

VOLKSWAGEN · POWERTRAIN

P1172

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1172 · Volkswagen

Throttle Actuation Potentiometer Signal 2 Signal Too Low

P1172 on Volkswagen vehicles means the engine control module (ECM) has detected that the signal from throttle actuation potentiometer 2 is lower than the expected voltage range for the current throttle position. The ECM compares this second throttle position sensor against the primary sensor and sets the code when the second signal falls below a calibrated threshold, indicating a short to ground, an open circuit, or a faulty sensor track.

SYSTEM

Powertrain

CODE TYPE

Volkswagen specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Reduced engine power or limp mode triggered by the electronic throttle control system
- Hesitation or poor throttle response when accelerating from a stop
- Intermittent stumble or surge while cruising at steady speed
- A stored code accompanied by a message such as 'EPC' or 'Engine Fault Workshop' on the dashboard

Common causes, most likely first

- 1 Wiring harness damage between the throttle body potentiometer and the ECM, such as chafing, corrosion, or a broken wire
- 2 Faulty throttle body assembly where the second potentiometer track wears or fails internally
- 3 Poor electrical connection at the throttle body or ECM connector, often from water ingress or loose pins
- 4 Short to ground on the signal circuit for potentiometer 2
- 5 ECM internal fault affecting the throttle position sensor input circuit, though this is less common
- 6 Contamination or carbon buildup inside the throttle body interfering with the potentiometer wiper contact



How to diagnose and fix it

- 1 Scan all modules for fault codes and record freeze-frame data to confirm P1172 is current and not a stored history code
- 2 Inspect the throttle body connector and wiring harness for corrosion, loose pins, or chafed insulation, repairing as needed
- 3 Measure resistance and voltage on the potentiometer 2 signal circuit at the throttle body connector and compare with the manufacturer's specification
- 4 Perform a throttle body adaptation or calibration using a suitable scan tool after any repair or cleaning
- 5 Clean the throttle body internally with approved throttle body cleaner if carbon buildup is present, then recheck live data
- 6 Replace the throttle body assembly if the potentiometer 2 signal remains out of range after wiring and connector checks
- 7 Clear codes and road test the vehicle through several drive cycles to verify the repair and confirm no pending codes return

What most technicians miss on P1172

- A worn throttle body potentiometer track often produces a signal that tests fine at rest but drops out only through a certain sweep range, so a static multimeter check can pass while the fault is still present.
- Volkswagen throttle bodies are matched to the ECM, and fitting a used unit without performing the adaptation procedure will frequently set P1172 again even when the replacement part is good.
- Corrosion inside the throttle body connector caused by a missing or damaged weather seal is a common root cause that gets overlooked when the focus is on replacing the throttle body itself.
- P1172 can be set by a low battery or charging system fault that causes the ECM to log implausible sensor voltages during cranking, so check battery condition and ground straps before condemning the throttle body.
- On some Volkswagen engines, a dirty throttle plate that has been manually forced open during cleaning can disturb the learned adaptation values and trigger this code until a relearn is completed.

Can I keep driving with P1172?

You can usually drive the vehicle to a workshop, but expect reduced power and possible limp mode, so avoid heavy acceleration, towing, or long highway trips until the fault is repaired. If the engine enters limp mode repeatedly or the throttle response becomes unpredictable, stop driving and arrange a diagnostic scan.



Tools that help

- OBD-II scan tool with live data and throttle adaptation capability
- Digital multimeter with back-probing pins
- Wiring diagram for the specific Volkswagen model and engine
- Torx or hex bit set for throttle body removal
- Throttle body cleaner and lint-free shop towels
- Contact cleaner and dielectric grease for connector repair

Reading P1172

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

Often seen with

P1171 Throttle Actuation Potentiometer Signal 2 Range Performance · **P1173** Throttle Actuation Potentiometer Signal 2 Signal Too High · **P1173** HO2S Bank 2 Sensor 1 Circuit Fixed Bank 2 Sensor 1 · **P1171** System Too Lean Banks 1 And 2 (Lean Fuel Fault) · **P1171** Fuel System Lean During Acceleration · **P1171** Rotor Sensor Fault · **P1173** Rotor Calibration Fault · **P1171** Fuel System Lean During Acceleration · **P0121** Throttle Position Sensor A Circuit Range/Performance · **P0122** Throttle Position Sensor A Circuit Low Input · **P0222** Throttle Position Sensor B Circuit Low Input

See it working

Watch the animated explainer [How a Knock Sensor Works: Spark Timing and Octane](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/volkswagen-p1172/>

