

GENERIC · POWERTRAIN

P012C

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P012C

Turbocharger/Supercharger Inlet Pressure Sensor A Circuit Low

P012C indicates that the powertrain control module (PCM) has detected an abnormally low voltage signal from the turbocharger or supercharger inlet pressure sensor A circuit. This sensor measures the pressure at the compressor inlet, and a low signal typically means the circuit is shorted to ground or the sensor's reference voltage is missing.

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

- Illumination of the check engine light, often with no other noticeable symptoms.
- Reduced engine performance or power, especially under boost.
- Poor fuel economy or rough running if the PCM defaults to a calculated value.
- In rare cases, a limp-home mode with limited RPM.
- No symptoms besides the warning light in many instances.

Common causes, most likely first

- 1 Faulty inlet pressure sensor A.
- 2 Short to ground in the sensor signal circuit.
- 3 Open or high-resistance ground circuit at the sensor.
- 4 Damaged or corroded sensor connector.
- 5 PCM internal fault (rare).
- 6 Wiring harness damage from heat, chafing, or rodent damage.
- 7 Missing 5-volt reference voltage to the sensor.

How to diagnose and fix it

- 1 Use a scan tool to verify the code and check live data for the inlet pressure sensor reading.
- 2 Visually inspect the sensor and its connector for damage, corrosion, or loose pins.
- 3 Measure the sensor's reference voltage (typically 5V) and ground circuit with a multimeter.
- 4 Check the signal circuit for a short to ground by measuring resistance to chassis ground.
- 5 If the circuit tests good, replace the inlet pressure sensor.
- 6 Clear the code and test-drive the vehicle to confirm the repair.
- 7 If the code persists, diagnose the PCM and its connections.



What a low inlet pressure signal really means

- A low signal often results from a short to ground in the wiring, not a failed sensor, so always check the harness before replacing parts.
- The inlet pressure sensor is sometimes confused with the manifold absolute pressure (MAP) sensor, but they serve different purposes and have different circuits.
- On some vehicles, a dirty or restricted air filter can cause abnormal pressure readings, though it rarely sets this specific code.
- A faulty sensor can cause the PCM to underestimate boost pressure, leading to overboost conditions and potential engine damage if ignored.
- The code can be set by a poor ground connection at the sensor, which is often overlooked during diagnosis.

Can I keep driving with P012C?

You can generally drive with this code, but avoid heavy acceleration or towing until it is repaired, as the engine may not manage boost correctly and could suffer damage over time.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the specific vehicle
- Basic hand tools for connector and sensor removal

Reading P012C

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.
2C	The exact fault within that area.

Often seen with

P0106 MAP/Barometric Pressure Circuit Range/Performance · **P012D** Turbocharger/Supercharger Inlet Pressure Sensor A Circuit Hi · **P012E** Turbocharger/Supercharger Inlet Pressure Sensor A Circuit In · **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/p012c/>

