

GENERIC · POWERTRAIN

P20D2

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P20D2

Exhaust Aftertreatment Fuel Injector B Control Performance

P20D2 indicates that the powertrain control module (PCM) has detected a performance fault in the control circuit for the exhaust aftertreatment fuel injector on bank 2, which is used to raise exhaust temperature for diesel particulate filter regeneration. The PCM monitors the injector's electrical response and expected effect on exhaust temperature, and it sets this code when the circuit does not behave as commanded.

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 malfunction indicator lamp (MIL) with often no other noticeable symptoms
- Reduced engine power or limp mode during active regeneration attempts
- Increased frequency of regeneration cycles or a regeneration that never completes
- Exhaust smoke or a strong fuel odor from the tailpipe during regeneration
- Rough running or misfire-like behavior when the aftertreatment injector is commanded on
- Poor fuel economy as the PCM attempts repeated regenerations

Common causes, most likely first

- 1 Faulty exhaust aftertreatment fuel injector (bank 2) with a restricted nozzle or internal electrical failure
- 2 Damaged or corroded wiring harness and connector at the aftertreatment injector
- 3 Open or shorted control circuit between the PCM and the injector
- 4 Failed PCM driver for the aftertreatment injector circuit
- 5 Exhaust system restrictions or leaks upstream of the injector affecting its performance
- 6 Low fuel pressure or a clogged fuel supply line to the aftertreatment injector
- 7 Failed exhaust gas temperature sensors providing inaccurate feedback to the PCM



How to diagnose and fix it

- 1 Verify the stored code and check for any related aftertreatment or fuel system codes before proceeding
- 2 Inspect the aftertreatment injector connector and wiring for corrosion, chafing, or loose pins
- 3 Measure the injector coil resistance and compare it to the manufacturer's specification
- 4 Check fuel pressure and flow to the aftertreatment injector, looking for restrictions or air intrusion
- 5 Command the injector on with a scan tool and observe exhaust temperature changes to confirm operation
- 6 Test the control circuit from the PCM to the injector for continuity and shorts to ground or power
- 7 Replace the aftertreatment fuel injector if electrical and fuel delivery tests pass but performance remains faulty

Before replacing the aftertreatment injector

- A clogged or restricted aftertreatment injector nozzle is a common cause that does not always set an electrical circuit code, so fuel flow testing is essential.
- Exhaust backpressure or a failing diesel particulate filter can mimic injector performance faults by preventing the expected temperature rise.
- Corroded pins in the injector connector often cause intermittent performance codes that disappear after clearing, leading to misdiagnosis.
- The PCM may set P20D2 when exhaust gas temperature sensors are skewed, even though the injector itself is functioning correctly.
- Aftermarket or incorrect fuel additives can clog the aftertreatment injector, so fuel quality and maintenance history should be reviewed.

Can I keep driving with P20D2?

The vehicle can usually be driven short distances at reduced load, but avoid sustained highway driving or heavy towing until the fault is repaired because failed regenerations can lead to a plugged diesel particulate filter. If the engine enters limp mode or regeneration cannot complete, seek service promptly.

Tools that help

- OBD-II scan tool with bidirectional control and live data
- Digital multimeter
- Fuel pressure gauge
- Exhaust backpressure gauge
- Infrared thermometer
- Manufacturer-specific wiring diagrams



Reading P20D2

- 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.
- D2** The exact fault within that area.

Often seen with

P2002 Particulate Trap Efficiency Below Threshold (Bank 1) · **P20D0** Exhaust Aftertreatment Fuel Injector A Stuck Closed · **P20D1** Exhaust Aftertreatment Fuel Injector B Control Circuit/Open · **P20D3** Exhaust Aftertreatment Fuel Injector B Control Circuit Low · **P2463** Diesel Particulate Filter Restriction - Soot Accumulation

See it working

Watch the animated explainer [How Push-Button Start Works: Keyless Ignition](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p20d2/>

