

GENERIC · POWERTRAIN

P20CE

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P20CE

Exhaust Aftertreatment Fuel Injector A Control Circuit High

P20CE indicates that the powertrain control module (PCM) has detected an abnormally high voltage on the control circuit for the exhaust aftertreatment fuel injector 'A'. This injector is used in diesel exhaust fluid (DEF) or hydrocarbon injection systems to introduce fuel into the exhaust stream for regeneration of the diesel particulate filter (DPF) or for catalytic converter heating. The high voltage suggests an open circuit, a short to voltage, or a faulty injector coil.

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 (malfunction indicator lamp, MIL)
- Often no symptoms besides the warning light
- Reduced engine power or limp mode in some vehicles
- Poor fuel economy or increased regeneration frequency
- Possible rough running or misfire if the injector is stuck open
- Exhaust smoke or odor due to improper aftertreatment operation

Common causes, most likely first

- 1 Open or high-resistance wiring in the injector control circuit
- 2 Faulty exhaust aftertreatment fuel injector (coil open or shorted)
- 3 Corroded or damaged electrical connector at the injector or PCM
- 4 Short to voltage on the control circuit (e.g., chafed wire touching power)
- 5 Failed PCM driver for the injector circuit (rare)
- 6 Blown fuse or relay supplying power to the injector (if applicable)



How to diagnose and fix it

- 1 Verify the code with a scan tool and check for related codes in the aftertreatment system
- 2 Inspect the injector harness and connectors for damage, corrosion, or loose pins
- 3 Measure the resistance of the injector coil and compare to manufacturer specifications
- 4 Check for short to voltage or open circuit in the control wire using a multimeter
- 5 Test the PCM output signal with an oscilloscope or noid light if applicable
- 6 Replace the faulty injector if tests indicate an open or shorted coil
- 7 Repair or replace damaged wiring and clear the code, then verify the repair with a test drive

Don't overlook the injector driver circuit

- A high voltage code often points to an open circuit rather than a shorted injector, so inspect wiring before replacing parts.
- Some vehicles use a separate injector driver module that can fail and set this code even when the injector itself is good.
- The exhaust aftertreatment fuel injector may only activate during regeneration, so a fault may not cause noticeable symptoms until regeneration is attempted.
- Corrosion inside the injector connector can create high resistance that mimics an open circuit, so always perform a voltage drop test under load.
- This code can be set by a loose ground connection for the injector circuit, which is often overlooked during diagnosis.

Can I keep driving with P20CE?

It is generally safe to drive with this code as long as the engine is running normally, but avoid long trips or heavy loads until repaired because the aftertreatment system may not regenerate properly, leading to DPF clogging and reduced performance.

Tools that help

- OBD-II scan tool
- Digital multimeter
- Oscilloscope (optional)
- Wire repair kit
- Factory service information for wiring diagrams



Reading P20CE

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

Often seen with

P20BD Reductant Heater B Control Circuit/Open · **P20BE** Reductant Heater B Control Circuit Performance · **P20BF** Reductant Heater B Control Circuit Low · **P20C0** Reductant Heater B Control Circuit High · **P20CD** Exhaust Aftertreatment Fuel Injector A Control Circuit Low

See it working

Watch the animated explainer [How a Boxer Engine Works: Flat Engine Cutaway](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p20ce/>

