

GENERIC · POWERTRAIN

P055B

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P055B

Engine Oil Pressure Sensor/Switch B Range/Performance

P055B indicates that the powertrain control module has detected an out-of-range or erratic signal from the 'B' engine oil pressure sensor or switch circuit, which is often a secondary monitoring point on vehicles with variable oil pressure control. The computer compares the sensor's voltage or pressure reading against expected values for the current engine speed and temperature, and flags the code when the signal falls outside a calibrated window or fails a rationality check.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Vehicle speed, idle control and auxiliary inputs

Symptoms you may notice

- Illumination of the oil pressure warning light or a generic check engine light, often with no other noticeable symptoms
- Oil pressure gauge reading that fluctuates erratically, pegs at maximum, or drops to zero intermittently
- A warning chime or message on the driver information center advising to stop the engine
- Reduced engine power or limp-home mode on some vehicles that use oil pressure for variable valve timing or cylinder deactivation
- Intermittent flickering of the oil pressure lamp at idle when the engine is hot
- Rough running or stalling only if the faulty sensor circuit shares a reference voltage with other engine sensors

Common causes, most likely first

- 1 Faulty 'B' oil pressure sensor or switch itself, often due to internal contamination or diaphragm failure
- 2 Damaged, chafed, or corroded wiring in the sensor 'B' signal or ground circuit
- 3 Loose or corroded electrical connector at the sensor, especially on engines with high vibration or oil seepage
- 4 Low engine oil level or degraded oil that causes actual pressure fluctuations the sensor correctly reports
- 5 Restricted oil filter or pickup screen causing intermittent pressure drops that trip the rationality check
- 6 Failed oil pressure relief valve or variable oil pump solenoid affecting the pressure the sensor sees
- 7 Powertrain control module software calibration issue or internal driver fault on the sensor circuit



How to diagnose and fix it

- 1 Verify engine oil level and condition, then check for any stored freeze-frame data to see the engine speed and temperature when the code set
- 2 Inspect the 'B' oil pressure sensor connector and harness for looseness, corrosion, or oil intrusion, and repair as needed
- 3 Measure the sensor signal voltage and ground reference at the connector with a multimeter and compare to the manufacturer's specification
- 4 Test the sensor's resistance or voltage output across its operating range using a pressure gauge and scan tool live data
- 5 Check for technical service bulletins or calibration updates that address false P055B setting on the specific vehicle
- 6 Replace the 'B' oil pressure sensor or switch if electrical tests confirm it is out of specification, then clear codes and verify
- 7 If the code persists, perform an actual oil pressure test with a mechanical gauge to rule out a genuine low-pressure condition before condemning the PCM

What the 'B' sensor really monitors

- Many vehicles use two oil pressure sensors: 'A' for the primary gauge or warning lamp and 'B' for a secondary function such as variable valve timing feedback or cylinder deactivation, so a P055B may not affect the dash gauge at all.
- A common misdiagnosis is replacing the sensor when the real fault is a shared five-volt reference or ground circuit that also feeds the camshaft or crankshaft position sensors, causing multiple codes to set together.
- On engines with variable displacement oil pumps, a sticking pump solenoid can produce pressure swings that the 'B' sensor correctly reports, so the sensor is not always the culprit.
- Oil sludging or a restricted filter can cause intermittent pressure drops that only appear at certain engine speeds, setting P055B without ever illuminating the low-oil-pressure warning lamp.
- Some aftermarket oil filters with poor anti-drainback valves cause pressure spikes on cold start that trip the rationality check, and the code returns even after sensor replacement until the filter is changed.

Can I keep driving with P055B?

If the oil pressure warning lamp is not illuminated and the engine sounds normal, you can drive cautiously to a repair shop, but avoid high engine speeds and heavy loads. If the red oil pressure lamp is on or the engine is making ticking or knocking noises, stop driving immediately and have the vehicle towed to prevent catastrophic engine damage.



Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter with back-probing pins
- Mechanical oil pressure test gauge kit
- Socket set and trim removal tools for sensor access
- Electrical contact cleaner and dielectric grease

Reading P055B

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

Often seen with

P0520 Engine Oil Pressure Sensor/Switch Circuit Malfunction · **P0521** Engine Oil Pressure Sensor/Switch Circuit Range/Performance · **P0522** Engine Oil Pressure Sensor/Switch Circuit Low Voltage · **P0523** Engine Oil Pressure Sensor/Switch Circuit High Voltage · **P055A** Engine Oil Pressure Sensor/Switch B Circuit

See it working

Watch the animated explainer [How Airbags Work: A 50 km/h Crash in Slow Motion](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p055b/>

