

GENERIC · NETWORK

U0546

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U0546

Invalid Data Received From Entertainment Control Module - Front

U0546 is a communication fault where a control module on the vehicle's network receives data from the front entertainment control module that it considers invalid or corrupted. The receiving module detects that the messages are present but fail its internal plausibility or checksum validation, so it stores this code and may disable certain infotainment functions.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Network	Generic (all makes)	Low	Intermediate	Network communication

Symptoms you may notice

- The infotainment screen may freeze, go blank, or show garbled graphics.
- Audio may cut out, crackle, or fail to play from certain sources.
- Touch controls or physical buttons for the front entertainment system may become unresponsive.
- The radio may reset or reboot intermittently while driving.
- Often no symptoms besides the warning light, especially if the fault is intermittent.
- Other modules may log communication codes if the entertainment module disrupts the network.

Common causes, most likely first

- Corroded, loose, or damaged wiring at the front entertainment control module connector.
- A failing front entertainment control module due to internal electronic faults or water intrusion.
- Low battery voltage or a weak charging system causing modules to send corrupted data.
- A faulty network communication line (CAN, MOST, or LIN bus) with high resistance or shorts.
- Software glitches or outdated firmware in the entertainment module or receiving module.
- Aftermarket accessories improperly wired into the infotainment system causing signal interference.



How to diagnose and fix it

- 1 Perform a battery and charging system test to rule out low voltage as the root cause.
- 2 Use a scan tool to read all modules and record any related communication codes for context.
- 3 Visually inspect the front entertainment control module connectors and wiring for corrosion, pin damage, or loose terminals.
- 4 Check the communication bus wiring for continuity, shorts to ground, and shorts to power using a multimeter.
- 5 If wiring is intact, substitute a known-good front entertainment control module to see if the code clears.
- 6 Update the entertainment module software if the manufacturer has a known calibration for this fault.
- 7 Clear the code and perform a road test to confirm the repair, monitoring live data for invalid message counters.

Why the entertainment module sends invalid data

- A weak or failing battery is a common hidden cause; modules may power up but send corrupted data frames that trigger U0546 without any obvious starting issue.
- Aftermarket radio installations or phone integration kits often tap into the entertainment bus and introduce signal noise that the receiving module interprets as invalid data.
- The code can be set by a module that is otherwise functioning perfectly, so replacing the entertainment module without checking power and ground first is a costly misdiagnosis.
- Water intrusion into the front entertainment module, often from a clogged sunroof drain or windshield leak, causes intermittent invalid data that may not appear during a quick shop visit.
- Some vehicles require a specific wake-up sequence or ignition cycle for the entertainment module to initialize; a module that is slow to boot can send invalid data only during the first few seconds after startup.

Can I keep driving with U0546?

The vehicle remains safe to drive because the fault affects infotainment functions rather than steering, braking, or airbags. Avoid relying on the entertainment system for navigation or backup camera images until the fault is repaired, and address any battery or charging issues promptly to prevent further module communication problems.

Tools that help

- OBD-II scan tool with module-level communication capability
- Digital multimeter
- Battery tester and charging system analyzer
- Wiring diagram for the entertainment and communication networks
- Trim removal tools for accessing the front entertainment control module



Reading U0546

- U** Network: communication between the vehicle's control modules.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 5** Network communication.
- 46** The exact fault within that area.

Often seen with

U0155 Lost Communication With Body Control Module · **U0164** Lost Communication With HVAC Control Module
 · **U0184** Lost Communication With Radio · **U0545** Invalid Data Received From Running Board Control Module
 A · **U0547** Invalid Data Received From Seat Control Module E

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/u0546/>

