

GENERIC · POWERTRAIN

P250B

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P250B

Engine Oil Level Sensor Circuit Range/Performance

P250B indicates the engine control module has detected an out-of-range or erratic signal from the engine oil level sensor circuit, meaning the reported oil level does not match expected values under the current operating conditions. The computer compares the sensor voltage against a calibrated range and flags the code when the signal stays too high, too low, or changes implausibly for a set period.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Low

FIX DIFFICULTY

Intermediate

AREA

Vehicle speed, idle control and auxiliary inputs

Symptoms you may notice

- Illumination of the check engine light or oil level warning lamp on the dashboard
- Often no symptoms besides the warning light, especially if the oil level is actually correct
- Intermittent or flickering oil level warning during cornering, braking, or rough roads
- A false low-oil warning even after verifying the dipstick shows a full sump
- In rare cases, a delayed or missing low-oil warning when the level genuinely drops
- No noticeable change in engine performance or drivability in most instances

Common causes, most likely first

- 1 Faulty engine oil level sensor giving an erratic or stuck signal
- 2 Damaged, chafed, or corroded wiring in the sensor circuit, often near the oil pan or exhaust heat
- 3 Loose or contaminated electrical connector at the oil level sensor
- 4 Oil level sensor signal circuit shorted to ground or to voltage
- 5 Engine control module software calibration issue or internal fault in the sensor input circuit
- 6 Incorrect oil level or heavily degraded oil affecting sensor readings
- 7 Aftermarket or incorrect sensor installed that does not match the vehicle's calibration



How to diagnose and fix it

- 1 Verify the actual engine oil level with the dipstick and correct it if needed, then clear the code and retest
- 2 Inspect the oil level sensor connector and wiring for corrosion, looseness, or heat damage, and repair as necessary
- 3 Check the sensor signal voltage with a scan tool or multimeter while raising and lowering the oil level to confirm the sensor responds smoothly
- 4 Perform a resistance or voltage test on the sensor according to the manufacturer's specification to confirm it is within range
- 5 Check for continuity and shorts in the signal and ground circuits between the sensor and the engine control module
- 6 Replace the engine oil level sensor if testing confirms it is faulty, then clear codes and verify the repair
- 7 If the circuit and sensor test good, check for technical service bulletins or software updates for the engine control module before condemning it

What the oil level sensor code hides

- A P250B is frequently set by a sensor that is simply dirty or coated with sludge, so removing and cleaning it before replacement often resolves the fault.
- The code can be triggered by low oil level itself, so always verify the dipstick before assuming the sensor has failed.
- Wiring harness damage near the oil pan is a common missed cause, especially on vehicles that have been driven over debris or had recent engine work.
- Some vehicles use the same sensor for oil level and oil temperature, so a fault in the temperature portion can set a level range code without an obvious level problem.
- After an oil change, a sensor that was unplugged and reconnected poorly can set this code, so check connector seating before deeper diagnostics.

Can I keep driving with P250B?

It is generally safe to continue driving with P250B because the fault affects only the oil level monitoring system and does not impair engine operation. However, you should manually check the oil level with the dipstick at every fuel stop until the code is repaired, since the warning system may no longer alert you to a genuine low-oil condition.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Vehicle-specific wiring diagram
- Socket and ratchet set
- Oil drain pan and funnel



Reading P250B

- P** Powertrain: engine, transmission and emissions.
- 2** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 5** Vehicle speed, idle control and auxiliary inputs.
- 0B** The exact fault within that area.

Often seen with

P0524 Engine Oil Pressure Too Low · **P06DD** Engine Oil Pressure Control Circuit Performance/Stuck Off · **P250A** Engine Oil Level Sensor Circuit · **P250C** Engine Oil Level Sensor Circuit Low · **P250D** Engine Oil Level Sensor Circuit High

See it working

Watch the animated explainer [Excavator Simulator: Hydraulics You Can Operate](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p250b/>

