

BMW · POWERTRAIN

P1134

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1134 · BMW

O2 Sensor Heater Circuit Signal Intermittent Bank 1 Sensor 1

P1134 on a BMW means the engine computer (DME) has detected an intermittent fault in the heater circuit for the pre-catalyst oxygen sensor on bank 1, sensor 1. The heater is a resistive element inside the sensor that brings it up to operating temperature quickly; the DME monitors the current flow through that circuit and flags the code when the signal drops out or behaves erratically.

SYSTEM

Powertrain

CODE TYPE

BMW specific

SEVERITY

Low

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering

Symptoms you may notice

- Often no symptoms besides the warning light, because the sensor still works once exhaust heat warms it up.
- A brief check engine light that comes and goes, especially after cold starts or in damp weather.
- Slightly rough idle or hesitation during the first minute or two after a cold start.
- Poor fuel economy on short trips where the sensor never reaches full operating temperature.
- In rare cases, a stored pending code that clears itself after a few drive cycles.

Common causes, most likely first

- 1 Corroded, loose, or water-infiltrated connector pins at the oxygen sensor or the DME harness.
- 2 A failing oxygen sensor heater element that opens or shorts only when cold or vibrating.
- 3 Chafed or broken heater circuit wiring near the exhaust manifold or along the harness route.
- 4 A weak or intermittent relay or fuse supplying the oxygen sensor heater circuit.
- 5 Internal DME driver circuit fault, though this is far less common than wiring or sensor issues.
- 6 Oil or coolant contamination at the connector causing intermittent resistance changes.



How to diagnose and fix it

- 1 Clear the code and road-test with a scan tool recording freeze-frame and live heater circuit data to confirm the fault returns.
- 2 Inspect the oxygen sensor connector and DME harness for corrosion, water intrusion, and loose pins; clean and reseat as needed.
- 3 Measure heater resistance at the sensor connector and compare to BMW specifications for the exact engine variant.
- 4 Check the heater circuit fuse and relay, and verify voltage and ground at the sensor connector with the key on.
- 5 Wiggle-test the harness while watching live heater current or resistance on the scan tool to expose intermittent breaks.
- 6 Replace the bank 1 sensor 1 oxygen sensor if resistance is out of spec or the heater is open when cold.
- 7 If wiring and sensor check out, perform a continuity and load test on the heater circuit back to the DME before condemning the DME.

Intermittent faults hide in the connector

- Most P1134 cases on BMW engines trace back to the sensor connector rather than the sensor itself, because heat and road splash degrade the seals and let moisture reach the pins.
- A heater that tests good on a warm engine can still be faulty; always measure resistance when the sensor is cold, since the element can open only at low temperature.
- The DME may set P1134 without ever illuminating the check engine light if the fault self-clears within a few drive cycles, so a stored code with no light is still worth diagnosing.
- Replacing the oxygen sensor without checking the heater circuit fuse and relay often leads to a repeat code, because a weak relay can drop voltage intermittently under load.
- Bank 1 sensor 1 on BMW inline-six and V8 engines is often the hardest sensor to reach, and a pinched harness during installation is a common cause of a comeback code.

Can I keep driving with P1134?

You can keep driving with P1134 because the sensor still functions once exhaust heat warms it, but avoid long periods of short cold-start trips and get the circuit checked soon to prevent fuel trim and emissions issues from developing.

Tools that help

- BMW-compatible scan tool with live data and freeze-frame capability
- Digital multimeter with resistance and voltage measurement
- Back probe kit for testing connector pins without damage
- Wiring diagram for the specific BMW engine and chassis
- Contact cleaner and dielectric grease for connector service



Reading P1134

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

Often seen with

P1133 Oxygen Sensor Heating Circuit Bank 1 + 2 Sensor 1 Electrical · **P1154** Manifold Switch Over Malfunction · **P1133** Air/Fuel Sensor Circuit Response Bank 1 Sensor 1 · **P1133** Bank 1 Fuel Control Shifted Lean · **P1154** Bank 2 Fuel Control Shifted Rich FAOSC · **P1133** O2 Sensor Insufficient Switching (Bank 1 Sensor 1) · **P1154** O2 Sensor Low Transition Time (Bank 2 Sensor 1) · **P1133** Bank 1 Fuel Control Shifted Lean · **P1154** Bank 2 Fuel Control Shifted Rich · **P1133** HO2S Insufficient Switching · **P1154** HO2S Transition Time Ratio · **P1133** O2 Sensor Heater Control Circuit Bank 2 Sensor 1 · **P0130** O2 Sensor Circuit Malfunction (Bank 1 Sensor 1) · **P0135** O2 Sensor Heater Circuit Malfunction (Bank 1 Sensor 1) · **P0141** O2 Sensor Heater Circuit Malfunction (Bank 1 Sensor 2)

See it working

Watch the animated explainer [How the PCV System Works: Crankcase Ventilation](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/bmw-p1134/>

