

GM · POWERTRAIN

P1189

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1189 · GM

Engine Oil Pressure Switch Circuit

P1189 on a GM vehicle means the engine control module (ECM) has detected an unexpected signal from the engine oil pressure switch circuit, which is a simple on/off switch that confirms the engine has built oil pressure. The ECM compares the switch signal against what it expects based on engine speed and other operating conditions, and it sets this code when the circuit stays open, stays grounded, or behaves outside the expected window.

SYSTEM

Powertrain

CODE TYPE

GM specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

**Fuel and air
metering**

Symptoms you may notice

- Oil pressure warning light or message on the instrument cluster, often accompanied by a chime
- Check Engine Light illuminated with no other obvious driveability complaint
- Oil pressure gauge reading zero or pegged high if the vehicle uses a gauge driven by the same switch circuit
- Engine may enter reduced-power or fail-safe mode on some GM platforms when the switch signal is implausible
- Intermittent warning light that comes and goes with bumps, temperature changes, or engine vibration
- Often no symptoms besides the warning light, especially when the switch itself has failed open

Common causes, most likely first

- 1 Failed oil pressure switch, which is the most common cause on high-mileage GM engines
- 2 Damaged or oil-soaked switch connector pigtail, a frequent issue on engines with the switch mounted low near the filter
- 3 Chafed, pinched, or corroded wiring between the switch and the ECM
- 4 Poor ground connection at the engine block or chassis point used by the switch circuit
- 5 Contaminated or sludged oil passage at the switch port causing a false low-pressure reading
- 6 Actual low engine oil pressure from a worn oil pump, worn bearings, or a stuck pressure relief valve
- 7 ECM internal driver fault, which is rare but does occur after water intrusion or voltage spikes



How to diagnose and fix it

- 1 Check engine oil level and condition first, then verify oil pressure with a mechanical gauge at the switch port to rule out a real pressure problem
- 2 Inspect the oil pressure switch connector and pigtail for oil wicking, corrosion, or a loose terminal, and repair or replace the pigtail as needed
- 3 Test the switch circuit with a multimeter: confirm ground integrity and check for voltage drop or an open on the signal wire back to the ECM
- 4 Replace the oil pressure switch if the circuit tests good but the switch does not change state when pressure is applied or removed
- 5 Clear the code and perform a road test with a scan tool watching the oil pressure switch status parameter to confirm the repair
- 6 If the code returns with a known-good switch and intact wiring, check for an ECM software update or a faulty ECM driver before condemning the module
- 7 Verify that the correct oil viscosity and filter are installed, since wrong oil can cause pressure readings that trigger the switch circuit logic

What the oil pressure switch circuit really checks

- This code is about the switch circuit, not a pressure sensor, so a scan tool will show the switch as open or closed rather than a pressure value in psi.
- A common misdiagnosis is replacing the oil pump when the actual fault is a five-dollar switch connector that has filled with oil and lost contact.
- On many GM engines the oil pressure switch also feeds the fuel pump prime circuit, so a failed switch can cause a hard start or no-start that seems unrelated to oil pressure.
- The ECM may set P1189 only after the engine reaches a certain speed or run time, so a quick key-on check can miss an intermittent switch that fails hot.
- Sludge or a restricted oil passage at the switch port can make a good switch read low, so always confirm with a mechanical gauge before replacing parts.

Can I keep driving with P1189?

You can usually drive a short distance to a repair shop if the oil level is correct and the engine sounds normal, but avoid hard acceleration and long trips until the circuit is diagnosed. If the oil pressure warning light is on and the engine is noisy or ticking, stop driving immediately and have the vehicle towed, because real low oil pressure can destroy the engine.



Tools that help

- Scan tool with GM-specific live data capability
- Mechanical oil pressure test gauge
- Digital multimeter
- Wire terminal pick and crimping tool
- Oil filter wrench and drain pan

Reading P1189

- P** Powertrain: engine, transmission and emissions.
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- 1** Manufacturer-specific code (GM): its meaning depends on the make.
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- 1** Fuel and air metering.
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- 89** The exact fault within that area.

Often seen with

P1188 Linear Oxygen Sensor Compensation Resistor Short To Ground · **P1188** O2 Sensor Heater Circuit Resistance · **P1188** Engine Oil Pressure Sensor Circuit High Voltage · **P1188** Calibration Memory Fault · **P1188** EOT Sensor Circuit High Voltage · **P1188** Fuel Control Bank 1 Sensor 1 · **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

See it working

Watch the animated explainer [How Hydraulic Brakes Work: Pedal to Caliper](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/gm-p1189/>

