

GENERIC · POWERTRAIN

P20DB

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P20DB

Exhaust Aftertreatment Fuel Supply Control Stuck Open

P20DB indicates that the powertrain control module (PCM) has commanded the exhaust aftertreatment fuel supply control valve to open, but the circuit or valve response indicates it is stuck open. The PCM monitors the control circuit and detects an unexpected continuous flow or a feedback signal that does not match the commanded state, meaning the valve is allowing fuel into the exhaust when it should be closed.

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

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms.
- A strong diesel or raw fuel odor from the exhaust, especially after the engine is shut off.
- Excessive white or gray smoke from the tailpipe due to unburned fuel in the exhaust stream.
- Poor fuel economy as fuel is wasted through the exhaust system.
- Possible rough running or misfire if the extra fuel affects combustion.
- In some cases, the vehicle may enter limp mode or limit engine power to protect the aftertreatment system.

Common causes, most likely first

- 1 A failed exhaust aftertreatment fuel supply control valve that is mechanically stuck open.
- 2 A short to voltage or ground in the control circuit wiring, holding the valve open.
- 3 A faulty PCM driver that continuously commands the valve open.
- 4 Contamination or debris in the fuel supply line causing the valve to jam open.
- 5 A restricted or clogged fuel injector nozzle in the exhaust aftertreatment system, causing a constant drip.
- 6 Corroded or damaged electrical connectors at the valve or PCM.
- 7 A failed fuel pressure sensor providing erroneous feedback, leading to incorrect valve control.



How to diagnose and fix it

- 1 Use a scan tool to verify the code and check for any related pending or stored codes in the aftertreatment system.
- 2 Visually inspect the fuel supply control valve, wiring, and connectors for damage, corrosion, or signs of fuel leakage.
- 3 Perform a circuit test on the control valve using a multimeter to check for shorts to voltage or ground, and compare resistance to specifications.
- 4 Command the valve open and closed with the scan tool while monitoring fuel pressure or flow to see if it responds correctly.
- 5 If the valve fails to close or shows continuous flow, remove and inspect it for mechanical sticking or contamination; clean or replace as needed.
- 6 Check the fuel supply lines and injector nozzle for restrictions or leaks that could mimic a stuck-open valve.
- 7 After repair, clear the codes and perform a road test to confirm the code does not return and the aftertreatment system operates normally.

Don't overlook the fuel pressure sensor

- A stuck-open exhaust fuel valve often produces no drivability symptoms, so the check engine light may be the only clue until the exhaust system becomes saturated with fuel.
- The code can be set by a wiring short that holds the valve energized, so always inspect the harness for chafing or pinched wires before condemning the valve itself.
- A faulty fuel pressure sensor can report low pressure, causing the PCM to hold the valve open longer than needed, which sets this code without any mechanical fault in the valve.
- On some vehicles, a stuck-open valve can cause fuel to accumulate in the exhaust, leading to a dangerous backfire or even a fire hazard if the exhaust temperature rises.
- Replacing the valve without checking the fuel supply lines for contamination often leads to repeat failures, as debris can quickly damage the new valve.

Can I keep driving with P20DB?

It is not advisable to continue driving with this code because unburned fuel in the exhaust can overheat and damage the aftertreatment system, and in severe cases may create a fire risk. If you must drive to a repair shop, keep the trip short and avoid heavy acceleration or high exhaust temperatures.

Tools that help

- OBD-II scan tool with bidirectional control capability
- Digital multimeter
- Fuel pressure gauge
- Hand tools for valve removal
- Wiring diagram for the specific vehicle



Reading P20DB

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

Often seen with

P20DC Exhaust Aftertreatment Fuel Supply Control Stuck Closed · **P20DD** Exhaust Aftertreatment Fuel Pressure Sensor Circuit · **P20DE** Exhaust Aftertreatment Fuel Pressure Sensor Circuit Range/Pe · **P20DF** Exhaust Aftertreatment Fuel Pressure Sensor Circuit Low · **P20E0** Reductant Pressure Too Low

See it working

Watch the animated explainer [How a Manual Transmission Works: Four-Speed Cutaway](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p20db/>

