

GENERIC · BODY

B0502

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

B0502

Left Rear Power Window Circuit Malfunction

B0502 indicates that the body control module (BCM) has detected an electrical fault in the left rear power window circuit, which typically includes the motor, wiring, and switch. The BCM monitors current draw and switch inputs to determine if the window is operating correctly, and it sets this code when the circuit is open, shorted, or drawing abnormal current.

SYSTEM

Body

CODE TYPE

Generic (all makes)

SEVERITY

Low

FIX DIFFICULTY

Intermediate

AREA

Airbags, seats, doors, lights and comfort systems

Symptoms you may notice

- The left rear window may not move at all when the switch is pressed.
- The window may move slowly or intermittently, especially in cold weather.
- The window may operate from the master switch but not the local switch, or vice versa.
- A grinding or clicking noise may be heard from the door when the switch is activated.
- Often no symptoms besides the warning light, as the window may still function normally.
- The window may stop partway and refuse to move further in either direction.

Common causes, most likely first

- 1 Failed window motor or regulator assembly, often due to worn brushes or a stripped gear.
- 2 Broken or frayed wires in the door jamb boot, caused by repeated flexing over time.
- 3 Corroded or loose electrical connectors at the motor or switch.
- 4 Faulty window switch, either the local switch or the master switch on the driver's door.
- 5 Blown fuse or tripped circuit breaker dedicated to the left rear window circuit.
- 6 Binding window tracks or glass guides that overload the motor and trigger a current fault.
- 7 Water intrusion into the door causing corrosion or short circuits in the wiring or motor.



How to diagnose and fix it

- 1 Check the fuse and circuit breaker for the left rear window circuit and replace if blown.
- 2 Inspect the wiring harness in the door jamb boot for chafed or broken wires and repair as needed.
- 3 Test the window switch for continuity and proper operation, replacing it if faulty.
- 4 Measure voltage and ground at the window motor connector while operating the switch to confirm power and ground are present.
- 5 Apply direct battery power to the motor to verify it operates; if not, replace the motor or regulator assembly.
- 6 Lubricate the window tracks and guides to reduce drag and ensure smooth operation.
- 7 Clear the code and verify the repair by operating the window through several full cycles.

Before you replace the window motor

- A common misdiagnosis is replacing the window motor when the actual fault is a broken wire in the door jamb boot, which is easily overlooked during a quick inspection.
- The BCM may set this code if the window motor draws excessive current due to binding tracks, even though the motor itself is healthy.
- In some vehicles, the left rear window circuit is controlled by a relay in the BCM; a failed relay can mimic a bad motor or switch.
- After replacing a window motor or switch, the BCM may require a relearn procedure to recognize the new component and clear the code.
- Water leaks into the door often cause intermittent faults that only appear after rain or a car wash, so check for moisture damage.

Can I keep driving with B0502?

The vehicle remains safe to drive because the left rear window is not a safety-critical system, but avoid operating the window repeatedly if it is stuck or making noise to prevent further damage. Have the fault repaired at your convenience to restore full window function and prevent battery drain from a stuck motor.

Tools that help

- Digital multimeter
- Test light
- Trim removal tool
- Socket set
- Jumper wires with alligator clips
- Scan tool with body control module capability



Reading B0502

- B** Body: airbags, seats, doors, lights and comfort systems.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 5** Airbags, seats, doors, lights and comfort systems.
- 02** The exact fault within that area.

Often seen with

B0500 Driver Power Window Circuit Malfunction · **B0501** Passenger Power Window Circuit Malfunction · **B0503** Right Rear Power Window Circuit Malfunction

See it working

Watch the animated explainer [How a CVT Works: Belt and Pulley Transmission](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/b0502/>

