

VOLKSWAGEN · POWERTRAIN

P1198

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1198 · Volkswagen

Oxygen Sensor Heater Circuit Bank 1 Sensor 2 Electrical Malfunction

P1198 on Volkswagen vehicles indicates that the engine control module has detected an electrical fault in the heater circuit of the downstream oxygen sensor on bank 1, which is the sensor after the catalytic converter. The computer monitors the heater element's current draw and expects a specific resistance range when the heater is commanded on, and this code sets when the circuit is open, shorted to ground, or shorted to power.

SYSTEM

Powertrain

CODE TYPE

**Volkswagen
specific**

SEVERITY

Low

FIX DIFFICULTY

Intermediate

AREA

**Fuel and air
metering**

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Slightly higher fuel consumption because the sensor takes longer to reach operating temperature
- A pending or stored code that returns quickly after clearing if the fault is permanent
- In rare cases, a rough idle or hesitation during cold starts if the sensor heater also affects the sensor signal
- No driveability complaints at all when the fault is limited to the heater element

Common causes, most likely first

- 1 Failed oxygen sensor heater element inside the downstream sensor
- 2 Corroded, loose, or damaged electrical connector at the sensor
- 3 Broken or chafed wiring between the sensor and the engine control module
- 4 Blown fuse that supplies power to the oxygen sensor heater circuit
- 5 Faulty engine control module driver for the heater circuit, though this is less common
- 6 Water intrusion into the connector or wiring harness causing corrosion



How to diagnose and fix it

- 1 Check the fuse that feeds the oxygen sensor heater circuit and replace it if blown
- 2 Inspect the sensor connector and wiring for corrosion, damage, or loose pins, and repair as needed
- 3 Measure the resistance of the heater element at the sensor connector and compare to the manufacturer's specification
- 4 Check for power and ground at the heater circuit with the key on and the engine running
- 5 If the circuit checks out, replace the downstream oxygen sensor with a quality part
- 6 Clear the code and verify the repair by running the oxygen sensor heater monitor to completion
- 7 If the code persists after sensor replacement, trace the wiring back to the engine control module and check for continuity and shorts

Don't overlook the heater fuse and wiring

- A blown fuse for the oxygen sensor heater circuit is a common cause that many people miss because they replace the sensor first without checking the fuse.
The downstream sensor heater can fail while the sensor still produces a plausible signal, so the engine may run fine and the only clue is the stored code.
- Corrosion inside the connector is a frequent culprit on Volkswagens, especially in regions where road salt is used, and it can mimic a failed sensor.
- This code does not always mean the sensor itself is bad; a shorted or open wire between the sensor and the engine control module will set the same code.
After replacing the sensor, the heater monitor must run before the code will clear from the system, so a short drive cycle may be needed to confirm the repair.

Can I keep driving with P1198?

You can usually continue driving with this code because the downstream oxygen sensor heater only affects emissions and cold-start sensor readiness, but avoid long periods of idling or cold-weather driving until repaired. Have the fault diagnosed soon to prevent unnecessary emissions and to ensure the sensor provides accurate feedback for fuel control.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Fuse puller or test light
- Socket set and oxygen sensor wrench
- Wiring diagram for the specific Volkswagen model



Reading P1198

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

Often seen with

P1197 Oxygen Sensor Heater Circuit Bank 2 Sensor 1 Electrical Malf · **P1199** Oxygen Sensor Heater Circuit Bank 2 Sensor 2 Electrical Malf · **P1197** Mileage Switch Circuit · **P1199** Fuel Level Input Circuit Low · **P1197** O2 Sensor 1/2 (Bank 1 Sensor 2) Slow During Catalyst Monitor · **P1199** Radiator Temperature Sensor Voltage Too Low · **P1197** Key Off Voltage Low · **P1197** O2 Sensor 1/2 (Bank 1 Sensor 2) Slow During Catalyst Monitor · **P1199** Radiator Temperature Sensor Voltage Too Low · **P0135** O2 Sensor Heater Circuit Malfunction (Bank 1 Sensor 1) · **P0136** O2 Sensor Circuit Malfunction (Bank 1 Sensor 2) · **P0141** O2 Sensor Heater Circuit Malfunction (Bank 1 Sensor 2)

See it working

Watch the animated explainer [How a Rotary Engine Works: Wankel in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/volkswagen-p1198/>

