

FORD · POWERTRAIN

P1302

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1302 · Ford

Boost Calibration Low

P1302 on Ford vehicles indicates that the powertrain control module has detected a boost calibration signal that is lower than expected for the current operating conditions. The computer compares the actual boost pressure from the manifold absolute pressure sensor against the desired boost pressure calculated from engine speed, throttle position, and other inputs, and sets this code when the actual value falls below the calibrated threshold for a specified time.

SYSTEM

Powertrain

CODE TYPE

Ford specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Ignition system and misfire

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Reduced engine power or a limp mode condition, especially during acceleration
- Poor acceleration and sluggish throttle response
- Audible hissing or whistling from the engine bay under boost
- Decreased fuel economy due to the engine running rich or retarding timing
- In rare cases, the engine may stumble or hesitate under load

Common causes, most likely first

- 1 Leaking or disconnected charge air cooler pipes, intercooler, or intake hoses
- 2 Faulty or contaminated manifold absolute pressure sensor or boost pressure sensor
- 3 Sticking or failed turbocharger wastegate actuator or boost control solenoid
- 4 Restricted exhaust system, such as a clogged diesel particulate filter or catalytic converter
- 5 Damaged turbocharger compressor wheel or excessive shaft play
- 6 Wiring issues or poor connections at the MAP sensor or boost control solenoid
- 7 Engine vacuum leaks or unmetered air entering the intake system



How to diagnose and fix it

- 1 Perform a visual inspection of all intake and charge air cooler hoses for cracks, loose clamps, or disconnections
- 2 Use a scan tool to check live data for desired and actual boost pressure, and compare readings during a test drive
- 3 Test the MAP sensor and boost control solenoid for proper resistance and operation according to Ford service information
- 4 Check for exhaust restrictions by measuring backpressure or inspecting the DPF and catalytic converter
- 5 Inspect the turbocharger wastegate actuator for free movement and correct adjustment
- 6 Perform a smoke test on the intake system to locate vacuum or boost leaks
- 7 Repair or replace any faulty components and clear the code, then verify the repair with a road test

Common Misdiagnosis Traps for P1302

- A loose or cracked charge air cooler pipe is the most frequent cause of this code on Ford EcoBoost engines, yet many technicians replace the turbocharger first without checking the pipes.
- The code can be set by a dirty or failing MAP sensor that reports lower than actual pressure, so always compare sensor readings with a known good gauge before condemning the turbo.
- On Ford Power Stroke diesel engines, a restricted diesel particulate filter can cause low boost by increasing exhaust backpressure, mimicking a turbo failure.
- Intermittent wiring faults at the boost control solenoid connector can set P1302 without any mechanical issue, so wiggle-test the harness while monitoring live data.
- After any repair, the adaptive learning values for the turbocharger may need to be reset with a scan tool to prevent the code from returning prematurely.

Can I keep driving with P1302?

You can usually drive the vehicle with this code, but avoid heavy acceleration and towing until the fault is repaired. Prolonged driving with low boost can lead to poor fuel economy and may damage the turbocharger or exhaust system over time.

Tools that help

- OBD-II scan tool with live data capability
- Boost pressure gauge or mechanical vacuum/pressure tester
- Smoke machine for intake leak detection
- Digital multimeter for electrical testing
- Socket set and screwdrivers for hose and component removal



Reading P1302

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (Ford): its meaning depends on the make.
- 3** Ignition system and misfire.
- 02** The exact fault within that area.

Often seen with

P0106 MAP/Barometric Pressure Circuit Range/Performance · **P0107** MAP/Barometric Pressure Circuit Low Input · **P0234** Engine Overboost Condition · **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-p1302/>

