

VOLKSWAGEN · POWERTRAIN

P1407

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1407 · Volkswagen

EGR Temperature Sensor Signal Too Low

P1407 on a Volkswagen means the engine control module has detected a signal from the exhaust gas recirculation (EGR) temperature sensor that is lower than the expected range for the current operating conditions. The sensor is a thermistor whose resistance changes with temperature, and the module interprets a persistently low voltage or resistance as an implausibly cold EGR flow.

SYSTEM

Powertrain

CODE TYPE

**Volkswagen
specific**

SEVERITY

Low

FIX DIFFICULTY

Intermediate

AREA

**Auxiliary emission
controls**

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Slightly rough idle or hesitation when the EGR valve opens during light-throttle cruising
- Poor fuel economy on longer trips if the fault causes the module to disable EGR operation
- Intermittent stumble or surge at steady highway speeds
- A stored freeze-frame showing low EGR temperature during warm-up or light load
- Failed emissions inspection in areas that test readiness monitors

Common causes, most likely first

- 1 Failed EGR temperature sensor (thermistor drift or open circuit)
- 2 Damaged or corroded wiring between the sensor and the engine control module
- 3 Loose or contaminated sensor connector causing high resistance
- 4 Clogged or restricted EGR passage preventing hot exhaust gas from reaching the sensor
- 5 Sticking or inoperative EGR valve that never opens fully
- 6 Engine control module software issue or faulty internal pull-up circuit (rare)



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data to confirm the code sets under light load or warm-up conditions
- 2 Inspect the EGR temperature sensor connector and wiring for corrosion, chafing, or loose pins
- 3 Measure sensor resistance cold and after warming the engine, comparing against Volkswagen specifications
- 4 Check the EGR valve for sticking or carbon buildup and verify it opens on command with a scan tool
- 5 Inspect and clean the EGR passage between the valve and the sensor port
- 6 Back-probe the sensor signal wire at the module and compare voltage to the sensor reading
- 7 Replace the EGR temperature sensor only after wiring and EGR flow have been ruled out, then clear codes and verify readiness

What a low EGR temperature really means

- A low signal often means the sensor is reporting a plausible but cold temperature because exhaust gas is not reaching it, so a clogged EGR passage can set P1407 without any sensor fault.
Volkswagen EGR temperature sensors are thermistors whose resistance rises as temperature falls, so a corroded connector adds resistance that the module reads as an implausibly cold sensor.
- Technicians who replace the sensor first frequently see the code return because the real problem was a sticking EGR valve or carbon-blocked passage.
- The code can set intermittently during cold weather or short-trip driving when the EGR system never reaches normal operating temperature, so freeze-frame data matters more than the code alone.
A faulty coolant temperature sensor or thermostat that keeps the engine cold can indirectly cause P1407 by preventing the EGR system from warming up as expected.

Can I keep driving with P1407?

The vehicle remains safe to drive with P1407 because the fault affects emissions rather than immediate engine safety, but avoid long periods of heavy load or towing until the EGR system is repaired. Address the code promptly to prevent secondary EGR valve or intake carbon issues and to pass emissions testing.

Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter with temperature probe
- Hand vacuum pump or scan-tool bidirectional EGR control
- Socket and wrench set for sensor and valve removal
- Contact cleaner and dielectric grease for connector service



Reading P1407

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

Often seen with

P1408 EGR Temperature Sensor Signal Too High · **P1400** EGR Valve Circuit Electrical Malfunction · **P1400** Sub-Throttle Position Sensor · **P1408** Manifold Differential Pressure Sensor Circuit Fault · **P1400** Fuel Tank Pressure Control Solenoid Low Input · **P1400** EGRC Solenoid Valve · **P1400** Manifold Differential Pressure Sensor Circuit · **P1400** DPFE Sensor Circuit Low Input · **P1408** EGR System Flow Out Of Key On Engine Running Self Test Range · **P1400** Exhaust Gas Recirculation Valve Position Control · **P1408** Exhaust Gas Recirculation Thermister · **P1408** Intake Manifold Pressure Sensor Circuit · **P1400** Differential Pressure Feedback Electronic Sensor Circuit Low · **P1408** EGR Flow Out of Self-Test Range · **P1408** Intake Manifold Pressure Sensor Circuit · **P1400** Heated Catalyst Battery Voltage or Current Too Low During He · **P0117** Engine Coolant Temperature Circuit Low Input · **P0402** EGR Flow Excessive Detected · **P0401** EGR Flow Insufficient Detected

See it working

Watch the animated explainer [Helicopter Simulator: Take Off, Hover and Land](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/volkswagen-p1407/>

