

GENERIC · BODY

B0420

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

B0420

Audio System Internal Failure

B0420 indicates that the vehicle's audio system control module has detected an internal hardware or software failure within its own circuitry. The module sets this code when its self-diagnostics identify a fault that prevents reliable operation of the radio, amplifier, or associated audio functions.

SYSTEM Body	CODE TYPE Generic (all makes)	SEVERITY Low	FIX DIFFICULTY Intermediate	AREA Airbags, seats, doors, lights and comfort systems
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Symptoms you may notice

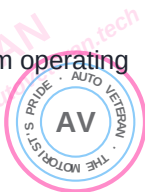
- The radio may not power on at all or may turn on intermittently
- Audio output may be distorted, crackling, or completely absent from some or all speakers
- The infotainment screen may freeze, reboot repeatedly, or display an error message
- Steering wheel audio controls or other button inputs may stop responding
- Often no symptoms besides the warning light, with the audio system appearing to work normally

Common causes, most likely first

- 1 Internal failure of the audio system control module (radio head unit or amplifier)
- 2 Corroded or loose electrical connectors at the audio module
- 3 Low battery voltage or poor ground connection causing the module to malfunction
- 4 Water intrusion or physical damage to the audio module circuit board
- 5 Software corruption or failed firmware update in the audio module
- 6 Faulty power or ground supply to the audio module due to a blown fuse or damaged wiring

How to diagnose and fix it

- 1 Verify battery voltage and condition, and check the audio system fuses and relays
- 2 Inspect and clean the electrical connectors at the audio module for corrosion or looseness
- 3 Check the ground connection for the audio module and ensure it is clean and tight
- 4 Perform a battery disconnect reset (capacitive discharge) to clear temporary module faults
- 5 Use a scan tool to retrieve all codes and perform any available audio module self-tests or recalibration
- 6 If the code persists, replace the audio system control module with a known-good unit and reprogram if required
- 7 After repair, clear the code and verify that it does not return during a test drive with the audio system operating



What the audio module self-test really reveals

- A B0420 code often appears after a dead battery or jump start, when voltage spikes confuse the audio module's self-check; clearing the code may be all that is needed.
- Many audio modules set this code for intermittent internal faults that do not affect sound quality, so replacing the unit without confirming the fault can be an expensive misdiagnosis.
- Corroded connectors at the back of the radio are a frequent cause that technicians overlook when they focus solely on the module itself.
- The code can be stored by a separate amplifier module rather than the radio head unit, so always check which module reports the fault before ordering parts.
- After replacing the audio module, some vehicles require anti-theft or VIN programming, and skipping this step can leave the new unit inoperable.

Can I keep driving with B0420?

The vehicle remains safe to drive because the fault is confined to the audio system and does not affect engine, braking, or steering controls. You can continue driving, but avoid relying on audio alerts or navigation prompts until the fault is repaired.

Tools that help

- OBD-II scan tool with audio system capability
- Digital multimeter
- Trim removal tools
- Contact cleaner and dielectric grease
- Basic socket and screwdriver set

Reading B0420

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

Often seen with

U0184 Lost Communication With Radio · **U0185** Lost Communication With Antenna Control Module



See it working

Watch the animated explainer [How Airbags Work: A 50 km/h Crash in Slow Motion](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/b0420/>

