

GENERIC · POWERTRAIN

P00F7

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P00F7

Barometric Pressure - Turbocharger/Supercharger Inlet Pressure Correlation Bank 2

P00F7 indicates that the powertrain control module (PCM) has detected a mismatch between the barometric pressure (BARO) reading and the turbocharger or supercharger inlet pressure sensor on bank 2. The computer expects these two pressure signals to closely agree when the engine is running, and it sets this code when the correlation falls outside the calibrated range.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering and auxiliary emission controls

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms.
- Reduced engine performance or a lack of power, especially under acceleration.
- Rough idle or stumbling, particularly after a cold start.
- Poor fuel economy or increased fuel consumption.
- In rare cases, the engine may enter limp mode to protect the turbocharger or supercharger.

Common causes, most likely first

- 1 A faulty barometric pressure sensor, which is often integrated into the mass airflow (MAF) sensor or the engine control module (ECM).
- 2 A defective turbocharger or supercharger inlet pressure sensor on bank 2.
- 3 Damaged, disconnected, or corroded wiring in the circuit between the sensor and the PCM.
- 4 A restricted or leaking intake air path before the turbocharger or supercharger inlet, such as a collapsed hose or a blocked air filter.
- 5 A malfunctioning turbocharger or supercharger wastegate or bypass valve that affects inlet pressure.
- 6 A software issue or internal fault in the PCM that misinterprets the sensor signals.



How to diagnose and fix it

- 1 Use a scan tool to verify the code and check for any related trouble codes in the PCM.
- 2 Compare the barometric pressure reading from the scan tool with a known good source, such as a weather report or a separate pressure gauge, to confirm the BARO sensor is accurate.
- 3 Inspect the turbocharger or supercharger inlet pressure sensor and its wiring for physical damage, corrosion, or loose connections.
- 4 Check the intake air path for restrictions or leaks, including the air filter, hoses, and intercooler piping.
- 5 Perform a resistance and voltage drop test on the sensor circuits to rule out wiring faults.
- 6 If the sensors and wiring are good, test the turbocharger or supercharger operation, including the wastegate and bypass valve, according to the manufacturer's procedure.
- 7 After repairs, clear the codes and perform a road test to verify the correlation between BARO and inlet pressure readings.

Don't overlook the barometric pressure sensor

- The barometric pressure sensor is often integrated into the mass airflow sensor, so a failing MAF sensor can set this code even if the turbo inlet pressure sensor is working perfectly.
- A dirty or restricted air filter can cause a pressure drop that mimics a faulty sensor, so always check the intake system before replacing parts.
- This code is specific to bank 2, which means the engine has two turbochargers or superchargers; on a single-turbo engine, a similar code for bank 1 would apply.
- In some vehicles, the barometric pressure is inferred from other sensors at key-on, and a weak battery or poor ground can cause erratic BARO readings that trigger this code.
- A misdiagnosed P00F7 is often caused by ignoring stored freeze-frame data, which can show whether the fault occurred under load or at idle and point to the real culprit.

Can I keep driving with P00F7?

You can generally continue driving with this code, but avoid heavy acceleration and towing until it is diagnosed, as the engine may enter limp mode and performance could be reduced. Have the vehicle inspected soon to prevent potential damage to the turbocharger or supercharger.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Hand vacuum/pressure pump
- Basic hand tools (screwdrivers, socket set)
- Factory service information or wiring diagrams



Reading P00F7

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 0** Fuel and air metering and auxiliary emission controls.
- F7** The exact fault within that area.

Often seen with

P00F5 Humidity Sensor Circuit High · **P00F6** Humidity Sensor Circuit Intermittent/Erratic · **P0106** MAP/Barometric Pressure Circuit Range/Performance · **P0235** Turbocharger Boost Sensor A Circuit Malfunction · **P0236** Turbocharger Boost Sensor A Circuit Range/Performance

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/p00f7/>

