

GENERIC · POWERTRAIN

P00C9

OBD-II TROUBLE CODE

P00C9

Fuel Pressure Regulator A Solenoid Supply Voltage Control Circuit Low

P00C9 indicates that the powertrain control module has detected a low-voltage condition on the supply circuit for the fuel pressure regulator A solenoid, which is used to control fuel pressure in the high-pressure fuel system. The computer monitors the control circuit and sets this code when the voltage on the solenoid supply side falls below the expected threshold, indicating a short to ground, an open circuit, or excessive resistance in the wiring or solenoid.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering and auxiliary emission controls

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Rough idle or engine misfire due to incorrect fuel pressure
- Hesitation or stumble during acceleration
- Reduced engine power or limp mode in some vehicles
- Hard starting or extended cranking time
- Poor fuel economy or increased fuel consumption

Common causes, most likely first

- 1 Faulty fuel pressure regulator solenoid with an internal short or open winding
- 2 Damaged or corroded wiring harness to the solenoid, including chafed wires or broken connectors
- 3 Poor electrical connection at the solenoid or powertrain control module
- 4 Short to ground in the supply circuit between the solenoid and the control module
- 5 Blown fuse or faulty relay supplying power to the solenoid circuit
- 6 Corrosion or water intrusion in the connector causing high resistance
- 7 Failed powertrain control module driver circuit (less common)



How to diagnose and fix it

- 1 Inspect the fuel pressure regulator solenoid connector and wiring for damage, corrosion, or loose pins
- 2 Check the fuse and relay that supply power to the solenoid circuit and replace if faulty
- 3 Measure resistance of the solenoid coil and compare to manufacturer specifications
- 4 Perform a voltage drop test on the supply circuit to identify excessive resistance or a short
- 5 Disconnect the solenoid and check for battery voltage on the supply wire with the key on; repair open or short as needed
- 6 If wiring and solenoid test good, check the control module driver circuit and replace the module if defective
- 7 Clear the code and perform a road test to verify the repair and ensure the code does not return

Don't overlook the simple electrical checks

- A loose or corroded ground connection for the fuel pressure regulator solenoid can cause this code even when the solenoid itself is good.
- The code can be set by a momentary voltage spike or glitch, so always check for a stored history code and perform a wiggle test on the harness.
- Some vehicles use a shared power supply for multiple solenoids, so a fault in another component on the same circuit can trigger P00C9.
- Replacing the fuel pressure regulator solenoid without checking the wiring is a common misdiagnosis that leads to repeat failures.
- The supply voltage control circuit may be controlled by the powertrain control module via a low-side driver, so a short to ground on the control side can also set this code.

Can I keep driving with P00C9?

It is generally safe to drive with this code if the vehicle is running normally, but avoid aggressive acceleration or heavy loads until the fault is repaired. If the engine runs rough, hesitates, or enters limp mode, have the vehicle diagnosed promptly to prevent potential damage to the fuel system or catalytic converter.

Tools that help

- OBD-II scan tool
- Digital multimeter
- Wiring diagram for the specific vehicle
- Test light
- Socket set and screwdrivers for connector access



Reading P00C9

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 0** Fuel and air metering and auxiliary emission controls.
- C9** The exact fault within that area.

Often seen with

P0087 Fuel Rail/System Pressure - Too Low · **P0088** Fuel Rail/System Pressure - Too High · **P0090** Fuel Pressure Regulator 1 Control Circuit · **P00C8** Fuel Pressure Regulator A Solenoid Supply Voltage Control Ci · **P00CA** Fuel Pressure Regulator A Solenoid Supply Voltage Control Ci

See it working

Watch the animated explainer [How a Padlock Works: Pin Tumbler Lock in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p00c9/>

