

FORD · POWERTRAIN

P1300

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1300 · Ford

Boost Calibration Fault

P1300 on Ford vehicles indicates the powertrain control module (PCM) has detected a fault in the boost calibration circuit, typically meaning the measured boost pressure does not match the expected value under current operating conditions. The PCM compares signals from the manifold absolute pressure (MAP) sensor and turbocharger boost control system to set this code when the calibration is out of range.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Ford specific	Medium	Intermediate	Ignition system and misfire

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Reduced engine power or limp mode, especially under acceleration
- Poor fuel economy and sluggish throttle response
- Rough idle or hesitation during acceleration
- Audible turbocharger whistle or whooshing noises
- Black smoke from the exhaust under load (diesel engines)

Common causes, most likely first

- 1 Faulty or contaminated MAP sensor
- 2 Boost pressure sensor (BPS) failure or wiring issue
- 3 Turbocharger wastegate or variable vane actuator malfunction
- 4 Leaking or disconnected boost hoses or intercooler piping
- 5 Exhaust gas recirculation (EGR) valve stuck open or carbon buildup
- 6 PCM software calibration error or faulty PCM
- 7 Restricted air intake or clogged air filter



How to diagnose and fix it

- 1 Inspect all boost hoses, intercooler pipes, and clamps for leaks or disconnections
- 2 Check the MAP sensor and boost pressure sensor for contamination or damage, and clean or replace as needed
- 3 Test the turbocharger wastegate actuator or variable vane mechanism for free movement and correct operation
- 4 Verify EGR valve operation and clean or replace if stuck
- 5 Perform a visual inspection of the air intake system and replace the air filter if dirty
- 6 Use a scan tool to check for PCM software updates and reflash if available
- 7 If all else fails, diagnose the PCM and its wiring for faults

Boost calibration faults often misdiagnosed

- A dirty or failing MAP sensor is frequently the root cause, but technicians often replace the turbocharger first due to misleading boost codes.
Boost leaks can be intermittent and only appear under load, so a visual inspection may miss a small crack in a hose.
- On Ford EcoBoost engines, a sticking wastegate actuator can set P1300 without any drivability symptoms.
- The code can be triggered by a faulty EGR valve that leaks exhaust gas into the intake, affecting boost pressure readings.
- P1300 is sometimes stored alongside P0299 (turbo underboost) or P0234 (turbo overboost), which can help pinpoint the issue.

Can I keep driving with P1300?

It is generally safe to drive with P1300 if the vehicle is not in limp mode, but avoid heavy acceleration and towing until diagnosed. Prolonged driving with a boost fault can lead to turbocharger damage or reduced fuel economy.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Hand tools (screwdrivers, wrenches, socket set)
- Smoke machine for boost leak testing
- Vacuum pump and gauge



Reading P1300

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

Often seen with

P0106 MAP/Barometric Pressure Circuit Range/Performance · **P0234** Engine Overboost Condition · **P0236** Turbocharger Boost Sensor A Circuit Range/Performance · **P0299** Turbo/Supercharger Underboost · **P0401** EGR Flow Insufficient Detected

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-p1300/>

