

VOLKSWAGEN · POWERTRAIN

P1632

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1632 · Volkswagen

Accelerator Pedal Position Sensor 1 Power Supply Malfunction

P1632 on Volkswagen vehicles means the engine control module has detected a power supply fault on the accelerator pedal position sensor 1 circuit, which is the primary signal used to determine driver demand. The computer monitors the voltage feed to the sensor and flags this code when the supply is out of range, typically because of a wiring fault, a failing sensor, or a poor connection.

SYSTEM

Powertrain

CODE TYPE

Volkswagen specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Computer and output circuits

Symptoms you may notice

- The electronic throttle warning light or check engine light illuminates on the dashboard.
- The engine may enter limp mode, limiting power and engine speed to a fast idle.
- The accelerator pedal may feel unresponsive or require excessive travel to accelerate.
- Inconsistent engine speed or surging may occur as the sensor signal fluctuates.
- Often no symptoms besides the warning light, especially if the fault is intermittent.

Common causes, most likely first

- 1 A faulty accelerator pedal position sensor 1, worn internally and unable to maintain a stable supply.
- 2 Corroded, loose, or damaged electrical connectors at the pedal sensor or engine control module.
- 3 A chafed or broken wire in the sensor power supply circuit, often near the pedal assembly or bulkhead.
- 4 Poor ground connection for the sensor circuit, causing voltage drops under load.
- 5 A failing engine control module, though this is rare and should be diagnosed last.
- 6 Water ingress into the pedal sensor connector or wiring harness, leading to corrosion.



How to diagnose and fix it

- 1 Scan all modules for fault codes and record freeze-frame data to confirm P1632 is current and not a stored history code.
- 2 Visually inspect the accelerator pedal sensor connector and wiring for corrosion, water damage, or loose pins.
- 3 Back-probe the sensor power supply wire and measure voltage with the key on, engine off, comparing to the manufacturer's specification.
- 4 Perform a voltage drop test on the ground circuit and the power feed while wiggling the harness to expose intermittent faults.
- 5 Check the sensor's signal voltage with a scan tool while slowly pressing the pedal, looking for smooth progression without dropouts.
- 6 If wiring and connectors are good, replace the accelerator pedal position sensor assembly and clear the code.
- 7 After repair, clear all codes and perform a throttle adaptation or relearn procedure as required for the Volkswagen model.

What Most Techs Miss on P1632

- A common misdiagnosis is replacing the accelerator pedal sensor when the real fault is a corroded connector pin or a chafed wire in the harness near the pedal, so always load-test the circuit before condemning parts.
- P1632 can be set by a weak battery or charging system issue that causes a momentary voltage drop on the sensor supply, so check battery health and charging voltage first.
- On some Volkswagen models, the sensor power supply is shared with other sensors, and a short in a related circuit can pull down the voltage and set P1632 without any pedal fault.
- Intermittent P1632 codes often appear after driving over rough roads or in wet conditions, pointing to a wiring issue rather than a failed sensor.
- The code does not always mean the sensor is dead; a poor ground connection at the chassis can cause the same symptom and is frequently overlooked.

Can I keep driving with P1632?

You can usually drive the vehicle to a repair shop if the engine runs normally, but avoid heavy acceleration and be prepared for the engine to enter limp mode without warning. If the pedal becomes unresponsive or the engine idles erratically, stop driving and have the vehicle towed.

Tools that help

- OBD-II scan tool with manufacturer-specific software
- Digital multimeter with back-probe pins
- Wiring diagram for the accelerator pedal circuit
- Torx or hex socket set for pedal assembly removal
- Contact cleaner and dielectric grease



Reading P1632

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (Volkswagen): its meaning depends on the make.
- 6** Computer and output circuits.
- 32** The exact fault within that area.

Often seen with

P1633 Accelerator Pedal Position Sensor 2 Signal Too Low · **P1634** Accelerator Pedal Position Sensor 2 Signal Too High · **P1633** ECM · **P1633** Battery Overcharge Fault · **P1634** Generator Terminal B Circuit Open · **P1633** Battery Overcharge · **P1634** Alternator B Open 1.8L · **P1633** Ignition Power Circuit Low Voltage · **P1634** Ignition 1 Power Circuit Low Voltage · **P1634** Data Output Link Circuit Failure · **P1633** Throttle Valve Adaptation Limp Home Position · **P1634** Throttle Valve Adaptation Spring Test Failed · **P2122** Accelerator Pedal Position Sensor D Circuit Low · **P2123** Accelerator Pedal Position Sensor D Circuit High · **P2138** Throttle/Pedal Position Sensor D/E Voltage Correlation

See it working

Watch the animated explainer [EV Powertrain Trainer: How an Electric Car Drives](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/volkswagen-p1632/>

