

GENERIC · POWERTRAIN

P2069

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2069

Fuel Level Sensor 'B' Circuit Intermittent

P2069 indicates that the powertrain control module (PCM) has detected an intermittent fault in the electrical circuit for fuel level sensor 'B'. This sensor, often a secondary fuel level sender in the tank, provides a signal that the PCM uses to calculate fuel volume; the code sets when the signal momentarily drops out or jumps erratically beyond normal thresholds.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Low	Intermediate	Fuel and air metering and auxiliary emission controls

Symptoms you may notice

- Fuel gauge reading fluctuates or drops to empty intermittently
- Low fuel warning light illuminates even when the tank is not empty
- Often no symptoms besides the warning light, especially if sensor 'B' is a secondary sender
- Inaccurate fuel range or distance-to-empty display
- Possible hesitation or poor performance if the PCM uses the signal for fuel strategy (rare)
- Inconsistent fuel gauge behavior over bumps or during cornering

Common causes, most likely first

- Wiring harness chafing or damage near the fuel tank or along the frame
- Corroded or loose electrical connector at the fuel tank sending unit
- Failed fuel level sensor 'B' (sending unit) inside the tank
- Poor ground connection for the fuel level circuit
- Faulty fuel pump module assembly (if sensor is integrated)
- PCM internal fault (rare)

How to diagnose and fix it

- Inspect the fuel level sensor 'B' wiring and connector for damage, corrosion, or looseness; repair as needed
- Check the ground circuit for the fuel level sensor and clean or tighten connections
- Measure the resistance of sensor 'B' while moving the float through its range and compare to specifications
- Backprobe the sensor signal wire at the PCM and monitor for intermittent voltage drops while wiggling the harness
- If the sensor is faulty, replace the fuel level sending unit or fuel pump module as required
- Clear the diagnostic trouble codes (DTCs) and verify the repair by test-driving and monitoring live data

Intermittent Fuel Gauge Faults Often Misdiagnosed

- A intermittent code like P2069 often results from a poor connection that only acts up under specific conditions such as vibration or temperature changes, so a thorough wiggle test of the harness is essential.
- Many vehicles use two fuel level sensors to calculate total fuel volume; sensor 'B' may be the secondary unit, and its failure might not affect the gauge immediately, leading owners to ignore the warning.
- Corrosion inside the fuel tank sending unit can cause erratic resistance values that mimic a wiring fault, so always test the sensor itself before replacing expensive modules.
- The PCM may set P2069 if the signal from sensor 'B' momentarily shorts to voltage or ground, which can be caused by a chafed wire rubbing against the chassis.
- Do not replace the fuel pump assembly solely based on this code; verify the circuit integrity and sensor resistance first to avoid unnecessary repairs.

Can I keep driving with P2069?

The vehicle remains safe to drive because the fault primarily affects fuel gauge accuracy, but you should refuel based on mileage rather than the gauge until repaired. Avoid relying on the fuel range display and address the issue promptly to prevent running out of fuel unexpectedly.

Tools that help

- Digital multimeter
- Scan tool with live data capability
- Wiring diagram for the fuel level circuit
- Test light
- Fuel tank sending unit wrench (if equipped)

Reading P2069

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.
69	The exact fault within that area.

Often seen with

P0460 Fuel Level Sensor Circuit Malfunction · **P0461** Fuel Level Sensor Circuit Range/Performance · **P0462** Fuel Level Sensor Circuit Low Input · **P2067** Fuel Level Sensor 'B' Circuit Low · **P2068** Fuel Level Sensor 'B' Circuit High



See it working

Watch the animated explainer [How an Elevator Works: Traction Lift in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2069/>

