

VOLKSWAGEN · POWERTRAIN

P1250

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1250 · Volkswagen

Fuel Level Too Low

P1250 on Volkswagen vehicles means the engine control module has calculated that the fuel level in the tank is too low for the current operating conditions, typically by comparing the fuel level sender signal against expected consumption and driving distance. The computer is not reporting a sensor failure but rather a fuel level condition that has crossed a calibrated threshold, often after the low fuel light has been ignored for an extended period.

SYSTEM

Powertrain

CODE TYPE

**Volkswagen
specific**

SEVERITY

Low

FIX DIFFICULTY

DIY

AREA

**Fuel and air
metering (injector
circuits)**

Symptoms you may notice

- Low fuel warning light illuminated on the instrument cluster, sometimes before the gauge reads empty
- Fuel gauge reading at or near the empty mark, or fluctuating erratically on older senders
- Engine may hesitate or stumble under acceleration if the tank is genuinely near empty and fuel pickup is uncovering
- Often no symptoms besides the warning light, with the vehicle driving normally
- In some cases a stored P1250 appears alongside a rough idle or lean-condition complaint after running the tank very low
- Fuel gauge may show a quarter tank while the code still sets, indicating a sender calibration issue rather than an actual empty tank

Common causes, most likely first

- 1 Genuinely low fuel level in the tank, the most common and simplest cause
- 2 Faulty or worn fuel level sender unit in the tank giving an inaccurate resistance reading
- 3 Wiring or connector corrosion between the fuel level sender and the instrument cluster or engine control module
- 4 Instrument cluster coding or adaptation values incorrect after a replacement cluster or battery disconnect
- 5 Fuel tank venting or EVAP system fault causing the tank to draw down or pressurize abnormally
- 6 Aftermarket or incorrect fuel level sender installed during a prior fuel pump replacement
- 7 Engine control module software calibration issue requiring a known-good update on certain Volkswagen models



How to diagnose and fix it

- 1 Verify the actual fuel level in the tank by filling it and checking whether the code clears after a drive cycle
- 2 Read live fuel level data in the engine control module and instrument cluster to compare sender resistance against expected values
- 3 Inspect the fuel level sender connector and wiring harness for corrosion, chafing, or loose pins at the tank and behind the cluster
- 4 Perform a resistance sweep on the fuel level sender through its full travel to check for dead spots or non-linear output
- 5 Check instrument cluster adaptation and coding values against factory specifications, especially after cluster replacement
- 6 If the sender is faulty, replace the fuel level sender or fuel pump module assembly as a matched unit
- 7 Clear the code and complete a full drive cycle including a refuel event to confirm the fault does not return

Why P1250 is not always an empty tank

- Many technicians replace the fuel pump module when the real fault is a corroded connector pin at the tank flange, so always load-test the sender circuit before condemning parts.
- A fuel level sender that reads correctly on the gauge can still set P1250 because the engine control module uses a separate calculated fuel volume model that compares consumption against sender input.
- On some Volkswagen models, disconnecting the battery or replacing the instrument cluster resets fuel level adaptation values and can trigger P1250 until a refuel and drive cycle relearns the tank characteristics.
- Running the tank below a quarter consistently accelerates sender wiper wear and can cause intermittent P1250 without any hard fault in the sender, so advise customers to refuel earlier.
- A stuck-open EVAP purge valve can pull vapor from the tank and alter fuel level calculations, occasionally setting P1250 alongside EVAP codes that point to the real root cause.

Can I keep driving with P1250?

It is safe to continue driving to the nearest fuel station, but avoid hard cornering, heavy acceleration, or extended idling with a very low tank because fuel pickup can uncover and cause a lean stumble. Refuel promptly and monitor whether the code returns after a full tank and drive cycle.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter for resistance and voltage checks
- Fuel sender wrench or appropriate spanner for the lock ring
- Factory service information or wiring diagram for the specific Volkswagen model
- Fuel-safe container and hand tools for tank access



Reading P1250

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

Often seen with

P0455 EVAP System Leak Detected (Large) · **P0460** Fuel Level Sensor Circuit Malfunction · **P0461** Fuel Level Sensor Circuit Range/Performance · **P0462** Fuel Level Sensor Circuit Low Input · **P0463** Fuel Level Sensor Circuit High Input

See it working

Watch the animated explainer [How a CVT Works: Belt and Pulley Transmission](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/volkswagen-p1250/>

