

GENERIC · POWERTRAIN

P01FB

OBD-II TROUBLE CODE

P01FB

Turbocharger Outlet Pressure Sensor B Range/Performance

P01FB indicates that the powertrain control module has detected an out-of-range or performance fault in the signal from the turbocharger outlet pressure sensor B, which is typically a second sensor used on engines with twin turbochargers or a secondary pressure tap. The computer compares this sensor's voltage against expected values derived from other sensors and operating conditions, and it sets the code when the reading falls outside a calibrated range or fails a rationality check.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Reduced engine power or a limp-home mode triggered by the powertrain control module
- Poor throttle response and sluggish acceleration, especially when the turbochargers should be building boost
- Rough running or hesitation under load if the faulty signal causes incorrect fuel or boost control
- A noticeable drop in fuel economy due to the engine operating with inaccurate pressure data
- In some cases, a stored code but no drivability complaint at all, particularly if the fault is intermittent

Common causes, most likely first

- 1 A failed or contaminated turbocharger outlet pressure sensor B
- 2 Damaged, corroded, or loose wiring and connectors in the sensor B circuit
- 3 A clogged or cracked pressure sensing tube or port leading to the sensor
- 4 An intake or charge-air leak between the turbocharger outlet and the sensor tap
- 5 A faulty reference voltage or ground circuit shared with other sensors
- 6 A software calibration issue in the powertrain control module that misinterprets a valid signal
- 7 Mechanical issues such as a sticking turbocharger wastegate or variable-geometry mechanism affecting actual outlet pressure



How to diagnose and fix it

- 1 Connect a scan tool and record the freeze-frame data for P01FB, then compare sensor B's live reading with sensor A and with the manifold absolute pressure sensor at key-on and during a road test.
- 2 Visually inspect the sensor B connector, pins, and the full length of its wiring harness for chafing, corrosion, or loose terminals, and repair any damage found.
- 3 Check the pressure sensing tube or port for blockage, cracks, or loose connections, and clean or replace it as needed.
- 4 Perform a smoke test or use a boost leak detector to check the charge-air system for leaks between the turbocharger outlet and the sensor location.
- 5 Measure reference voltage and ground at the sensor B connector with a multimeter, and compare the signal voltage with a known-good sensor or a pressure gauge.
- 6 If the circuit and mechanical checks pass, substitute a known-good sensor B and clear the code to see whether the fault returns.
- 7 After any repair, clear the diagnostic trouble codes and complete a drive cycle that includes steady cruise and several acceleration events to verify the repair.

Why sensor B faults are often misdiagnosed

- Many technicians replace sensor B immediately, but a restricted or leaking pressure tube is just as common and costs far less to fix.
- A charge-air leak downstream of the turbocharger can cause the sensor to read lower than expected and set P01FB even when the sensor itself is perfectly healthy.
- On twin-turbo engines, sensor B may monitor only one turbocharger, so a mechanical fault on that turbocharger can mimic an electrical sensor fault.
- Intermittent P01FB codes often trace to a connector that wiggles under engine torque, so a static multimeter test at idle can miss the problem entirely.
- The powertrain control module may set this code based on a rationality comparison with sensor A, meaning a fault in sensor A can trigger a P01FB for sensor B.

Can I keep driving with P01FB?

You can usually drive the vehicle to a repair shop, but avoid heavy acceleration and towing because the powertrain control module may be limiting boost and the engine could enter limp mode. If the check engine light begins flashing or you notice severe power loss, stop driving and have the vehicle towed.



Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter
- Hand vacuum/pressure pump with gauge
- Smoke machine or boost leak tester
- Basic hand tools and terminal pick set

Reading P01FB

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

Often seen with

P01FA Turbocharger Outlet Pressure Sensor B Circuit · **P01FC** Turbocharger Outlet Pressure Sensor B Circuit Low · **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/p01fb/>

