

GENERIC · POWERTRAIN

P00FC

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P00FC

Turbocharger Outlet Pressure Sensor A Intermittent/Erratic

P00FC means the engine computer has seen the turbocharger outlet pressure sensor A signal jump around erratically or drop out intermittently, rather than reading a smooth, believable pressure. The computer compares that signal against other sensor inputs and its own expectations, and it flags the code when the readings are too inconsistent to trust for fuel and boost control.

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

Symptoms you may notice

- The check engine light or service engine soon light is illuminated, often with no other noticeable change in how the vehicle drives.
- Intermittent loss of boost or a sudden flat spot during acceleration, especially under load or when climbing a hill.
- Rough running, surging, or hesitation that comes and goes without a clear pattern.
- Reduced engine power or a limp-home mode if the computer substitutes a default boost value.
- Poor fuel economy or black smoke from the tailpipe if the erratic reading makes the computer over-fuel.
- A boost gauge, if fitted, that twitches or reads inconsistently compared with engine speed and throttle.

Common causes, most likely first

- A failing or contaminated turbocharger outlet pressure sensor that produces an unstable signal.
- Damaged, chafed, or corroded wiring and connector pins between the sensor and the engine computer.
- A loose or leaking boost hose, intercooler connection, or sensor mounting that lets pressure escape and confuses the reading.
- Moisture or oil contamination at the sensor element, common on high-mileage turbocharged engines.
- A restricted or blocked pressure port or reference tube feeding the sensor.
- An intermittent ground or reference voltage fault shared with other engine sensors.
- A rare internal fault in the engine control module affecting the sensor input circuit.



How to diagnose and fix it

- 1 Read all stored and pending codes with a scan tool and record freeze-frame data to see the conditions when P00FC set.
- 2 Inspect the sensor, its connector, and the full wiring run for chafing, corrosion, loose pins, or oil ingress.
- 3 Check the boost hoses, intercooler couplings, and sensor mounting for leaks or loose fittings using a visual inspection and a boost leak test.
- 4 Back-probe the sensor signal and reference circuits with a multimeter or oscilloscope to look for dropouts, spikes, or an unstable voltage.
- 5 Compare the turbocharger outlet pressure sensor reading live against manifold absolute pressure and expected boost values to confirm the signal is erratic.
- 6 Clean or replace the pressure port and reference tube if contamination or blockage is found.
- 7 Replace the turbocharger outlet pressure sensor only after wiring and boost leaks are ruled out, then clear codes and verify the reading is stable during a road test.

What an erratic boost sensor really means

- A boost leak at a loose intercooler coupling can mimic a failed sensor because the pressure the sensor sees drops and spikes unpredictably under load.
- Oil mist from the turbo breather system often coats the sensor element and causes an intermittent signal that only appears after sustained boost.
- Technicians who replace the sensor without checking the connector pins frequently see the code return because a spread terminal or corroded wire was the real fault.
- P00FC can be stored alongside misfire or fuel trim codes, and fixing the sensor alone may not clear those until the underlying boost leak or wiring issue is repaired.
- A failing sensor can read plausibly at idle and only become erratic under boost, so a stationary scan tool check is not enough to condemn it.

Can I keep driving with P00FC?

You can usually drive the vehicle to a workshop, but avoid heavy acceleration and sustained boost until the fault is diagnosed, because an erratic boost signal can cause over-fuelling, poor performance, or a sudden loss of power. If the engine enters limp mode or runs very roughly, stop and arrange a diagnostic check rather than continuing.

Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter or automotive oscilloscope
- Boost leak tester or smoke machine
- Basic hand tools for hose clamps and sensor removal
- Contact cleaner and dielectric grease for connector repair



Reading P00FC

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

Often seen with

P00FD Battery B State of Charge Performance · **P0101** Mass/Volume Air Flow Circuit Range/Performance · **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/p00fc/>

