

GENERIC · POWERTRAIN

P0462

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0462

Fuel Level Sensor Circuit Low Input

P0462 means the engine computer has seen the fuel level sensor signal wire voltage stay lower than the expected range for a calibrated amount of time, so it cannot trust the dash gauge reading. The sensor itself is usually a float on a pivoting arm inside the tank that varies a resistance to ground, and a low input tells the computer the signal circuit is shorted to ground or the sensor resistance has dropped out of range.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Low	Intermediate	Auxiliary emission controls

Symptoms you may notice

- Fuel gauge reads empty or below empty at all times, even right after filling the tank
- Low fuel warning light illuminated continuously regardless of actual fuel level
- Often no symptoms besides the warning light, with the vehicle running and driving normally
- Fuel gauge needle may sit at empty and never move as fuel is consumed
- On some vehicles a remote start or fuel economy display that relies on level data stops working
- No drivability complaint in most cases because fuel delivery is not controlled by this sensor

Common causes, most likely first

- Fuel level sensor signal wire chafed or shorted to ground between the sensor and the computer
- Fuel level sensor float stuck at the bottom of its travel or saturated and sinking in the fuel
- Failed fuel level sensor sending unit with worn resistance tracks reading near zero ohms
- Corroded or pushed-back terminal in the fuel pump module connector allowing the signal to pull low
- Water or contamination in the fuel tank causing the sensor resistor card to short
- Damaged fuel pump module assembly where the sensor wiper arm has come off its pivot
- Rarely, an internal fault in the engine computer or body control module that processes the level signal



How to diagnose and fix it

- 1 Connect a scan tool and read the fuel level sensor voltage and percentage in live data while watching for a steady low reading
- 2 Inspect the fuel pump module connector and harness for corrosion, chafing, or a signal wire rubbed through to ground
- 3 Disconnect the sensor and measure resistance across the sensor terminals through its full sweep to confirm it tracks smoothly
- 4 Check the signal circuit for continuity to ground with the sensor unplugged to isolate a shorted wire from a failed sensor
- 5 Verify reference voltage and ground at the sensor connector with the key on to rule out a supply-side fault
- 6 Replace the fuel level sensor or fuel pump module assembly when resistance testing proves the sender is out of range
- 7 Clear the code and confirm the gauge reads correctly through a fill and drain cycle before returning the vehicle

What a low fuel level signal really means

- A fuel level sensor that reads low can be caused by a float that has absorbed fuel and sunk, which looks identical electrically to a shorted signal wire.
- Many vehicles set P0462 from a body control module or instrument cluster rather than the engine computer, so the module that stores the code is not always the one that needs repair.
- A chafed signal wire behind the rear seat or along the frame rail is a common miss because the connector at the tank tests fine while the harness short occurs further upstream.
- After replacing a fuel pump module, some vehicles require a fuel level relearn or gauge calibration with a scan tool or the new sender will read incorrectly and reset the code.
- This code does not indicate a fuel delivery problem, so chasing fuel pressure or injectors wastes time when the fault is purely in the level sensing circuit.

Can I keep driving with P0462?

The vehicle remains safe to drive because this circuit only feeds the fuel gauge and warning light, not fuel delivery or engine operation. Track your fuel purchases manually until it is repaired, because the low fuel warning may no longer alert you before the tank runs dry.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter with resistance and voltage ranges
- Fuel pump module connector pin removal tools
- Vehicle-specific wiring diagram
- Fuel tank lock ring wrench
- Safety glasses and fuel-resistant gloves



Reading P0462

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 4** Auxiliary emission controls.
- 62** The exact fault within that area.

Often seen with

P0451 Evaporative Emission System Pressure Sensor/Switch Range/Per Malfunction · **P0460** Fuel Level Sensor Circuit Malfunction · **P0461** Fuel Level Sensor Circuit Range/Performance · **P0463** Fuel Level Sensor Circuit High Input · **P0464** Fuel Level Sensor 'A' Circuit Intermittent

See it working

Watch the animated explainer [How the EVAP System Works: Fuel Vapour and Leak Test](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0462/>

