

GENERIC · POWERTRAIN

P0199

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0199

Engine Oil Temperature Sensor Intermittent

P0199 means the engine control module (ECM) has seen the engine oil temperature sensor signal drop out or behave erratically for a calibrated period, not just a single glitch. The ECM compares the oil temperature circuit against expected values and flags the code when the signal is intermittent rather than completely open or shorted.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Low

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering

Symptoms you may notice

- Often no symptoms besides the warning light, especially if the fault is brief and the ECM can substitute a default oil temperature.
- A intermittent or fluctuating engine oil temperature reading on a scan tool or dashboard gauge, if equipped.
- Rough running or poor fuel economy when the ECM misjudges oil temperature and adjusts timing or fuel delivery incorrectly.
- Extended crank times or a slight stumble on cold starts if the ECM cannot confirm oil temperature for cold-start enrichment.
- A stored freeze-frame showing the fault occurred under specific conditions such as vibration, heat soak, or moisture.
- In rare cases, reduced engine power or a limp-home strategy if the ECM cannot trust the oil temperature signal.

Common causes, most likely first

- 1 A failing engine oil temperature sensor that tests fine when cold but breaks down internally when hot or vibrating.
- 2 Chafed, cracked, or heat-damaged wiring between the sensor and the ECM, often near exhaust components or sharp brackets.
- 3 A loose, corroded, or water-intruded connector at the sensor or at the ECM harness, causing an intermittent connection.
- 4 Poor sensor ground or a shared ground circuit with other engine sensors that intermittently drops out.
- 5 Oil contamination or sludge buildup on the sensor tip that insulates it and causes erratic resistance changes.
- 6 A failing ECM driver or internal circuit, which is rare but possible after all wiring and sensor checks pass.
- 7 Aftermarket or incorrect sensor installed previously with a resistance curve that does not match the ECM calibration.



How to diagnose and fix it

- 1 Connect a scan tool and monitor the engine oil temperature parameter while wiggling the sensor connector and harness to reproduce the intermittent dropout.
- 2 Inspect the sensor connector and wiring for corrosion, chafing, heat damage, and loose pins, repairing any damage found before replacing parts.
- 3 Measure the sensor resistance cold and again after warming the engine, comparing the change against the expected curve for the vehicle.
- 4 Check the sensor ground circuit for excessive voltage drop under load, cleaning or repairing grounds as needed.
- 5 If the sensor is original and the wiring passes inspection, replace the engine oil temperature sensor with a quality part that matches the OEM specification.
- 6 Clear the code and perform a road test with the scan tool recording, confirming the oil temperature signal stays stable through the full warm-up cycle.
- 7 If the code returns with a known-good sensor and verified wiring, test the ECM circuit and consult the factory service information for further pinpoint tests.

Why an intermittent oil temp code fools shops

- A sensor that passes a cold resistance test can still set P0199 because the internal element opens only at operating temperature, so the sensor must be tested hot as well as cold.
- Technicians often replace the sensor first and miss a chafed wire behind the engine that only loses contact during acceleration or over bumps, which is why harness wiggle tests matter.
- P0199 does not mean the sensor is dead; it means the signal is intermittent, so a completely unplugged sensor would normally set an open-circuit code instead.
- Oil temperature sensors share ground and reference circuits with other engine sensors on many vehicles, so a fault in a shared ground can set P0199 alongside unrelated sensor codes.
- A weak or failing battery or charging system can cause intermittent sensor signals on some vehicles, so check system voltage before condemning the sensor.

Can I keep driving with P0199?

It is generally safe to continue driving with P0199 because the ECM can substitute a default oil temperature and the engine is not at immediate risk. Avoid heavy towing or sustained high-speed driving until the fault is repaired, since the ECM may not protect the engine as precisely when oil temperature data is unreliable.



Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter with resistance and voltage-drop functions
- Wiring diagram or factory service information for the vehicle
- Contact cleaner and dielectric grease for connector repair
- Heat-resistant wire loom and electrical tape for harness repair
- Infrared thermometer to compare sensor readings against actual oil temperature

Reading P0199

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
1	Fuel and air metering.
99	The exact fault within that area.

Often seen with

P0117 Engine Coolant Temperature Circuit Low Input · **P0195** Engine Oil Temperature Sensor Malfunction · **P0196** Engine Oil Temperature Sensor Range/Performance · **P0197** Engine Oil Temperature Sensor Low · **P0198** Engine Oil Temperature Sensor High

See it working

Watch the animated explainer [How ABS Works: Anti-Lock Brakes in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0199/>

