

GENERIC · POWERTRAIN

P012D

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P012D

Turbocharger/Supercharger Inlet Pressure Sensor A Circuit High

P012D indicates that the powertrain control module has detected an abnormally high voltage signal from the turbocharger or supercharger inlet pressure sensor A circuit. This sensor measures the pressure at the compressor inlet, and a high voltage typically corresponds to a reading above the sensor's normal operating range, which the computer interprets as a fault.

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 performance or power, as the computer may limit boost to protect the engine.
- Poor fuel economy or rough running if the faulty signal affects air/fuel ratio calculations.
- In some cases, the engine may enter limp mode, limiting speed and RPM.
- A stored code P012D may be accompanied by other related codes, such as P012C or P0235.

Common causes, most likely first

- 1 Faulty turbocharger/supercharger inlet pressure sensor A.
- 2 Damaged or corroded wiring in the sensor circuit, particularly the signal wire shorted to voltage.
- 3 Poor electrical connection at the sensor or PCM connector.
- 4 Failed or leaking intake system components causing abnormal pressure readings.
- 5 PCM software issue or internal PCM fault, though less common.
- 6 Contamination or blockage at the sensor port, leading to incorrect pressure sensing.



How to diagnose and fix it

- 1 Use an OBD-II scanner to verify the code and check for related codes; record freeze-frame data.
- 2 Inspect the sensor and its wiring for obvious damage, corrosion, or loose connections.
- 3 Measure the sensor reference voltage and signal voltage with a multimeter, comparing to manufacturer specifications.
- 4 Check the sensor's ground circuit for continuity and proper resistance.
- 5 Test the sensor's output with a vacuum/pressure pump and gauge to verify it responds correctly to pressure changes.
- 6 If the sensor tests faulty, replace it and clear the code; if wiring is faulty, repair as needed.
- 7 After repairs, perform a road test and verify the code does not return, monitoring live data for the inlet pressure sensor.

Don't overlook the simple wiring checks

- A common misdiagnosis is replacing the sensor without checking the wiring, but a short to voltage on the signal wire can mimic a failed sensor.
 - The code can be set by a loose or cracked intake pipe between the air filter and turbocharger, causing pressure fluctuations that the sensor interprets as high voltage.
 - On some vehicles, a dirty or clogged sensor port can cause a high voltage reading due to restricted pressure, so cleaning the port may resolve the issue.
 - This code is often stored alongside P012C (low voltage) if the sensor signal is intermittent, so check for both.
- Always verify the sensor's part number and calibration, as aftermarket sensors may have different voltage characteristics and trigger false codes.

Can I keep driving with P012D?

It is generally safe to drive with this code if the vehicle is running normally, but avoid heavy acceleration or towing until the fault is repaired. If the engine enters limp mode or performance is significantly reduced, seek service promptly to prevent potential damage.

Tools that help

- OBD-II scanner with live data capability
- Digital multimeter
- Hand vacuum/pressure pump with gauge
- Basic hand tools (screwdrivers, socket set)
- Wiring diagram for the specific vehicle



Reading P012D

- 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.
- 2D** The exact fault within that area.

Often seen with

P012C Turbocharger/Supercharger Inlet Pressure Sensor A Circuit Lo · **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

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/p012d/>

