

GENERIC · BODY

B0710

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

B0710

Sunroof Position Sensor Circuit

B0710 indicates that the body control module (BCM) has detected a fault in the sunroof position sensor circuit, which is responsible for reporting the exact glass panel location to the controller. The computer compares the sensor signal against expected values and sets this code when the voltage or signal pattern falls outside the normal range.

SYSTEM

Body

CODE TYPE

Generic (all makes)

SEVERITY

Low

FIX DIFFICULTY

Intermediate

AREA

Airbags, seats, doors, lights and comfort systems

Symptoms you may notice

- Sunroof may not open, close, or stop at the requested position
- Sunroof may reverse direction unexpectedly during operation
- Sunroof may be inoperative from the switch
- Water leaks or wind noise due to improper sealing from a mispositioned panel
- Often no symptoms besides the warning light

Common causes, most likely first

- 1 Faulty sunroof position sensor (hall-effect or potentiometer type)
- 2 Damaged or disconnected wiring harness at the sunroof motor assembly
- 3 Corroded or loose electrical connector at the sensor or BCM
- 4 Failed sunroof motor/module assembly with integrated sensor
- 5 Mechanical binding or obstruction in the sunroof track causing implausible sensor readings
- 6 Water intrusion into the sunroof housing or connector
- 7 BCM internal fault or software issue (less common)



How to diagnose and fix it

- 1 Verify battery voltage and inspect the sunroof fuse; a weak battery can cause false position codes
- 2 Visually inspect the sunroof tracks and glass for obstructions, debris, or misalignment that could bind the mechanism
- 3 Disconnect the sunroof motor/sensor connector and check for corrosion, water intrusion, or loose pins
- 4 Backprobe the sensor signal wire at the motor connector and observe voltage while manually moving the sunroof (or using a scan tool to command movement) to confirm the sensor output changes smoothly
- 5 Check continuity and resistance of the sensor wiring between the motor and BCM, looking for opens or shorts
- 6 If the sensor signal is erratic or absent with good wiring, replace the sunroof motor/sensor assembly as a unit
- 7 After repair, clear the code and perform a sunroof normalization/calibration procedure with a scan tool if required by the manufacturer

Before you replace the sunroof motor

- A weak or failing battery is a common cause of false sunroof position codes because the BCM may lose its learned position when voltage drops during cranking.
- Many sunroof position sensors are integrated into the motor assembly and cannot be replaced separately, so testing the signal at the connector is critical before condemning the motor.
- Mechanical binding in the tracks can mimic a sensor failure by causing the motor to draw excess current and the sensor to report implausible positions; always inspect and lubricate the tracks first.
- After replacing the motor or sensor, a calibration or normalization procedure is often required, and skipping it will cause the code to return immediately.
- Water leaks from clogged sunroof drains can corrode the sensor connector and set this code without any obvious sunroof operation problem.

Can I keep driving with B0710?

The vehicle remains safe to drive because the sunroof is a comfort feature and does not affect steering, braking, or powertrain operation. Avoid operating the sunroof until repaired to prevent mechanical damage or water intrusion from a partially open panel.

Tools that help

- OBD-II scan tool with body control module (BCM) capability
- Digital multimeter (DMM)
- Trim removal tools
- Torx or hex bit set
- Manufacturer service information for sunroof calibration



Reading B0710

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

See it working

Watch the animated explainer [How a Coolant Temperature Sensor Works](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/b0710/>

