



P01BE

Fuel Rail Pressure Sensor Circuit Bank 2

P01BE indicates that the powertrain control module has detected an abnormal voltage signal from the fuel rail pressure sensor on bank 2 of the engine. The sensor monitors the pressure of the fuel in the rail that feeds the injectors on that bank, and the computer compares the signal to expected values to set this code when the circuit falls outside the normal operating range.

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 symptoms noticed by the driver
- Rough idle or engine misfire, especially when the engine is cold or under light load
- Reduced engine power or a limp-home mode triggered by the computer
- Difficulty starting or a longer crank time before the engine fires
- Poor fuel economy or an increase in exhaust smoke on diesel engines
- Intermittent hesitation or stumble during acceleration

Common causes, most likely first

- 1 Faulty fuel rail pressure sensor on bank 2, such as an internal short or open circuit
- 2 Damaged or corroded wiring harness connector at the sensor or along the circuit
- 3 Chafed, broken, or shorted wires in the sensor circuit, often near hot or moving components
- 4 Poor electrical connection at the powertrain control module connector
- 5 Low fuel pressure or a restriction in the fuel system that causes the sensor to read out of range
- 6 Contamination or debris on the sensor tip affecting its reading
- 7 A failed fuel pressure regulator or pump that cannot maintain the expected rail pressure



How to diagnose and fix it

- 1 Connect a scan tool and record the freeze-frame data and any stored codes to confirm the fault conditions
- 2 Visually inspect the fuel rail pressure sensor and its connector for damage, corrosion, or loose pins
- 3 Perform a wiggle test on the wiring harness while watching live sensor data to reveal intermittent faults
- 4 Measure the sensor reference voltage and ground at the connector with a digital multimeter to verify the circuit
- 5 Check fuel system pressure with a mechanical gauge to rule out a low-pressure condition that mimics a sensor fault
- 6 If the circuit and pressure are good, replace the fuel rail pressure sensor and clear the codes
- 7 After repairs, road-test the vehicle and verify that the code does not return and that live data reads within specification

What the P01BE code does not always mean

- A P01BE code is frequently set by a poor connection at the sensor connector rather than a failed sensor, so always inspect and clean the terminals before condemning the part.
On many vehicles, a low fuel level or a weak lift pump can cause the rail pressure to drop and trigger this code, so check fuel supply before replacing the sensor.
- The bank 2 designation means the sensor is on the side of the engine that does not include cylinder number one, and misidentifying the bank can lead to replacing the wrong sensor.
- Intermittent wiring faults that only appear when the engine is hot or vibrating are a common cause, and a simple resistance check at room temperature may not reveal them.
Some vehicles use a shared reference voltage for multiple sensors, so a short in another sensor on the same circuit can set P01BE along with other codes.

Can I keep driving with P01BE?

You can usually drive the vehicle with this code, but expect reduced performance and possible limp-home mode, so avoid heavy acceleration and towing until the fault is repaired. If the engine runs rough or stalls, stop driving and have the vehicle inspected promptly.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Fuel pressure test gauge
- Wiring diagram for the fuel rail pressure sensor circuit
- Basic hand tools for connector and sensor removal



Reading P01BE

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

Often seen with

P0087 Fuel Rail/System Pressure - Too Low · **P0088** Fuel Rail/System Pressure - Too High · **P01B9** Engine Oil Temperature Sensor B Circuit · **P01BA** Engine Oil Temperature Sensor B Range/Performance · **P01BF** Fuel Rail Pressure Sensor Circuit Range/Performance Bank 2

See it working

Watch the animated explainer [Master the Four-Stroke Engine Cycle](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p01be/>

