

GENERIC · NETWORK

U047C

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U047C

Invalid Data Received From Restraints System Sensor L

U047C is a generic communication fault indicating that a module on the controller area network (CAN) bus received invalid or corrupted data from the restraints system sensor designated as 'L'. The computer detected a message from that sensor that failed its internal plausibility or checksum validation, so it flagged the data as untrustworthy rather than treating it as a valid reading.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Network	Generic (all makes)	Medium	Professional	Invalid data received from a module

Symptoms you may notice

- The supplemental restraint system (SRS) warning light is illuminated on the dashboard.
- The airbag or seatbelt pretensioner system may be disabled as a fail-safe, though the vehicle often drives normally.
- A message such as 'Service Restraint System' or 'Airbag Fault' may appear in the driver information center.
- In some vehicles, other modules that share the same CAN bus may log communication codes or show intermittent electrical glitches.
- Often no symptoms besides the warning light, especially if the fault is intermittent and the sensor data is only occasionally invalid.

Common causes, most likely first

- A failing restraints system sensor 'L' that intermittently outputs out-of-range or corrupted data.
- Damaged or chafed wiring between the sensor and its control module, causing signal interference or voltage drops.
- Corroded or loose electrical connectors at the sensor or at the restraints control module, leading to intermittent data corruption.
- A software or calibration issue in the restraints control module that misinterprets valid sensor data as invalid.
- Low system voltage or a weak battery that causes modules to reboot or transmit malformed CAN messages.
- A faulty restraints control module that cannot properly validate incoming sensor messages.
- Aftermarket electronic accessories improperly wired into the CAN bus, introducing noise or invalid data frames.



How to diagnose and fix it

- 1 Connect a scan tool and read all stored codes in every module, then record freeze-frame data for U047C to see the conditions when it set.
- 2 Inspect the battery, charging system, and ground connections to rule out low voltage as a cause of corrupted CAN messages.
- 3 Locate the restraints system sensor 'L' using the vehicle-specific service information, then inspect its connector and wiring for corrosion, chafing, or loose pins.
- 4 Perform a wiggle test on the sensor harness while watching live data for the sensor to see if invalid data appears intermittently.
- 5 Check for technical service bulletins (TSBs) or software updates for the restraints control module that address false invalid-data codes.
- 6 If wiring and voltage are good, substitute a known-good sensor of the same part number and clear the code to see if it returns.
- 7 As a last step, diagnose or replace the restraints control module only after confirming the sensor and harness are fault-free.

What most technicians overlook on U047C

- A weak battery or failing alternator can cause multiple modules to transmit corrupted CAN frames, so always verify charging system health before condemning the sensor.
- The code names sensor 'L', but on some platforms that label refers to a specific sensor within a multi-sensor restraints array, and swapping sensors without confirming the location wastes time.
- U047C can be set by a loose aftermarket accessory plugged into the OBD-II port or wired into the CAN bus, so ask about recent electrical additions.
- The restraints control module may store U047C as a history code long after an intermittent fault has cleared, so clear it and verify it does not return before replacing parts.
- A sensor that passes a static resistance test can still produce invalid data under vibration or temperature change, making a live-data road test more valuable than a bench check.

Can I keep driving with U047C?

The vehicle is generally safe to drive because the restraints system defaults to a fail-safe mode, but the airbags and pretensioners may not deploy in a crash. Avoid rough roads and electrical system stress until the fault is repaired, and have the system diagnosed promptly.



Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter with min/max recording
- Vehicle-specific service information for sensor location and wiring diagrams
- Battery load tester and charging system analyzer
- Terminal pick and electrical contact cleaner
- Oscilloscope for CAN bus signal integrity checks

Reading U047C

U	Network: communication between the vehicle's control modules.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
4	Invalid data received from a module.
7C	The exact fault within that area.

Often seen with

B0001 Driver Frontal Stage 1 Deployment Control Circuit · **U0151** Lost Communication With Restraints Control Module · **U047B** Invalid Data Received From Restraints System Sensor K · **U047D** Invalid Data Received From Restraints System Sensor M · **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/u047c/>

