

GENERIC · POWERTRAIN

P209C

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P209C

Reductant Injection Air Pressure Sensor B Circuit Low

P209C indicates that the powertrain control module has detected a low voltage signal from the reductant injection air pressure sensor B circuit, which monitors air pressure used to help inject diesel exhaust fluid into the exhaust stream. The computer compares the sensor signal to expected values and sets this code when the voltage remains below the calibrated threshold for a set time, indicating a short to ground, an open circuit, or a faulty sensor.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering and auxiliary emission controls

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms.
- Reduced engine power or limp mode in some vehicles as a protective strategy.
- Increased diesel exhaust fluid consumption if the system defaults to a rich injection strategy.
- Possible rough running or hesitation if the air injection system affects reductant mixing.
- A stored freeze frame showing low sensor voltage at the time of fault detection.

Common causes, most likely first

- 1 Faulty reductant injection air pressure sensor B.
- 2 Damaged or corroded wiring harness to the sensor, especially at connectors.
- 3 Short to ground in the sensor signal circuit.
- 4 Open circuit in the sensor reference or ground circuit.
- 5 Poor electrical connection at the powertrain control module.
- 6 Exhaust system leaks or blockages affecting air pressure readings.
- 7 Contaminated or clogged air pressure sensor port.



How to diagnose and fix it

- 1 Connect a scan tool and verify P209C is current, then check for related codes and freeze frame data.
- 2 Inspect the sensor and its wiring for obvious damage, corrosion, or loose connectors.
- 3 Measure sensor reference voltage and ground at the connector with a digital multimeter; compare to manufacturer specifications.
- 4 Perform a voltage drop test on the signal circuit to check for excessive resistance or a short to ground.
- 5 Check air pressure sensor B resistance or output signal with a scan tool while gently wiggling the harness to detect intermittent faults.
- 6 If wiring and connectors are good, replace the reductant injection air pressure sensor B and clear codes.
- 7 After repair, run the vehicle through a complete drive cycle to confirm the code does not return and monitor sensor voltage live.

What the air pressure sensor really monitors

- A low voltage code often results from a short to ground in the signal wire, which can be caused by chafing against a bracket or heat shield, not just a failed sensor.
- Technicians sometimes replace the sensor only to find the connector pins have been pushed back or corroded, so always perform a pin drag test before condemning the part.
- The reductant injection air pressure sensor B may share a reference voltage with other sensors; a fault in one can pull down the shared reference and set multiple codes.
- Exhaust backpressure or a restricted air injection filter can cause low pressure readings that mimic an electrical fault, so check for mechanical restrictions as well.
- This code can be set by a weak battery or charging system issue that causes low voltage at the sensor during cranking, so verify battery condition first.

Can I keep driving with P209C?

You can usually continue driving with P209C, but avoid heavy loads or long trips until diagnosed because the vehicle may enter limp mode or increase emissions. If the check engine light flashes or you notice reduced power, have it checked promptly.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wire piercing probes or back probe pins
- Vehicle-specific wiring diagram
- Basic hand tools for connector and sensor access



Reading P209C

- P** Powertrain: engine, transmission and emissions.
- 2** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 0** Fuel and air metering and auxiliary emission controls.
- 9C** The exact fault within that area.

Often seen with

P209D Reductant Injection Air Pressure Sensor B Circuit High · **P209E** Reductant Injection Air Pressure Sensor A/B Correlation · **P20B9** Reductant Heater A Control Circuit/Open · **P20BA** Reductant Heater A Control Performance · **P20BE** Reductant Heater B Control Circuit Performance

See it working

Watch the animated explainer [How Crank and Cam Position Sensors Work](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p209c/>

