

GENERIC · NETWORK

U0171

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U0171

Lost Communication With 'Restraints System Sensor B'

U0171 is a generic network communication code indicating that a control module on the vehicle's Controller Area Network (CAN) bus has lost contact with the restraints system sensor B, which is typically a side impact and occupant detection sensor. The module that sets this code has detected that the expected periodic messages from that sensor have stopped arriving within the required time window, so it flags a communication fault rather than a direct sensor performance problem.

SYSTEM Network	CODE TYPE Generic (all makes)	SEVERITY Medium	FIX DIFFICULTY Professional	AREA Lost communication with a control module
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Symptoms you may notice

- The supplemental restraint system (SRS) warning light stays illuminated on the dashboard.
- A message such as 'Service Restraint System' or 'Airbag Fault' appears in the driver information center.
- The airbag system may be disabled or default to a reduced deployment strategy, though the vehicle usually remains driveable.
- Often no symptoms besides the warning light, because the fault is a communication loss rather than a crash event.
- In some vehicles, other unrelated warning lights may appear if the lost sensor shares a bus segment with other modules.
- Intermittent warning light operation if the communication loss is caused by a loose connector or chafed wire.

Common causes, most likely first

- A faulty restraints system sensor B that has stopped transmitting on the bus.
- Damaged, corroded, or loose wiring and connectors between the sensor and the module or bus splice point.
- A shorted or open CAN bus line on the segment that serves the restraints sensor, often from water intrusion or chafing.
- Low battery voltage or a weak battery that causes modules to drop offline intermittently.
- A failed or failing control module that hosts the bus communication for the restraints system.
- Aftermarket accessories or improper electrical repairs that disturb the bus wiring or introduce interference.
- A sensor that is correctly installed but has an internal electronic failure preventing it from communicating.



How to diagnose and fix it

- 1 Verify battery state of charge and perform a voltage drop test on the battery and charging system before anything else.
- 2 Use a scan tool to read all modules and record which modules are online and which are missing from the bus.
- 3 Inspect the restraints system sensor B connector and the harness for corrosion, loose pins, or chafed wires, and repair as needed.
- 4 Check the CAN bus resistance and voltage at the diagnostic link connector to confirm bus integrity and isolate the faulty segment.
- 5 If the sensor is accessible, substitute a known-good sensor of the same part type to see if communication returns.
- 6 Perform a wiggle test on the harness while watching live data for the sensor to catch intermittent connection faults.
- 7 If wiring and sensor are good, diagnose the control module that sets the code for internal bus communication failure.

What most technicians miss on U0171

- A restraints system sensor B that fails to communicate does not always mean the sensor itself is bad; a single corroded pin in an intermediate connector can take the whole segment down.
- This code is often set by a low voltage event such as a battery that was drained or jump-started, and it may clear permanently after the battery is charged and the codes are cleared.
- Some vehicles use a serial data bus for restraints sensors that is separate from the main CAN bus, so a fault in the main bus may not be the cause even though the code is a U-code.
- Aftermarket seat covers, phone chargers, or alarm installations that tap into the restraints wiring can introduce noise or a short that mimics a failed sensor.
- A sensor that communicates but reports implausible data will set a different code; U0171 specifically means the messages are missing, not that the data is wrong.

Can I keep driving with U0171?

The vehicle is generally safe to drive because the restraint system defaults to a fail-safe mode, but the airbag may not deploy correctly in a crash, so have it diagnosed promptly and avoid any hard impacts or off-road driving until repaired.

Tools that help

- OBD-II scan tool with bidirectional control and live data capability
- Digital multimeter with min/max recording
- CAN bus breakout box or back-probe kit
- Wiring diagram and connector pinout for the restraints system
- Battery load tester and charging system tester



Reading U0171

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

Often seen with

U0151 Lost Communication With Restraints Control Module · **U0154** Lost Communication With Restraints Occupant Sensing Control · **U0170** Lost Communication With 'Restraints System Sensor A' · **U0172** Lost Communication With 'Restraints System Sensor C' · **U3000** 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/u0171/>

