



P1447 · Volkswagen

Catalyst Temperature Circuit Open Short To B+

P1447 on Volkswagen vehicles means the engine control module (ECM) has detected an open circuit or a short to battery voltage in the catalyst temperature sensor circuit, which is used to monitor the catalytic converter's operating temperature. The ECM expects a specific voltage range from the sensor and flags this code when the signal is outside that range, indicating a wiring or sensor fault rather than a catalyst efficiency problem.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Volkswagen specific	Medium	Intermediate	Auxiliary emission controls

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms.
- Slightly reduced fuel economy if the ECM enters a default catalyst protection mode.
- In rare cases, a rough idle or hesitation if the faulty circuit affects other shared sensor references.
- No visible smoke or performance change in most cases because the fault is electrical, not mechanical.
- Intermittent warning light if the open or short is temperature or vibration sensitive.

Common causes, most likely first

- 1 Failed catalyst temperature sensor (internal open or short to B+).
- 2 Damaged or corroded wiring harness between the sensor and the ECM.
- 3 Loose, corroded, or disconnected electrical connector at the sensor or ECM.
- 4 Short to battery voltage in the sensor signal wire due to chafed insulation.
- 5 Faulty ECM driver circuit for the catalyst temperature sensor (rare but possible).
- 6 Aftermarket or incorrect sensor installed that does not meet Volkswagen specifications.

How to diagnose and fix it

- 1 Scan all modules for stored codes and freeze-frame data to confirm P1447 is active and not a history code.
- 2 Visually inspect the catalyst temperature sensor connector and wiring for damage, corrosion, or loose pins.
- 3 Measure sensor resistance and compare to Volkswagen specifications; replace the sensor if out of range.
- 4 Check for short to battery voltage on the signal wire with a multimeter while wiggling the harness.
- 5 Perform a voltage drop test on the sensor ground circuit to rule out high resistance.
- 6 If wiring and sensor are good, test the ECM connector pins and circuit continuity back to the ECM.
- 7 Clear codes and perform a road test to verify the repair and ensure the monitor completes.



What most technicians overlook on P1447

- A short to B+ can be caused by a pinched wire near the exhaust heat shield, which is often missed during a visual inspection.
- The catalyst temperature sensor is sometimes confused with the oxygen sensor, but they serve different purposes and have different voltage ranges.
- A faulty sensor can read plausible temperatures when cold but fail only when hot, so testing must include a heat soak.
- The ECM may set P1447 as a companion code to other catalyst or oxygen sensor codes, so always check for related faults first.
- Replacing the catalytic converter without diagnosing the circuit is a common and expensive misdiagnosis for this code.

Can I keep driving with P1447?

You can generally continue driving with P1447 because the fault is electrical and does not affect engine safety, but avoid long periods of heavy load or towing until repaired to prevent potential catalyst overheating. Have the circuit inspected soon to avoid secondary damage or a failed emissions test.

Tools that help

- OBD-II scan tool with manufacturer-specific code reading capability
- Digital multimeter with back-probing pins
- Wiring diagram for the specific Volkswagen model
- Heat gun for sensor testing
- Socket set and trim removal tools for access

Reading P1447

P	Powertrain: engine, transmission and emissions.
1	Manufacturer-specific code (Volkswagen): its meaning depends on the make.
4	Auxiliary emission controls.
47	The exact fault within that area.

Often seen with

P1450 Secondary Air Injection System Circuit Short To B+ · **P1450** Barometric Pressure Sensor Too Low Or Too High · **P1450** Unable To Bleed Up Fuel Tank Vacuum · **P1450** Excessive Vacuum Leak · **P1450** Barometric Pressure Sensor Circuit · **P1450** Inability of Evaporative Emission Control System to Bleed Fu · **P1450** Barometric Pressure Sensor Circuit · **P1450** Diagnostic Module Tank Leakage DM-TL Switching Solenoid Open · **P0130** O2 Sensor Circuit Malfunction (Bank 1 Sensor 1) · **P0141** O2 Sensor Heater Circuit Malfunction (Bank 1 Sensor 2) · **P0420** Catalyst System Efficiency Below Threshold (Bank 1) · **P0430** Catalyst System Efficiency Below Threshold (Bank 2)

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/volkswagen-p1447/>

