

GENERIC · POWERTRAIN

P01FD

OBD-II TROUBLE CODE

P01FD

Turbocharger Outlet Pressure Sensor B Circuit High

P01FD indicates that the powertrain control module has detected an abnormally high voltage signal from the turbocharger outlet pressure sensor B circuit, which typically measures the pressure of the compressed air charge exiting the turbocharger. The circuit is considered high when the signal voltage exceeds the expected range for the current operating conditions, often near the 5-volt reference limit.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Fuel and air metering

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms.
- Reduced engine power or limp mode due to the PCM limiting boost.
- Poor fuel economy or sluggish acceleration from incorrect boost control.
- Black smoke from the exhaust if the engine runs rich from faulty pressure data.
- In rare cases, the engine may enter a default strategy that causes rough running or stalling.

Common causes, most likely first

- 1 A short to voltage or short to reference in the sensor signal wire.
- 2 A faulty turbocharger outlet pressure sensor B that internally shorts and outputs a high voltage.
- 3 Corroded, damaged, or loose electrical connectors at the sensor or PCM.
- 4 A defective powertrain control module (PCM) that misreads the sensor signal.
- 5 Water intrusion or physical damage to the sensor or its wiring harness.
- 6 An open ground circuit for the sensor, causing the signal to float high.
- 7 Aftermarket modifications or incorrect sensor replacement that do not match the OEM specification.



How to diagnose and fix it

- 1 Use a scan tool to verify the code and check for any related codes, then record freeze-frame data.
- 2 Visually inspect the sensor, connector, and wiring for damage, corrosion, or loose pins.
- 3 Measure the sensor reference voltage and ground circuit integrity with a digital multimeter.
- 4 Backprobe the signal wire to check for a short to voltage or an abnormally high signal with the key on.
- 5 Disconnect the sensor and observe the scan tool signal voltage to see if it drops to a normal default value.
- 6 If the wiring and connectors are good, replace the turbocharger outlet pressure sensor B with a quality part.
- 7 Clear the codes and perform a road test to confirm the repair, then verify the sensor signal matches actual boost pressure.

Don't overlook the ground circuit

- A missing or high-resistance ground at the sensor can cause the signal voltage to float high, mimicking a short to voltage, so always verify ground integrity before condemning the sensor.
- This code often sets intermittently due to a chafed wire that only shorts when the engine moves under load, so a wiggle test of the harness while monitoring live data is essential.
- Some technicians replace the sensor only to find the connector pins are pushed back or corroded, so a thorough pin drag test and terminal inspection are critical.
- The PCM may set P01FD as a companion code to other boost-related faults, so diagnosing the root cause requires looking at all stored codes and live pressure readings.
- On vehicles with a dual-stage turbocharger, sensor B may monitor a different pressure point than sensor A, and swapping the two sensors can cause this code if they are not identical.

Can I keep driving with P01FD?

You can usually drive the vehicle with this code, but the engine may enter limp mode or exhibit reduced performance, so avoid heavy acceleration and towing until repaired. Prolonged driving with a faulty pressure signal can lead to incorrect fuel mixture and potential damage to the turbocharger or catalytic converter.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Backprobe pins or breakout box
- Wiring diagram for the specific vehicle
- Basic hand tools for connector and sensor access



Reading P01FD

- 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.
- FD** The exact fault within that area.

Often seen with

P01FA Turbocharger Outlet Pressure Sensor B Circuit · **P01FB** Turbocharger Outlet Pressure Sensor B Range/Performance · **P01FC** Turbocharger Outlet Pressure Sensor B Circuit Low · **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/p01fd/>

