

VOLKSWAGEN · POWERTRAIN

P1561

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1561 · Volkswagen

Quantity Adjuster Deviation

P1561 on Volkswagen diesel engines means the engine control module (ECM) has detected that the fuel quantity adjuster is not delivering the commanded fuel amount within the expected tolerance. The ECM compares the actual injector pump metering valve position or fuel delivery against its mapped target and flags a deviation when the two disagree beyond a calibrated threshold.

SYSTEM

Powertrain

CODE TYPE

Volkswagen
specific

SEVERITY

Medium

FIX DIFFICULTY

Professional

AREA

Vehicle speed,
idle control and
auxiliary inputs

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Rough idle or intermittent idle surging as the pump struggles to meter fuel precisely
- Reduced engine power or limp mode under acceleration
- Hard starting or extended cranking, especially when cold
- Increased fuel consumption or black smoke from the exhaust
- Stalling at low speed or when coming to a stop

Common causes, most likely first

- 1 Contaminated or worn fuel quantity adjuster solenoid valve on the injection pump
- 2 Internal wear in the distributor-type injection pump causing inconsistent fuel delivery
- 3 Restricted fuel flow from a clogged fuel filter or failing lift pump
- 4 Air ingress into the fuel system through deteriorated lines or seals
- 5 Faulty or dirty mass airflow (MAF) sensor skewing the ECM's fuel calculation
- 6 Wiring harness damage or corroded connector pins at the quantity adjuster
- 7 ECM software calibration issue or corrupted adaptation values



How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, then check live fuel quantity and adjuster deviation values on a road test
- 2 Replace the fuel filter and inspect fuel lines for restrictions or air leaks before condemning the pump
- 3 Check the quantity adjuster connector and harness for corrosion, chafing, and correct resistance
- 4 Verify lift pump pressure and volume against Volkswagen specifications
- 5 Clean or replace the mass airflow sensor if readings are out of range
- 6 Perform the quantity adjuster adaptation or basic setting reset with a capable scan tool
- 7 Remove and bench-test or replace the injection pump if electrical and fuel supply checks pass but deviation persists

What the quantity adjuster deviation really tells you

- A dirty mass airflow sensor can set P1561 because the ECM calculates expected fuel quantity from airflow, so a skewed air reading makes a healthy pump look faulty.
Air bubbles in the fuel line from a cracked filter housing or worn return line often mimic a failing quantity adjuster and are missed during pump replacement.
- The quantity adjuster adaptation values can drift over time, and a basic setting reset with a factory-level scan tool frequently clears the code without any parts.
- P1561 does not always mean the injection pump is mechanically worn; electrical connector faults at the adjuster are a common and inexpensive cause.
Low fuel pressure from a tired lift pump in the tank can produce the same deviation because the adjuster cannot meet commanded quantity under load.

Can I keep driving with P1561?

You can usually drive the vehicle to a workshop, but avoid heavy acceleration and long trips because the engine may enter limp mode or stall at low speed. If the car is hard to start or stalls repeatedly, stop driving and arrange diagnosis.

Tools that help

- Volkswagen-compatible scan tool with live data and basic settings capability
- Fuel pressure test gauge
- Digital multimeter
- Hand tools for fuel filter and line access
- Injection pump timing tools if pump removal is required



Reading P1561

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (Volkswagen): its meaning depends on the make.
- 5** Vehicle speed, idle control and auxiliary inputs.
- 61** The exact fault within that area.

Often seen with

P1560 Maximum Engine Speed Exceeded · **P1562** Quantity Adjuster Upper Limit Attained · **P1560** Back-Up Voltage Circuit Malfunction · **P1562** Powertrain Control Module +B Voltage Low · **P1560** Cruise Control System Transaxle Not In Drive · **P1562** Cruise Vacuum Solenoid · **P1560** Cruise Control System Transaxle Not In Drive · **P1562** Cruise Vacuum Solenoid · **P1560** B Camshaft Position Actuator Control Open Circuit Bank 1 · **P0087** Fuel Rail/System Pressure - Too Low · **P0251** Injection Pump Fuel Metering Control 'A' (Cam/Rotor/Injector) · **P0401** EGR Flow Insufficient Detected

See it working

Watch the animated explainer [Engine Cooling System Trainer: How Engines Stay Cool](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/volkswagen-p1561/>

