

GENERIC · NETWORK

U0023

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U0023

Low Speed CAN Communication Bus (+) High

U0023 means the controller area network (CAN) data bus is reporting a short to voltage on the CAN positive (CAN+) wire, so the modules cannot exchange messages reliably. The computer detects an abnormally high voltage on the CAN+ line when it should be near 2.5 volts during normal communication.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Network	Generic (all makes)	High	Professional	Network wiring and bus faults

Symptoms you may notice

- Multiple warning lights on the dashboard, often including the check engine light, ABS, and airbag lights
- The engine may start but run poorly or stall, or the vehicle may not start at all
- Intermittent operation of electrical accessories such as windows, locks, or radio
- The transmission may default to limp mode or fail to shift
- Often no symptoms besides the warning light if the fault is intermittent

Common causes, most likely first

- 1 A short to battery voltage in the CAN+ wiring harness, often from chafed insulation against a power wire
- 2 A faulty module on the CAN bus that is internally shorting the CAN+ line to voltage
- 3 Corroded or damaged connector pins at any module on the bus, allowing voltage to bleed onto CAN+
- 4 Water intrusion into a connector or module causing a conductive path to a power circuit
- 5 Aftermarket accessories improperly tapped into the CAN wiring or a nearby power wire
- 6 A defective CAN transceiver inside one of the modules on the network



How to diagnose and fix it

- 1 Use a scan tool to read all stored codes and identify which modules are communicating and which are not
- 2 Measure resistance between CAN+ and CAN- with the battery disconnected; a reading far from 60 ohms indicates a wiring or module fault
- 3 With the key on, measure voltage on CAN+ at the data link connector (DLC); it should be near 2.5 volts, and a reading near battery voltage confirms a short to power
- 4 Disconnect modules one at a time to see if the high voltage on CAN+ disappears, isolating the faulty module or wiring section
- 5 Inspect the harness along its routing for chafing, especially near sharp edges, heat sources, and aftermarket installations
- 6 Repair any damaged wire, replace corroded terminals, and reseal connectors to prevent water intrusion
- 7 Clear codes and perform a road test to verify the repair and ensure all modules communicate normally

Before you replace a module for U0023

- A short to voltage on CAN+ is often caused by a pinched wire behind the dashboard or near the kick panel, not by a failed module, so always inspect the harness first.
- Aftermarket alarms, remote starters, or phone chargers spliced into the CAN wiring are a frequent source of this code because they can backfeed voltage onto the bus.
- Disconnecting the battery may temporarily clear the code, but the fault will return if the short is still present, so do not assume the problem is fixed.
- Some modules will set U0023 as a secondary code when another module on the bus is shorted, so the module reporting the code is not always the one at fault.
- A voltage reading above 3.5 volts on CAN+ with the key on is a strong indicator of a short to power, while a normal reading is about 2.5 volts.

Can I keep driving with U0023?

Do not drive the vehicle with an active U0023 because the loss of reliable CAN communication can disable safety systems and cause unpredictable behavior. If the code is intermittent and the vehicle runs normally, drive only to a repair shop at low speed and avoid highways.

Tools that help

- OBD-II scan tool with live data and module communication capabilities
- Digital multimeter with voltage and resistance measurement
- Wiring diagram for the vehicle's CAN bus
- Terminal pick and wire repair kit
- Battery disconnect tool



Reading U0023

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

Often seen with

U0001 Loss of Bus Communication · **U0002** High Speed CAN Communication Bus (Performance) · **U0024** Low Speed CAN Communication Bus (-) Open · **U0100** Lost Communication With ECM/PCM A · **U0140** Lost Communication With Instrument Panel Cluster

See it working

Watch the animated explainer [Master the Four-Stroke Engine Cycle](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u0023/>

