

GENERIC · POWERTRAIN

P20DD

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P20DD

Exhaust Aftertreatment Fuel Pressure Sensor Circuit

P20DD indicates that the powertrain control module (PCM) has detected an abnormal signal from the exhaust aftertreatment fuel pressure sensor, which monitors the pressure of the fuel used in the exhaust aftertreatment system. The PCM compares the sensor voltage to expected values and sets this code when the signal falls outside the valid range or is inconsistent with other sensor inputs.

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 check engine light, often with no other noticeable symptoms
- Reduced engine power or limp mode in some vehicles
- Poor fuel economy or increased exhaust smoke
- Difficulty initiating or completing a diesel particulate filter (DPF) regeneration
- Rough running or hesitation during aftertreatment fuel injection events
- Possible odor of raw fuel in the exhaust

Common causes, most likely first

- 1 Faulty exhaust aftertreatment fuel pressure sensor
- 2 Damaged or corroded wiring or connector at the sensor
- 3 Clogged or restricted fuel pressure sensor supply tube
- 4 Failed exhaust aftertreatment fuel injector or pump
- 5 Low fuel pressure or fuel starvation in the aftertreatment fuel system
- 6 PCM software issue or internal fault



How to diagnose and fix it

- 1 Use a scan tool to verify the P20DD code and check for any related codes in the aftertreatment system
- 2 Inspect the sensor wiring and connector for damage, corrosion, or loose pins
- 3 Check the fuel pressure sensor supply tube for blockages or leaks
- 4 Measure the sensor reference voltage and signal voltage with a multimeter and compare to manufacturer specifications
- 5 Test the aftertreatment fuel pump and injector for proper operation and pressure
- 6 Replace the exhaust aftertreatment fuel pressure sensor if testing indicates it is faulty
- 7 Clear the code and perform a road test or regeneration cycle to confirm the repair

Common misdiagnosis of P20DD

- A clogged sensor tube can mimic a failed sensor, so always check for restrictions before replacing parts.
- The code can be set by low fuel pressure in the aftertreatment system, which may be caused by a weak pump or a clogged filter elsewhere in the fuel system.
- In some vehicles, a faulty exhaust aftertreatment fuel injector can cause pressure fluctuations that trigger this code, even though the sensor itself is fine.
- Intermittent wiring faults often set P20DD only under specific conditions like vibration or temperature changes, so wiggle-test the harness while monitoring live data.
- Replacing the sensor without checking the fuel pressure regulator or pump can lead to a repeat failure if the root cause is elsewhere.

Can I keep driving with P20DD?

It is generally safe to drive with P20DD if the vehicle is not in limp mode, but avoid heavy loads or long trips until diagnosed. Prolonged driving with a faulty aftertreatment fuel system can lead to DPF damage or increased emissions.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Fuel pressure gauge
- Hand tools for sensor removal
- Wiring diagram for the specific vehicle



Reading P20DD

- 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.
- DD** The exact fault within that area.

Often seen with

P20DC Exhaust Aftertreatment Fuel Supply Control Stuck Closed · **P20DE** Exhaust Aftertreatment Fuel Pressure Sensor Circuit Range/Pe · **P20E0** Reductant Pressure Too Low · **P20E1** Reductant Pressure Too Low · **P2453** Diesel Particulate Filter Pressure Sensor Circuit Range/Perf

See it working

Watch the animated explainer [How Hydraulic Brakes Work: Pedal to Caliper](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p20dd/>

