

VOLKSWAGEN · POWERTRAIN

P1184

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1184 · Volkswagen

Linear Oxygen Sensor Common Ground Wire Open

P1184 on Volkswagen vehicles indicates that the engine control module (ECM) has detected an open circuit in the common ground wire for the linear oxygen sensor, also known as the wideband lambda sensor. This ground wire provides the reference voltage for the sensor's internal heater and signal circuit, and an open connection prevents the ECM from accurately reading the air-fuel ratio.

SYSTEM

Powertrain

CODE TYPE

Volkswagen specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Rough idle or hesitation during acceleration due to incorrect fuel mixture
- Poor fuel economy as the ECM defaults to a rich or open-loop fuel strategy
- Failed emissions test due to increased exhaust emissions
- Intermittent engine stumbling or surging if the ground connection is loose
- Extended cranking or hard starting in some cases

Common causes, most likely first

- 1 Broken or corroded wire in the common ground circuit between the oxygen sensor and the ECM
- 2 Loose or corroded ground connection at the sensor harness connector or chassis ground point
- 3 Damaged sensor connector pins or terminals causing high resistance
- 4 Faulty oxygen sensor with an internal open circuit in the ground path
- 5 Rodent damage or physical abrasion of the ground wire
- 6 ECM internal fault affecting the ground circuit (rare)



How to diagnose and fix it

- 1 Visually inspect the oxygen sensor wiring harness for damage, corrosion, or loose connections
- 2 Check the sensor connector pins for tightness and clean any corrosion
- 3 Measure resistance of the common ground wire from the sensor connector to the ECM connector; repair if open
- 4 Verify ground integrity at the chassis ground point and clean or tighten as needed
- 5 If wiring is intact, test the oxygen sensor heater and signal circuits according to factory specifications
- 6 Replace the linear oxygen sensor if internal ground is open
- 7 Clear the fault codes and perform a road test to verify the repair

Common ground wire faults often misdiagnosed

- The common ground wire for the linear oxygen sensor is separate from the sensor's heater ground, so a heater circuit code may not be present even when the sensor ground is open.
- A loose chassis ground point shared with other sensors can cause P1184 along with multiple other codes, leading to unnecessary sensor replacement.
- Volkswagen's linear oxygen sensor uses a dedicated ground wire that is prone to corrosion at the connector, especially in regions with road salt.
- Technicians sometimes replace the oxygen sensor without checking the ground circuit, only to find the code returns due to a wiring issue.
- P1184 can be set intermittently by a wire that is only open when the engine moves under load, so wiggle testing the harness is essential.

Can I keep driving with P1184?

You can drive the vehicle with P1184, but the engine may run rich and fuel economy will suffer; avoid prolonged driving and have the fault diagnosed soon to prevent catalytic converter damage.

Tools that help

- Digital multimeter
- OBD-II scan tool
- Wiring diagram
- Terminal pick and electrical contact cleaner
- Soldering iron and heat shrink tubing



Reading P1184

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

Often seen with

P0130 O2 Sensor Circuit Malfunction (Bank 1 Sensor 1) · **P0131** O2 Sensor Circuit Low Voltage (Bank 1 Sensor 1) · **P0132** O2 Sensor Circuit High Voltage (Bank 1 Sensor 1) · **P0133** O2 Sensor Circuit Slow Response (Bank 1 Sensor 1) · **P0134** O2 Sensor Circuit No Activity (Bank 1 Sensor 1)

See it working

Watch the animated explainer [How a Wideband Air-Fuel Sensor Works](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/volkswagen-p1184/>

