



P04BD

Fuel Fill Door Lock Control Circuit Low

P04BD means the fuel fill door lock control circuit is reporting a low-voltage condition, so the body control module sees a short to ground or an open circuit on the lock actuator's control wire. The computer commands the door to lock or unlock but detects voltage below the expected threshold on that circuit.

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

Symptoms you may notice

- The fuel fill door will not lock or unlock with the central locking system
- A warning light or message on the dash indicating a fuel door fault
- The fuel fill door may be stuck closed, preventing refueling
- The lock actuator may click repeatedly or not move at all
- Often no symptoms besides the warning light if the fault is intermittent

Common causes, most likely first

- 1 Damaged or corroded wiring harness at the fuel fill door hinge or actuator connector
- 2 Failed fuel fill door lock actuator solenoid
- 3 Blown fuse or poor ground connection for the lock circuit
- 4 Body control module (BCM) internal fault on the lock driver circuit
- 5 Water intrusion or road debris damaging the actuator or connector
- 6 Aftermarket alarm or remote start wiring tapped into the lock circuit

How to diagnose and fix it

- 1 Inspect the fuel fill door lock actuator connector and wiring for corrosion, chafing, or loose pins
- 2 Check the fuse and ground for the fuel fill door lock circuit with a multimeter
- 3 Measure voltage and resistance on the control wire at the actuator while commanding lock and unlock with a scan tool
- 4 Disconnect the actuator and check for a short to ground on the control wire; repair the harness if shorted
- 5 Test the actuator directly with 12 volts to confirm it moves freely and is not seized
- 6 If the circuit and actuator test good, check for BCM software updates or internal driver failure
- 7 Clear the code and verify the fuel fill door locks and unlocks correctly through several cycles



Why the fuel door lock code misleads

- A low-voltage code on this circuit often comes from a chafed wire at the door hinge rather than a failed actuator, so inspect the harness before replacing parts.
- The fuel fill door lock is tied into the central locking system, so a fault in a door lock switch or the BCM can set this code even when the fuel door actuator is fine.
- Water and road salt collect around the fuel filler area and corrode the actuator connector, causing intermittent low-voltage signals that only appear in wet weather.
- Aftermarket remote start or alarm installations frequently splice into the fuel door lock wire, creating a partial short that sets P04BD without any obvious damage.
- Some vehicles use a reversible motor for the fuel door lock, and a stalled motor can pull the control circuit low, mimicking a wiring short.

Can I keep driving with P04BD?

The vehicle remains safe to drive because the fuel fill door lock does not affect engine operation or safety systems. Avoid forcing the fuel door open if it is stuck, and plan to have the circuit inspected soon so you are not stranded at a fuel station.

Tools that help

- Scan tool with bidirectional control capability
- Digital multimeter
- Trim removal tools
- Wire repair kit with crimp connectors and heat shrink
- Test light

Reading P04BD

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

Often seen with

P04BE Fuel Fill Door Lock Control Circuit High · **P04BF** Fuel Fill Door Unlock Control Circuit/Open · **U0140** Lost Communication With Instrument Panel Cluster



See it working

Watch the animated explainer [Engine Cooling System Trainer: How Engines Stay Cool](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p04bd/>

