

GENERIC · POWERTRAIN

P209D

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P209D

Reductant Injection Air Pressure Sensor B Circuit High

P209D indicates that the powertrain control module has detected an abnormally high voltage signal from the reductant injection air pressure sensor B circuit, which monitors the air pressure used to help inject diesel exhaust fluid into the exhaust stream. The computer expects the sensor's signal voltage to stay within a calibrated range, and a sustained high reading tells it that the circuit is open, shorted to voltage, or that the sensor itself is reporting an impossible pressure.

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 triggered by the powertrain control module
- A message on the dash indicating that the reductant system requires service
- Possible poor fuel economy or increased diesel exhaust fluid consumption
- In some cases, a rough idle or hesitation if the fault affects overall engine management

Common causes, most likely first

- 1 Open or high-resistance wiring in the sensor signal circuit, such as a broken wire or corroded connector
- 2 Short to voltage on the sensor signal circuit, often from chafed insulation contacting a power wire
- 3 Failed reductant injection air pressure sensor B, sending a fixed high voltage
- 4 Poor electrical connection at the sensor or powertrain control module harness
- 5 Contaminated or blocked air pressure passage causing the sensor to read incorrectly
- 6 Faulty powertrain control module, though this is rare



How to diagnose and fix it

- 1 Connect a scan tool and record the freeze-frame data and sensor voltage reading to confirm the fault is current
- 2 Visually inspect the sensor, its connector, and the wiring harness for damage, corrosion, or loose pins
- 3 Measure reference voltage and ground at the sensor connector with a digital multimeter to verify the circuit integrity
- 4 Check for a short to voltage on the signal wire by backprobing the connector with the key on and sensor disconnected
- 5 Test the sensor's resistance or voltage output according to the manufacturer's specification, and replace it if out of range
- 6 Repair any damaged wiring or connectors, then clear the codes and perform a road test to verify the repair
- 7 If the fault persists after all circuit and sensor checks, follow the factory diagnostic flow for powertrain control module testing

Why this code often misleads

- A high voltage reading on the signal circuit frequently comes from a simple unplugged or loose connector that was disturbed during unrelated service, not a failed sensor.
- Technicians sometimes replace the air pressure sensor only to find the real problem is a shorted wire where the harness rubs against a bracket near the exhaust, so always inspect the entire run.
- This code can be set by a clogged air pressure port in the reductant injection system, which makes the sensor report an impossible high pressure even though the sensor itself is good.
- A weak or failing battery can cause erratic sensor voltages that mimic a high signal, so verify charging system health before condemning the sensor.
- The code does not always mean the sensor is bad; a faulty powertrain control module ground can skew the reference voltage and set this code intermittently.

Can I keep driving with P209D?

You can usually continue driving to a repair shop, but avoid heavy loads or long trips because the vehicle may enter limp mode and reduce power unexpectedly. If the check engine light flashes or you notice severe power loss, stop driving and have the vehicle towed.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wire piercing probes or backprobe pins
- Factory service information for circuit specifications
- Basic hand tools for connector and sensor access



Reading P209D

- 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.
- 9D** The exact fault within that area.

Often seen with

P208E Reductant Injection Valve Stuck Closed (Bank 1 Unit 1) · **P209C** Reductant Injection Air Pressure Sensor B Circuit Low · **P209E** Reductant Injection Air Pressure Sensor A/B Correlation · **P20B9** Reductant Heater A Control Circuit/Open · **P20BA** Reductant Heater A Control Performance

See it working

Watch the animated explainer [How a Starter Motor Works: Pre-Engaged Starter](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p209d/>

