

GENERIC · POWERTRAIN

P2C03

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

## P2C03

# Fuel Pressure Regulator D Control Circuit Low

P2C03 indicates that the powertrain control module has detected a low-voltage condition on the control circuit for the fuel pressure regulator labeled D, which is a solenoid or actuator used to manage fuel pressure. The circuit is considered low when the voltage falls below the expected range, often due to a short to ground, an open circuit, or a faulty regulator.

| SYSTEM     | CODE TYPE           | SEVERITY | FIX DIFFICULTY | AREA              |
|------------|---------------------|----------|----------------|-------------------|
| Powertrain | Generic (all makes) | Medium   | Intermediate   | Hybrid propulsion |

## Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Rough idle or stumbling during acceleration due to incorrect fuel pressure
- Reduced engine power or limp mode in some vehicles
- Poor fuel economy or rich/lean fuel mixture codes
- Hard starting or extended cranking times

## Common causes, most likely first

- 1 Faulty fuel pressure regulator D solenoid or actuator
- 2 Damaged or corroded wiring in the control circuit (short to ground or open)
- 3 Loose or corroded electrical connector at the regulator
- 4 Failed powertrain control module driver for the circuit
- 5 Blown fuse or relay supplying power to the regulator circuit

## How to diagnose and fix it

- 1 Inspect the wiring harness and connector at the fuel pressure regulator for damage, corrosion, or looseness
- 2 Check the fuse and relay that supply power to the regulator circuit
- 3 Measure resistance of the regulator solenoid and compare to manufacturer specifications
- 4 Test the control circuit for a short to ground or open using a multimeter and wiring diagram
- 5 If the circuit is intact, substitute a known-good regulator to see if the code clears
- 6 Repair or replace damaged wiring or connectors as needed
- 7 Clear the code and verify the repair with a test drive



## Don't overlook the wiring harness

- A common cause of P2C03 is a chafed wire in the harness near the fuel pressure regulator, which can short to ground intermittently and set the code only under certain conditions.
- The code does not always mean the regulator itself has failed; the control circuit can be affected by a faulty ground connection elsewhere on the engine.
- Some vehicles use a fuel pressure control module that can fail and cause this code, even though the regulator is functioning correctly.
- A low voltage code can be set by a weak battery or charging system issue, so always check battery voltage and connections before replacing parts.

## Can I keep driving with P2C03?

You can usually drive with this code, but avoid heavy acceleration or towing until it is repaired, as incorrect fuel pressure may cause poor performance or increased emissions.

## Tools that help

- OBD-II scanner
- Digital multimeter
- Wiring diagram for the specific vehicle
- Basic hand tools (screwdrivers, socket set)
- Test light

## Reading P2C03

- P** Powertrain: engine, transmission and emissions.
- 2** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- C** Hybrid propulsion.
- 03** 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 · **P0091** Fuel Pressure Regulator 1 Control Circuit Low · **P2C04** Fuel Pressure Regulator D Control Circuit High



## See it working

Watch the animated explainer [How Variable Valve Timing Works: Cam Phaser and VVT Solenoid](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2c03/>

