

GENERIC · POWERTRAIN

P012A

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P012A

Turbocharger/Supercharger Inlet Pressure Sensor A Circuit

P012A indicates that the powertrain control module (PCM) has detected an abnormal signal from the turbocharger or supercharger inlet pressure sensor on circuit A. This sensor measures the pressure of the air entering the turbocharger or supercharger, and the code is set when the PCM sees a voltage or rationality error that does not match expected values under current operating conditions.

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, especially during acceleration
- Poor fuel economy or increased fuel consumption
- Rough idle or hesitation when the engine is cold
- In rare cases, the engine may enter limp mode to protect the turbocharger or supercharger

Common causes, most likely first

- 1 Faulty turbocharger or supercharger inlet pressure sensor
- 2 Damaged or disconnected electrical connector at the sensor
- 3 Wiring harness issues such as open, short, or high resistance in the sensor circuit
- 4 Clogged or restricted inlet pressure sensor port due to debris or carbon buildup
- 5 Leaks or blockages in the intake air system before the turbocharger or supercharger
- 6 Corrosion or water intrusion in the sensor or connector
- 7 PCM software issue or internal fault (less common)



How to diagnose and fix it

- 1 Inspect the sensor and its connector for physical damage, corrosion, or loose pins; clean and secure as needed
- 2 Check the sensor's reference voltage and ground circuits with a multimeter to verify proper power and ground
- 3 Test the sensor's signal output with a scan tool to see if it correlates with actual inlet pressure (compare with barometric pressure at key-on, engine-off)
- 4 Inspect the intake air ducting and sensor port for restrictions, leaks, or carbon buildup; clean or repair as necessary
- 5 Replace the turbocharger or supercharger inlet pressure sensor if testing indicates it is faulty
- 6 Repair or replace damaged wiring or connectors in the sensor circuit
- 7 Clear the diagnostic trouble codes and perform a road test to verify the repair; reprogram the PCM if a software update is available

Before replacing the inlet pressure sensor

- A dirty or restricted sensor port can mimic a failed sensor, so always inspect and clean the port before condemning the part.
- The inlet pressure sensor often shares a 5-volt reference and ground with other sensors; a fault in those shared circuits can set P012A along with other codes.
- On some vehicles, the inlet pressure sensor is integrated into the turbocharger or supercharger assembly, making replacement more involved and costly.
- A faulty sensor may not cause any drivability symptoms, so the code can be intermittent and only appear under specific conditions.
- After repairs, the PCM may require a relearn or adaptation reset to properly calibrate the new sensor.

Can I keep driving with P012A?

The vehicle is generally safe to drive with P012A, but avoid aggressive acceleration or heavy loads until the fault is repaired, as the engine may enter limp mode or suffer reduced performance.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Hand tools for removing and installing sensors
- Vacuum/pressure gauge or smoke machine for checking intake leaks
- Contact cleaner and dielectric grease



Reading P012A

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

Often seen with

P012B Turbocharger/Supercharger Inlet Pressure Sensor A Circuit Ra · **P012C** Turbocharger/Supercharger Inlet Pressure Sensor A Circuit Lo · **P012D** Turbocharger/Supercharger Inlet Pressure Sensor A Circuit Hi · **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/p012a/>

