

GENERIC · POWERTRAIN

P025F

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P025F

Turbocharger/Supercharger Boost Sensor B Intermittent/Erratic

P025F indicates that the powertrain control module (PCM) has detected an intermittent or erratic signal from the boost sensor circuit designated as 'B'. This sensor monitors turbocharger or supercharger boost pressure, and the PCM sets the code when the signal voltage fluctuates unpredictably rather than showing a steady, plausible value.

SYSTEM Powertrain	CODE TYPE Generic (all makes)	SEVERITY Medium	FIX DIFFICULTY Intermediate	AREA Fuel and air metering (injector circuits)
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Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Intermittent loss of power or hesitation during acceleration
- Rough running or surging under load
- Reduced fuel economy due to incorrect boost calculations
- In rare cases, the engine may enter limp mode to protect the turbocharger

Common causes, most likely first

- 1 Loose, corroded, or damaged electrical connector at the boost sensor B
- 2 Chafed or broken wires in the sensor circuit (signal, ground, or reference voltage)
- 3 Failing boost sensor B itself, causing erratic output
- 4 Boost pressure leaks or restrictions that cause rapid pressure fluctuations
- 5 Poor ground connection for the sensor or PCM
- 6 PCM software issue or internal fault (less common)



How to diagnose and fix it

- 1 Inspect the boost sensor B connector and wiring for damage, corrosion, or looseness; clean and secure as needed
- 2 Check for boost leaks or restrictions in the intake system that could cause erratic pressure readings
- 3 Measure the sensor reference voltage and ground at the connector with a multimeter; compare to manufacturer specifications
- 4 Backprobe the signal wire and monitor voltage with a scan tool while revving the engine to detect erratic behavior
- 5 Test the boost sensor B with a hand vacuum/pressure pump and compare its output to a known-good sensor or scan tool data
- 6 Replace boost sensor B if it fails testing or if wiring and connections are confirmed good
- 7 Clear the code and perform a road test to verify the repair and ensure the code does not return

Intermittent Boost Sensor B Faults Uncovered

- A common oversight is assuming the sensor itself is faulty when the real problem is a loose connector or chafed wire that only acts up under vibration or temperature changes.
- Boost sensor B is often the downstream or secondary sensor in a dual-sensor system, so its erratic signal may be caused by a problem in the primary sensor or the turbocharger control system.
- The code can be set by a momentary glitch that does not affect drivability, leading some to replace parts unnecessarily; always check freeze-frame data to see the conditions when the fault occurred.
- Erratic signals can also result from oil contamination or carbon buildup on the sensor element, especially on engines with positive crankcase ventilation (PCV) issues.
- A failing ground connection at the sensor or PCM can cause the signal to fluctuate, and this is often missed when only the signal wire is tested.

Can I keep driving with P025F?

You can generally continue driving if the vehicle runs normally, but avoid aggressive acceleration or heavy loads until the fault is repaired. If the engine enters limp mode or performance degrades noticeably, seek service promptly to prevent potential turbocharger damage.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Hand vacuum/pressure pump
- Wire probe set or backprobe pins
- Service information for boost sensor specifications



Reading P025F

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 2** Fuel and air metering (injector circuits).
- 5F** The exact fault within that area.

Often seen with

P0235 Turbocharger Boost Sensor A Circuit Malfunction · **P0236** Turbocharger Boost Sensor A Circuit Range/Performance · **P0237** Turbocharger Boost Sensor A Circuit Low · **P0238** Turbocharger Boost Sensor A Circuit High · **P025E** Turbocharger/Supercharger Boost Sensor A Intermittent/Errati

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/p025f/>

