



P1557 · Volkswagen

Charge Pressure Positive Deviation

P1557 on Volkswagen vehicles means the engine control module has detected that actual charge pressure from the turbocharger is higher than the requested target pressure for a sustained period. The computer compares the manifold pressure sensor reading against its commanded boost map and flags a positive deviation when the measured value overshoots the setpoint beyond an acceptable margin.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Volkswagen specific	Medium	Professional	Vehicle speed, idle control and auxiliary inputs

Symptoms you may notice

- Often no symptoms besides the warning light, especially during gentle driving
- Intermittent overboost that triggers a sudden loss of power and limp mode under hard acceleration
- A noticeable surge or spike in acceleration followed by the engine cutting back sharply
- Reduced fuel economy or black smoke from the exhaust under load on diesel engines
- Audible turbo flutter or wastegate rattle during throttle lift-off
- Engine fault warning or glow plug light flashing on the dashboard

Common causes, most likely first

- 1 Sticking or seized turbocharger wastegate or variable turbine geometry vanes, preventing boost from being bled off
- 2 Faulty charge pressure sensor or manifold absolute pressure sensor reporting inflated readings
- 3 Leaking or disconnected wastegate actuator vacuum line or boost control solenoid failure
- 4 Restricted or misrouted vacuum lines to the turbo actuator on older engines
- 5 Carbon buildup on variable geometry turbo mechanism causing the vanes to stick in a high-boost position
- 6 Software calibration issue or incorrect ECU coding after a turbo replacement
- 7 Wiring harness damage or corrosion at the charge pressure sensor connector



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data to confirm when the overboost occurs and at what engine speed and load
- 2 Compare charge pressure sensor live data against a known-good mechanical boost gauge to rule out sensor error
- 3 Inspect all vacuum and charge air hoses for splits, loose clamps, or disconnected lines
- 4 Test the wastegate actuator or VGT actuator for free movement and correct vacuum or electronic response
- 5 Check the boost control solenoid for correct operation and verify it holds vacuum when commanded
- 6 Perform a turbocharger VGT calibration or adaptation reset with a suitable scan tool after repairs
- 7 Replace the faulty wastegate actuator, boost solenoid, or turbocharger assembly as indicated by the tests

Overboost traps before you replace the turbo

- A sticking wastegate or carboned VGT mechanism is the most common root cause, but many technicians replace the turbo before checking that the actuator moves freely through its full range.
A charge pressure sensor that reads high will command the ECU to reduce boost, yet the code still sets as a positive deviation because the reported value exceeds target even when actual boost is correct.
- On TDI engines, a clogged intake manifold or EGR restriction can alter airflow enough to skew the pressure ratio and trigger P1557 without any turbo fault at all.
- After any turbo or actuator replacement, the VGT adaptation must be reset or the ECU will keep the old learned limits and the code will return immediately.
- Intermittent wiring faults at the charge pressure sensor connector often appear only when the engine bay is hot, so wiggle-test the harness while watching live data.

Can I keep driving with P1557?

You can drive gently to a workshop, but avoid hard acceleration and sustained high-load driving because repeated overboost can damage the turbocharger and trigger limp mode at an inconvenient moment. If the engine enters limp mode frequently, stop and have the fault diagnosed before continuing.

Tools that help

- OBD-II scan tool with live data and VW-specific capabilities
- Mechanical boost gauge for verifying actual charge pressure
- Hand vacuum pump with gauge for testing wastegate and VGT actuators
- Digital multimeter for checking sensor wiring and solenoid resistance
- Basic socket and wrench set for inspecting vacuum lines and actuator linkage



Reading P1557

- 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.
- 57** The exact fault within that area.

Often seen with

P0101 Mass/Volume Air Flow Circuit Range/Performance · **P0234** Engine Overboost Condition · **P0299** Turbo/Supercharger Underboost · **P2563** Turbocharger Boost Control Position Sensor Circuit Range/Per · **P2564** Turbocharger Boost Control Position Sensor Circuit Low

See it working

Watch the animated explainer [How a Car Clutch Works: Diaphragm Clutch Cutaway](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/volkswagen-p1557/>

