

GENERIC · POWERTRAIN

P0523

OBD-II TROUBLE CODE

P0523

Engine Oil Pressure Sensor/Switch Circuit High Voltage

P0523 means the engine control module (ECM) has detected an abnormally high voltage on the engine oil pressure sensor circuit, typically above 4.5 volts on a 5-volt reference system. The ECM expects the sensor signal to vary within a normal range as oil pressure changes, so a stuck-high voltage indicates an open circuit, a short to voltage, or a failed sensor.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Vehicle speed, idle control and auxiliary inputs

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Oil pressure warning light or message on the dashboard
- Erratic or inaccurate oil pressure gauge reading, such as pegging high
- Engine may enter limp mode or reduced power on some vehicles
- Audible warning chime or message center alert related to oil pressure

Common causes, most likely first

- 1 Open or broken wire in the sensor signal circuit
- 2 Short to voltage on the signal circuit
- 3 Failed engine oil pressure sensor
- 4 Corroded or loose electrical connector at the sensor
- 5 Faulty ECM or poor ECM ground connection
- 6 Contaminated or incorrect engine oil affecting sensor readings

How to diagnose and fix it

- 1 Verify oil level and condition; top off or change oil if needed
- 2 Inspect the sensor connector and wiring for damage, corrosion, or looseness
- 3 Measure reference voltage and ground at the sensor connector with a multimeter
- 4 Check the signal circuit for a short to voltage or open circuit with a wiring diagram
- 5 Test the oil pressure sensor with a known-good gauge or scan tool data
- 6 Replace the oil pressure sensor if tests confirm it is faulty
- 7 Clear the code and verify the repair with a test drive and live data



What a high oil pressure code really means

- A P0523 is often set by a simple unplugged sensor or a broken wire rather than a failed sensor, so always check the connector first.
- Some vehicles use the oil pressure sensor for variable valve timing or cylinder deactivation, so a high voltage fault can cause drivability issues beyond a warning light.
- A shorted sensor can pull the 5-volt reference down and set unrelated codes in other sensors, so check for multiple codes before replacing parts.
- Aftermarket sensors are a common source of repeat failures; use an OEM-quality replacement to avoid comebacks.
- The ECM may default to a calculated oil pressure value when the sensor fails, masking the fault until the code is stored.

Can I keep driving with P0523?

It is generally safe to drive short distances to a repair shop, but avoid heavy loads or high speeds until the fault is fixed. If the oil pressure warning light is on or the engine sounds noisy, stop driving immediately to prevent damage.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the specific vehicle
- Socket set and basic hand tools
- Oil pressure test gauge kit

Reading P0523

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.
23	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 · **P0524** Engine Oil Pressure Too Low



See it working

Watch the animated explainer [How Regenerative Braking Works in Electric Cars](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0523/>

