

FORD · POWERTRAIN

P1247

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1247 · Ford

Turbo Boost Pressure Low

P1247 on Ford vehicles indicates that the powertrain control module (PCM) has detected a turbo boost pressure that is lower than the commanded or expected level during operation. The PCM monitors the turbocharger system and sets this code when actual boost pressure, as reported by the manifold absolute pressure (MAP) or boost sensor, falls below the desired value for a calibrated period.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Ford specific	Medium	Intermediate	Fuel and air metering (injector circuits)

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Reduced engine power or sluggish acceleration, especially during heavy throttle
- Turbocharger may sound louder or produce a whistling noise due to a boost leak
- Poor fuel economy or increased exhaust smoke
- Hesitation or stumble when accelerating from a stop or at low speeds
- In some cases, the engine may enter limp mode to protect the turbocharger

Common causes, most likely first

- 1 Boost pressure sensor (MAP sensor) faulty or contaminated
- 2 Leaking or disconnected charge air cooler (intercooler) hoses or pipes
- 3 Faulty turbocharger wastegate actuator or stuck wastegate
- 4 Turbocharger compressor wheel damage or excessive shaft play
- 5 Exhaust leak before the turbocharger (e.g., cracked manifold or failed gasket)
- 6 Faulty boost control solenoid (also known as the turbo control solenoid)
- 7 Restricted air intake or clogged air filter



How to diagnose and fix it

- 1 Perform a visual inspection of all charge air cooler hoses, clamps, and pipes for leaks, cracks, or loose connections; repair or replace as needed.
- 2 Check the air filter and intake system for restrictions or blockages; replace the filter if dirty.
- 3 Use a scan tool to monitor live boost pressure data and compare it to the commanded boost; verify sensor operation and wiring.
- 4 Test the boost control solenoid for proper operation and resistance; replace if faulty.
- 5 Inspect the turbocharger wastegate actuator for proper movement and vacuum/electrical operation; replace if defective.
- 6 Perform a boost leak test using a smoke machine or pressure tester to locate hidden leaks in the intake system.
- 7 If all external components check out, inspect the turbocharger for internal damage (compressor wheel, turbine wheel, shaft play) and replace if necessary.

Common Misdiagnosis Traps for P1247

- A dirty or failing mass air flow (MAF) sensor can skew boost calculations and set P1247 even when the turbocharger itself is healthy.
- Exhaust restrictions, such as a clogged diesel particulate filter (DPF) on Ford diesel engines, can reduce turbo boost and trigger this code without any boost leak.
- On some Ford EcoBoost engines, a sticking wastegate linkage due to carbon buildup is a frequent cause that is often overlooked in favor of sensor replacement.
- The PCM may set P1247 as a result of a faulty boost pressure sensor that reads low, even though actual boost is within specification; always verify sensor accuracy before replacing turbo components.
- Intermittent electrical issues, such as chafed wiring to the boost control solenoid, can cause sporadic low boost readings and set P1247 without a hard failure.

Can I keep driving with P1247?

You can drive the vehicle with P1247, but avoid heavy acceleration and towing until the fault is repaired, as prolonged low boost can lead to turbocharger damage or reduced engine performance. If the engine enters limp mode or you notice excessive smoke, seek service immediately.

Tools that help

- OBD-II scan tool with live data capability
- Boost pressure gauge or vacuum/pressure tester
- Smoke machine for boost leak detection
- Basic hand tools (screwdrivers, wrenches, socket set)
- Digital multimeter for electrical testing



Reading P1247

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

Often seen with

P1248 Injection Start Control Deviation · **P1248** Accelerator Position Sensors 1 & 2 Improper Correlation · **P1248** Turbo Boost Pressure Not Detected · **P1248** Accelerator Position Sensors 1 & 2 Improper Correlation · **P1248** Turbo Boost Pressure Not Detected · **P0234** Engine Overboost Condition · **P0235** Turbocharger Boost Sensor A Circuit Malfunction · **P0236** Turbocharger Boost Sensor A Circuit Range/Performance · **P0299** Turbo/Supercharger Underboost

See it working

Watch the animated explainer [Turbocharger Trainer: Boost, Wastegate and Intercooler](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/ford-p1247/>

