

GENERIC · POWERTRAIN

P203D

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P203D

Reductant Level Sensor A Circuit High

P203D indicates that the powertrain control module (PCM) has detected an abnormally high voltage on the signal circuit for reductant level sensor A, which monitors the diesel exhaust fluid (DEF) tank level. The sensor circuit is expected to operate within a specific voltage range, and a high reading typically means the signal wire is shorted to voltage or the sensor's internal resistance has increased beyond normal limits.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Fuel and air metering and auxiliary emission controls

Symptoms you may notice

- Illumination of the malfunction indicator lamp (MIL) on the dashboard
- Often no symptoms besides the warning light, especially if the DEF level is still sufficient
- A driver information message indicating a DEF system fault or incorrect level reading
- Incorrect or erratic DEF level gauge readings on the instrument cluster
- Possible activation of a speed limitation or engine derate if the fault persists and the vehicle enters limp mode
- In some cases, a no-start condition after the engine is shut off if the system cannot verify DEF level

Common causes, most likely first

- 1 Reductant level sensor A internal failure causing an open circuit or high resistance
- 2 Short to voltage on the sensor signal circuit between the sensor and the PCM
- 3 Corroded, damaged, or disconnected electrical connector at the reductant level sensor
- 4 Wiring harness damage (chafed, pinched, or broken wires) along the sensor circuit
- 5 Faulty PCM driver or internal circuit for the reductant level sensor input
- 6 Contamination or debris in the DEF tank interfering with the sensor's float or ultrasonic mechanism
- 7 Aftermarket or incorrect DEF fluid causing sensor malfunction (rare but possible)



How to diagnose and fix it

- 1 Use a scan tool to retrieve all stored codes and freeze-frame data, then clear the code and verify if it returns immediately.
- 2 Visually inspect the reductant level sensor connector and wiring for corrosion, loose pins, or physical damage; repair as needed.
- 3 Measure the sensor signal voltage with a digital multimeter (DMM) at the sensor connector and compare to the manufacturer's specification; a reading near 5 volts (reference voltage) indicates a short to voltage.
- 4 Disconnect the sensor and check for a short to voltage on the signal circuit between the sensor and PCM; repair the harness if a short is found.
- 5 Test the reductant level sensor resistance or output signal according to the service manual; replace the sensor if it is out of specification.
- 6 If the sensor and wiring test good, check for a faulty PCM by verifying the signal circuit at the PCM connector; replace or reprogram the PCM only as a last resort.
- 7 After repairs, clear codes, perform a DEF level relearn or adaptation procedure if required, and verify the code does not return during a test drive.

Before you replace the DEF level sensor

- A short to voltage on the signal circuit is often caused by a rubbed-through wire near the DEF tank or along the frame rail, so inspect the harness thoroughly before condemning the sensor.
- The code can be set by a poor connection at the sensor connector that intermittently shorts to the 5-volt reference, so always perform a wiggle test while monitoring live data.
- Some vehicles use a combined level and temperature sensor; a failure in the temperature portion can affect the level signal, so check both functions if the sensor is a multi-function unit.
- After replacing the sensor, some PCMs require a DEF level reset or adaptation procedure; failing to perform this can cause the code to reappear even with a good sensor.
- Do not assume the PCM is faulty; PCM internal failures are rare, and most high-voltage codes trace back to wiring or the sensor itself.

Can I keep driving with P203D?

You can generally continue driving with this code, but avoid long trips or heavy loads until it is repaired because the vehicle may eventually enter a derate or no-start condition if the fault persists. Monitor the DEF level manually and refill as needed, and do not ignore the warning light if it is accompanied by a speed limitation message.



Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter (DMM)
- Wire repair kit (solder, heat shrink, crimp connectors)
- Service manual or wiring diagram for the specific vehicle
- Basic hand tools (socket set, screwdrivers, trim removal tools)

Reading P203D

- P** Powertrain: engine, transmission and emissions.
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- 2** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
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- 0** Fuel and air metering and auxiliary emission controls.
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- 3D** The exact fault within that area.

Often seen with

P203C Reductant Level Sensor A Circuit Low · **P203E** Reductant Level Sensor A Circuit Intermittent/Erratic · **P203F** Reductant Level Too Low · **P20B9** Reductant Heater A Control Circuit/Open · **P20BA** Reductant Heater A Control Performance

See it working

Watch the animated explainer [How a Turbocharger Works, Step by Step](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p203d/>

