

GENERIC · POWERTRAIN

**P04C6**

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

## P04C6

# Fuel Fill Door Lock Position Sensor/Switch Circuit High

P04C6 indicates that the powertrain control module (PCM) has detected an abnormally high voltage on the fuel fill door lock position sensor circuit, which typically means the circuit is open, shorted to voltage, or the sensor's internal switch has failed. The PCM expects a specific voltage range that changes when the fuel door is locked or unlocked, and a high reading falls outside that expected range.

SYSTEM

**Powertrain**

CODE TYPE

**Generic (all makes)**

SEVERITY

**Low**

FIX DIFFICULTY

**Intermediate**

AREA

**Auxiliary emission controls**

## Symptoms you may notice

- The check engine light or service vehicle soon message illuminates on the dashboard.
- The fuel fill door may fail to lock or unlock with the central locking system, remaining stuck in one position.
- A warning message about the fuel door may appear on the driver information display.
- Remote or central locking functions may behave erratically when the fuel door is involved.
- Often no symptoms besides the warning light, especially if the door still latches mechanically.

## Common causes, most likely first

- 1 A broken, corroded, or disconnected wire in the fuel fill door lock position sensor circuit, causing an open circuit that the PCM reads as high voltage.
- 2 A faulty fuel fill door lock position sensor or switch that has failed internally and no longer provides the correct resistance or voltage signal.
- 3 Corrosion or water intrusion at the sensor connector or in the wiring harness near the fuel filler area, leading to high resistance or an open circuit.
- 4 A poor ground connection for the sensor circuit, which can cause the PCM to see an abnormally high signal voltage.
- 5 A short to voltage in the signal wire, often from chafed insulation against a power wire, which forces the circuit voltage high.
- 6 A malfunctioning fuel fill door lock actuator that binds and prevents the position sensor from moving through its full range, though this is less common.



## How to diagnose and fix it

- 1 Use a scan tool to read the fuel fill door lock position sensor data and confirm the high voltage reading while operating the door lock, then clear the code and verify it returns.
- 2 Visually inspect the sensor, connector, and wiring at the fuel fill door for corrosion, damage, or loose pins, and repair or replace damaged components as needed.
- 3 Disconnect the sensor and measure resistance across its terminals while moving the door lock mechanism; compare to the manufacturer's specification to determine if the sensor is faulty.
- 4 Check the signal wire for a short to voltage by measuring voltage at the sensor connector with the key on and the sensor disconnected; repair any short to a power wire.
- 5 Verify the ground circuit for the sensor by measuring resistance from the sensor ground terminal to a known good ground; repair any excessive resistance or open circuit.
- 6 If the sensor and wiring test good, substitute a known-good sensor or use a jumper wire to simulate the correct signal and see if the code clears, confirming a PCM issue only as a last resort.
- 7 After repairs, clear the diagnostic trouble codes (DTCs), cycle the fuel door lock several times, and verify the code does not return during a test drive.

## What the high voltage reading really means

- A high voltage code on a position sensor circuit almost always indicates an open circuit or a short to voltage, not a failed sensor, so inspect the wiring before replacing parts.
- The fuel fill door lock position sensor is often integrated into the door latch assembly, and a binding latch can cause the sensor to read out of range even when the sensor itself is good.
- Water and road debris can enter the fuel filler area and corrode the sensor connector, creating high resistance that mimics a faulty sensor.
- This code can be set by a loose or disconnected battery ground that affects the reference voltage for multiple sensors, so check main grounds if other codes are present.
- A scan tool that can read live sensor data is essential; guessing at the sensor without confirming the voltage signal often leads to unnecessary replacement.

## Can I keep driving with P04C6?

The vehicle remains safe to drive because the fuel fill door lock is a convenience and security feature, not a safety system. You can continue driving, but avoid forcing the fuel door open or closed if it is stuck, and have the fault diagnosed soon to prevent a possible no-start condition if the door cannot be opened for refueling.



## Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wire repair kit with crimp connectors and heat shrink
- Trim removal tools
- Electrical contact cleaner

## Reading P04C6

|           |                                                                      |
|-----------|----------------------------------------------------------------------|
| <b>P</b>  | Powertrain: engine, transmission and emissions.                      |
| <b>0</b>  | Generic (SAE) code: it means the same thing on every OBD-II vehicle. |
| <b>4</b>  | Auxiliary emission controls.                                         |
| <b>C6</b> | The exact fault within that area.                                    |

## Often seen with

**P04C5** Fuel Fill Door Lock Position Sensor/Switch Circuit Low · **P04C7** Fuel Fill Door Lock Position Sensor/Switch Circuit Intermitt · **P04C8** Fuel Fill Door Open Request Sensor/Switch Circuit · **U0140** Lost Communication With Instrument Panel Cluster

## See it working

Watch the animated explainer **V6 Engine Explained: 60° Bank and Firing Order** on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p04c6/>

