

P252A: ENGINE OIL QUALITY SENSOR CIRCUIT

OVERVIEW

Severity	:	<div><div></div></div> High
DIY Difficulty Level	:	<div><div>Intermediate</div></div>
Repair Cost	:	\$100-\$300
Can I Still Drive?	:	Yes (Short-term only)

What Does The P252A Code Mean?

OBD-II trouble code P252A and related codes [P252B](#), [P252C](#), [P252D](#), and [P252E](#) are associated with the engine oil quality sensor circuit.

The purpose of the oil quality sensor circuit is to send a signal to the Engine Control Module (ECM) representing the overall status of the engine oil. This circuit monitors the quality, temperature and the level of the engine oil.

The engine oil quality sensor is one of the main components within this circuit and is mounted to the engine oil pan. The exact location and how the sensor functions is vehicle specific, but the purpose of this circuit is the same. Configurations will vary based on the instruments incorporated to monitor the engine oil and display the status on the dashboard to alert the driver. Some vehicles may be equipped with oil temperature, oil level and/or oil pressure gauges or readouts.

When the ECM detects improper voltage or resistance within the oil quality sensor circuit, code P252A will be set and the check engine light, service engine soon light or both may be illuminated. In some situations, the ECM may shut the engine down and prevent it from restarting until the issue is corrected and the code has been cleared.

What Are The Symptoms Of The P252A Code?

Symptoms of a P252A trouble code may include:

- Engine may not crank over
- Low oil pressure gauge reading
- Service engine soon light illuminated
- Check engine light illuminated
- Check Oil message on instrument cluster

What Are The Potential Causes Of The P252A Code?

Causes for this P252A code may include:

- Defective engine oil quality sensor
- Low engine oil level
- Poor quality oil
- Faulty or damaged wiring
- Corroded, damaged or loose connector
- Defective ECM

How Can You Fix The P252A 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 quality sensor circuit and look for obvious physical damage. Based on the specific vehicle, this circuit may incorporate several components including the oil quality sensor, switches, fault indicators, an oil pressure gauge and the ECM. 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 ECM. Consult the specific tech data for the vehicle to verify the configuration of the oil quality sensor circuit and confirm every component incorporated within the circuit which may include a fuse or a fuse-able link.

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.

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, shorted or corroded and must be repaired or replaced.

Severity Description

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

Reference Sources

[P252A Engine Oil Quality Sensor Circuit](#), OBD-Codes.