

VOLKSWAGEN · POWERTRAIN

P1454

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1454 · Volkswagen

Exhaust Gas Temperature Sensor 1 Short To Ground

P1454 on a Volkswagen means the engine control module has detected a short to ground on the signal circuit of exhaust gas temperature sensor 1, which is the first sensor in the exhaust stream. The computer monitors the sensor's voltage and flags this code when the signal wire reads near zero volts for longer than expected, indicating the circuit is grounded somewhere between the sensor and the module.

SYSTEM

Powertrain

CODE TYPE

Volkswagen specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Auxiliary emission controls

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Reduced engine power or limp mode if the module substitutes a default exhaust temperature value
- Slightly higher fuel consumption as the module may enrich the mixture for protection
- In rare cases, a rough idle or hesitation if the fault affects regeneration logic on a diesel particulate filter
- No driver-perceptible change in performance on many gasoline models

Common causes, most likely first

- 1 Exhaust gas temperature sensor internal failure shorting the signal to ground
- 2 Chafed or melted sensor harness rubbing against the exhaust or engine block
- 3 Corroded or water-filled connector at the sensor or at the engine control module
- 4 Damaged signal wire pinched under a component or routed incorrectly after prior repair
- 5 Faulty engine control module driver circuit, though this is uncommon
- 6 Aftermarket sensor with incorrect internal resistance or wiring pinout



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data for P1454 to confirm the fault is active and not stored from a past event
- 2 Visually inspect the sensor harness from the sensor connector to the first loom clip for chafing, melting, or pinched sections
- 3 Disconnect the sensor and measure resistance from the signal pin to ground on the sensor side to check for an internal short
- 4 With the sensor disconnected and the key on, measure voltage on the signal wire at the module side to see if the short is in the harness or the module
- 5 Perform a wiggle test on the harness while watching live exhaust temperature data to catch an intermittent short
- 6 Repair or replace the damaged section of harness, then clear the code and verify the sensor reads a plausible temperature after a cold start
- 7 If the harness and sensor test good, substitute a known-good sensor and recheck before condemning the engine control module

What a shorted EGT sensor really tells you

- A short to ground on the signal wire often comes from the harness touching the exhaust manifold after a clutch or turbo job, not from the sensor itself.
- On many Volkswagen diesel engines, a failed exhaust gas temperature sensor can disable diesel particulate filter regeneration without setting a separate regeneration code.
- The sensor connector is a common water trap on models with underbody shields missing, so check for green corrosion before replacing any parts.
- A shorted sensor can pull the 5-volt reference shared with other sensors, causing unrelated codes that disappear once the EGT circuit is repaired.
- Do not assume the sensor is bad because the code says sensor; a resistance check at the connector separates a sensor short from a harness short in minutes.

Can I keep driving with P1454?

You can usually drive the vehicle short distances to a repair shop, but avoid heavy acceleration, towing, or long highway trips because the module may run a protection strategy that affects fuel mixture and emissions. If the engine enters limp mode or you smell raw fuel, stop driving and have the vehicle towed.



Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter with resistance and voltage scales
- Wiring diagram for the specific Volkswagen model and engine
- Back probe pins or breakout leads
- Heat-resistant wire loom and electrical tape for harness repair

Reading P1454

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

Often seen with

P1453 Exhaust Gas Temperature Sensor 1 Open Short To B+ · **P1455** Exhaust Gas Temperature Sensor 1 Range Performance · **P1455** Fuel Tank Level Sensor Circuit · **P1455** Fuel Tank Sending Unit Open Or Short 1.8L · **P1453** Fuel Tank Pressure Relief Valve Malfunction · **P1455** Substantial Leak or Blockage in Evaporative Emission Control · **P1453** Secondary Air Injection Pump Relay Control Circuit Electrica · **P0544** Exhaust Gas Temperature Sensor Circuit (Bank 1 Sensor 1) · **P0545** Exhaust Gas Temperature Sensor Circuit Low (Bank 1 Sensor 1) · **P2463** Diesel Particulate Filter Restriction - Soot Accumulation

See it working

Watch the animated explainer [How a Padlock Works: Pin Tumbler Lock 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-p1454/>

