

GENERIC · POWERTRAIN

P2066

OBD-II TROUBLE CODE

P2066

Fuel Level Sensor 'B' Performance

P2066 indicates that the powertrain control module (PCM) has detected an implausible or erratic signal from fuel level sensor 'B', which is typically the secondary sensor in a dual-sender fuel tank. The PCM compares the sensor's voltage or resistance input against expected values and sets the code when the reading falls outside the normal operating range for a calibrated period.

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 reads incorrectly, often showing full when the tank is empty or empty when full
- Fuel gauge fluctuates or sweeps erratically while driving
- Low fuel warning light may illuminate at the wrong time or fail to come on when needed
- Often no symptoms besides the warning light, especially if the vehicle uses only one sensor for the gauge display
- Remote start or fuel economy calculations may be disabled or inaccurate
- On some vehicles, a message such as 'Fuel Level Sensor Fault' appears in the driver information center

Common causes, most likely first

- Faulty fuel level sensor 'B' (worn resistor track or stuck float arm)
- Damaged or corroded wiring harness or connector at the fuel tank sending unit
- Poor ground connection for the fuel level sensor circuit
- Contaminated fuel or debris causing the float to stick
- Failed fuel pump module assembly that houses the sensor
- PCM internal fault or software issue (rare)



How to diagnose and fix it

- 1 Verify the fuel gauge operation by comparing the scan tool fuel level PID with the actual fuel tank level
- 2 Inspect the fuel level sensor 'B' wiring and connector for corrosion, chafing, or loose pins
- 3 Check the sensor ground circuit for excessive resistance using a multimeter
- 4 Remove the fuel pump module and inspect the sensor 'B' float arm for binding or damage
- 5 Test the sensor 'B' resistance across its full travel and compare with manufacturer specifications
- 6 Replace the faulty fuel level sensor or fuel pump module assembly as needed
- 7 Clear the diagnostic trouble code and verify the repair by cycling the ignition and monitoring the fuel level PID

What most technicians overlook with P2066

- Many vehicles use two fuel level sensors to calculate the total fuel level, and a failure of sensor 'B' often does not affect the gauge immediately because the PCM averages the two signals; this can mask the problem until the code sets.
- A stuck or binding float arm due to a deformed fuel tank or internal baffle damage is a common cause that is frequently missed when only the electrical circuit is tested.
- Aftermarket fuel pump modules sometimes have incompatible sensor resistance curves, which can set P2066 even though the new part appears to function.
- The code can be set by a faulty fuel pump control module on vehicles with pulse-width-modulated fuel pumps, so testing the sensor alone may not find the root cause.
- Corrosion inside the connector at the fuel tank is often hidden by a rubber boot and can cause intermittent signals that only appear under vibration or temperature changes.

Can I keep driving with P2066?

The vehicle remains safe to drive because fuel level sensor 'B' does not affect engine operation or safety systems, but you should refuel based on the trip odometer rather than the gauge until the fault is repaired. Avoid running the tank very low, as an inaccurate gauge could leave you stranded.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Fuel tank sending unit wrench or lock ring pliers
- Wire terminal pick and electrical contact cleaner
- Vehicle service information for sensor resistance specifications



Reading P2066

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

Often seen with

P0460 Fuel Level Sensor Circuit Malfunction · **P0461** Fuel Level Sensor Circuit Range/Performance · **P2065** Fuel Level Sensor 'B' Circuit · **P2067** Fuel Level Sensor 'B' Circuit Low · **P2068** Fuel Level Sensor 'B' Circuit High

See it working

Watch the animated explainer [How a Car Clutch Works: Diaphragm Clutch Cutaway](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2066/>

