



P01C1

Fuel Rail Pressure Sensor Circuit High Bank 2

P01C1 means the powertrain control module (PCM) has detected a fuel rail pressure sensor signal on bank 2 that is higher than the expected range for the current operating conditions. The PCM compares the sensor's voltage or pressure reading against a calculated model and sets the code when the signal stays above the high threshold for a calibrated time.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Fuel and air metering

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Rough idle or stumbling, especially when the engine is cold
- Reduced engine power or limp mode under acceleration
- Poor fuel economy or a rich-running smell from the exhaust
- Hard starting or extended cranking before the engine fires
- Black smoke or soot from the tailpipe in severe cases

Common causes, most likely first

- 1 Faulty fuel rail pressure sensor on bank 2, reading high due to internal failure or contamination
- 2 Damaged or chafed sensor wiring harness, causing a short to voltage on the signal circuit
- 3 Corroded or loose electrical connector at the bank 2 fuel rail pressure sensor
- 4 Restricted fuel return line or a stuck fuel pressure regulator causing actual rail pressure to run high
- 5 PCM calibration issue or internal PCM fault misinterpreting the sensor signal
- 6 Contaminated fuel or debris blocking the sensor's pressure port



How to diagnose and fix it

- 1 Connect a scan tool and record freeze-frame data for P01C1, then clear the code and verify whether it returns immediately or only under specific conditions
- 2 Visually inspect the bank 2 fuel rail pressure sensor, its connector, and the wiring harness for chafing, corrosion, or loose pins
- 3 Measure the sensor reference voltage and signal voltage with a digital multimeter (DMM) and compare against the manufacturer's specification
- 4 Check actual fuel rail pressure with a mechanical gauge or scan tool live data to determine whether the high reading is real or sensor-induced
- 5 Perform a voltage drop test on the sensor ground circuit to rule out a poor ground causing a skewed signal
- 6 If wiring and connectors are good, substitute a known-good sensor and recheck live data before condemning the PCM
- 7 After repair, clear codes, perform a road test with live data monitoring, and confirm the fuel rail pressure tracks commanded pressure within specification

What a high bank 2 reading really tells you

- A high signal voltage does not always mean the sensor is bad; a short to voltage in the harness or a bad ground can produce the same reading, so always test the circuit before replacing parts.
- On many engines, bank 2 fuel rail pressure sensor faults are caused by a restricted fuel return line that raises actual rail pressure, which the sensor correctly reports as high.
- Intermittent P01C1 codes that appear only on cold starts often trace to a connector with moisture intrusion or a harness rubbed through near the intake manifold.
- Some vehicles use a shared reference voltage for multiple sensors; a fault in another sensor on that circuit can pull the reference high and set P01C1 as a secondary code.
- Clearing the code without checking freeze-frame data can erase the operating conditions that would have pointed directly to the root cause, so capture that data first.

Can I keep driving with P01C1?

You can usually drive the vehicle short distances to a repair shop, but avoid heavy acceleration, towing, or sustained high-speed driving because a rich condition can overheat the catalytic converter. If the engine enters limp mode or runs very rough, stop driving and arrange a tow.

Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter (DMM) with back-probing pins
- Fuel pressure gauge kit
- Wiring diagram for the bank 2 fuel rail pressure sensor circuit
- Basic hand tools for connector and sensor access



Reading P01C1

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 1** Fuel and air metering.
- C1** The exact fault within that area.

Often seen with

P0087 Fuel Rail/System Pressure - Too Low · **P0088** Fuel Rail/System Pressure - Too High · **P0191** Fuel Rail Pressure Sensor Circuit Range/Performance · **P01C0** Fuel Rail Pressure Sensor Circuit Low Bank 2 · **P01C2** Fuel Rail Pressure Sensor Circuit Intermittent/Erratic Bank

See it working

Watch the animated explainer [Car Won't Start? Step-by-Step No-Start Diagnosis](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p01c1/>

