

GENERIC · BODY

B0231

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

B0231

Front Marker Lamp Circuit

B0231 indicates that the body control module (BCM) has detected an open circuit or excessive resistance in the front marker lamp circuit, meaning the lamp is not receiving the voltage or ground it needs to illuminate. The module monitors current flow through the circuit and sets this code when the expected load is missing, often due to a burned-out bulb, damaged wiring, or a faulty connection.

SYSTEM

Body

CODE TYPE

Generic (all makes)

SEVERITY

Low

FIX DIFFICULTY

Intermediate

AREA

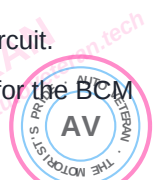
Airbags, seats, doors, lights and comfort systems

Symptoms you may notice

- The front marker lamp (parking light) on one or both sides fails to illuminate when the parking lights or headlights are switched on.
- A warning light on the dashboard, typically the service vehicle soon or a lamp-out indicator, may be illuminated.
- Often no symptoms besides the warning light, especially if the failed lamp is not immediately noticed by the driver.
- The turn signal may flash rapidly or behave erratically if the marker lamp shares a dual-filament bulb with the turn signal.
- Intermittent operation of the marker lamp, where it works sometimes and not others, often due to a loose connection or chafed wire.
- Other lamps in the same circuit, such as the rear marker or license plate lamp, may also be affected if the fault is upstream in a shared feed.

Common causes, most likely first

- 1 A burned-out or damaged front marker lamp bulb, which is the most common cause of an open circuit in this path.
- 2 Corroded, loose, or damaged bulb socket contacts that prevent proper electrical connection.
- 3 A broken, chafed, or corroded wire in the front marker lamp circuit, often near the lamp assembly or where the harness flexes.
- 4 A faulty ground connection for the marker lamp, leading to an open ground circuit that the BCM interprets as an open load.
- 5 A failed body control module (BCM) output driver, though this is less common and should only be suspected after all other possibilities are ruled out.
- 6 Water intrusion into the lamp housing or connector, causing corrosion and high resistance in the circuit.
- 7 Aftermarket or incorrect bulb installation, such as an LED replacement that draws too little current for the BCM to detect, triggering a false open-circuit code.



How to diagnose and fix it

- 1 Verify the complaint by turning on the parking lights and checking the operation of the front marker lamp on both sides, then inspect the bulb for a broken filament or darkening.
- 2 Replace the bulb with the correct type and rating, then clear the code and recheck operation to see if the fault returns.
- 3 Inspect the bulb socket and connector for corrosion, loose terminals, or signs of overheating, and clean or repair as needed.
- 4 Check the ground circuit for the lamp using a multimeter or test light, confirming less than 0.5 volts drop on the ground side under load.
- 5 Perform a voltage drop test on the power feed from the BCM to the lamp to identify any high-resistance wiring or connectors, repairing or replacing damaged sections.
- 6 If the circuit tests good but the code persists, check for technical service bulletins (TSBs) or software updates for the BCM that may address false lamp-out detection.
- 7 As a last resort, substitute a known-good BCM or perform a factory scan tool actuation test to confirm the module's output driver is functioning correctly before replacement.

Don't replace the BCM before checking these

- A common misdiagnosis is replacing the body control module when the real problem is a poor ground or a corroded socket that creates enough resistance to set the code without visibly affecting lamp brightness.
- LED replacement bulbs often draw far less current than the original incandescent bulbs, and many BCMs interpret this low current as an open circuit, setting B0231 even though the lamp works perfectly.
- The front marker lamp circuit often shares a ground point with other lamps or sensors, so a single corroded ground can set multiple codes that appear unrelated at first glance.
- Intermittent B0231 codes that appear only in wet weather usually point to water intrusion in the lamp housing or a chafed wire that shorts only when the harness is wet.
- Some vehicles use a pulsed width modulation (PWM) signal to drive the marker lamps, and a standard test light may not provide enough load to trigger the circuit properly during diagnosis, leading to false conclusions.

Can I keep driving with B0231?

It is generally safe to continue driving with B0231 because the front marker lamp is not a critical safety system, but you should be aware that the vehicle may not be fully compliant with lighting regulations. Avoid driving at night or in low-visibility conditions until the lamp is repaired, as reduced visibility can increase the risk of an accident.



Tools that help

- OBD-II scan tool with body control module capability
- Digital multimeter
- Test light
- Socket set and trim removal tools
- Factory service information or wiring diagrams

Reading B0231

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

Often seen with

B0233 Rear Tail Lamp Circuit · **B0235** Brake Lamp Circuit

See it working

Watch the animated explainer [How the PCV System Works: Crankcase Ventilation](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/b0231/>

