

GENERIC · NETWORK

U0002

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U0002

High Speed CAN Communication Bus (Performance)

U0002 indicates that the high-speed Controller Area Network (CAN) communication bus is not performing as expected, meaning the modules that share data over this network are not exchanging messages reliably. The computer has detected a general performance fault on the bus itself, such as an intermittent short, excessive voltage swing, or termination issue, rather than a specific module failure.

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 illuminated simultaneously, including the check engine light, ABS, and airbag lights
- The engine may start but run poorly or stall intermittently due to lost communication between the engine and transmission modules
- Inoperative accessories such as the radio, power windows, or climate control that rely on CAN bus data
- A no-start condition if the bus fault prevents the engine control module from receiving critical signals
- Often no symptoms besides the warning light if the fault is intermittent and the bus recovers quickly

Common causes, most likely first

- Damaged or chafed CAN bus wiring, especially at flex points or near sharp edges
- Corroded or loose connectors at any module on the high-speed CAN network
- A failed or improperly installed CAN bus termination resistor, usually internal to a module
- A module on the bus that is internally shorted and pulling the bus voltage out of specification
- Aftermarket electronics improperly tapped into the CAN wiring, causing signal interference
- Water intrusion into a connector or module, leading to intermittent shorts
- A faulty ground connection shared by multiple modules on the network



How to diagnose and fix it

- 1 Perform a visual inspection of all accessible CAN bus wiring and connectors for damage, corrosion, or loose pins
- 2 Use a scan tool to read all modules and record which modules are communicating and which are not
- 3 Measure the CAN bus voltage with a digital multimeter at the diagnostic link connector (DLC) with the ignition on, checking for proper bias voltage
- 4 Check the resistance across the CAN bus at the DLC with the battery disconnected, looking for approximately 60 ohms
- 5 Disconnect modules one at a time to see if the bus performance improves, isolating a faulty module
- 6 Inspect and test the CAN bus termination resistors, which are often internal to the engine control module or body control module
- 7 Repair or replace any damaged wiring, connectors, or modules found during diagnosis, then clear the code and verify the repair

What most technicians miss on U0002

- A common cause of U0002 that is often overlooked is an aftermarket device such as a remote starter or alarm system that has been spliced into the CAN bus wiring, disrupting signal integrity.
- The code can be set by a module that is not completely dead but is intermittently pulling the bus voltage low, so disconnecting modules one at a time while monitoring bus voltage is more effective than simply replacing the first module that fails to communicate.
- U0002 does not always mean the bus wiring is faulty; a weak battery or charging system issue can cause modules to drop off the bus intermittently, setting this code without any physical wiring damage.
- On some vehicles, the CAN bus termination resistors are part of the instrument cluster or the engine control module, and a failure there can mimic a wiring fault, so resistance testing at the DLC is a critical first step.
- Intermittent U0002 codes that appear only in cold or wet weather often point to a connector with poor pin tension or water intrusion that a static visual inspection will not reveal.

Can I keep driving with U0002?

If the warning light is on and the vehicle runs normally, you can drive it cautiously to a repair shop, but avoid long trips or high-speed driving. If the engine stalls, runs poorly, or multiple systems fail, stop driving and have the vehicle towed, as the bus fault can disable critical safety and powertrain functions without warning.

Tools that help

- OBD-II scan tool with CAN bus capability
- Digital multimeter
- Oscilloscope for CAN bus signal analysis
- Wiring diagram for the specific vehicle
- Termination resistor test kit or breakout box



Reading U0002

- 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.
- 02** The exact fault within that area.

Often seen with

U0001 Loss of Bus Communication · **U0003** High Speed CAN Communication Bus (+) Open · **U0100** Lost Communication With ECM/PCM A · **U0121** Lost Communication With Anti-Lock Brake System (ABS) Control · **U0140** Lost Communication With Instrument Panel Cluster

See it working

Watch the animated explainer [How a Fuel Injector Works: Pulse Width and Spray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u0002/>

