

GENERIC · NETWORK

U0003

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U0003

High Speed CAN Communication Bus (+) Open

U0003 indicates that the high-speed Controller Area Network (CAN) communication bus positive circuit is open, meaning the vehicle's main modules cannot exchange data over that wire. The computer detects an open circuit when it sees no voltage or an abnormal signal on the CAN+ line, which is normally a differential pair used for high-speed data transfer.

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 on the dashboard, often including the check engine light, ABS, and airbag lights
- The engine may start but run poorly or not start at all if the powertrain control module cannot communicate with other modules
- Intermittent or complete failure of dashboard gauges, such as the speedometer and tachometer
- Non-functional accessories like power windows, radio, or climate control if they rely on CAN bus communication
- The transmission may default to limp mode or fail to shift properly
- Often no symptoms besides the warning light if the open is on a non-critical branch of the bus

Common causes, most likely first

- Broken or chafed wire in the CAN+ circuit, often due to flexing, corrosion, or rodent damage
- Loose or corroded connector pins at a module or inline harness connector
- Failed module that internally opens the CAN+ circuit, disrupting the entire bus
- Damaged or improperly installed aftermarket electronics tapping into the CAN bus
- Water intrusion into a connector or module causing corrosion and an open circuit
- A faulty termination resistor in a module that creates an open on the bus



How to diagnose and fix it

- 1 Perform a visual inspection of the CAN bus wiring and connectors for obvious damage, corrosion, or loose pins
- 2 Use a scan tool to check for communication with all modules and identify which modules are not responding
- 3 Measure resistance between CAN+ and CAN- at the diagnostic link connector (DLC) with the battery disconnected; a reading around 60 ohms indicates proper termination, while an open circuit will show a higher or infinite resistance
- 4 Disconnect modules one by one to see if the bus resistance returns to normal, isolating the faulty module or branch
- 5 Check for continuity and voltage on the CAN+ wire from the DLC to each module, looking for breaks or shorts
- 6 Repair or replace damaged wiring, connectors, or the faulty module as needed
- 7 Clear the code and verify communication is restored on all modules

CAN bus open circuits often hide in plain sight

- A common mistake is to replace the powertrain control module first, but the open is often in a connector or wire that costs far less to fix.
- The CAN bus is a differential pair, so a problem on CAN+ can sometimes be caused by a short or open on CAN- as well, so always check both lines.
- Aftermarket alarms, remote starters, or stereo installations that splice into the CAN bus are frequent culprits for U0003, especially if the code appeared after the installation.
- Some modules can pull down the entire bus if they fail internally, so disconnecting modules one at a time is a reliable diagnostic strategy.
- U0003 can be set by a low battery or poor ground connection, so always verify battery voltage and ground integrity before chasing wiring.

Can I keep driving with U0003?

If the vehicle starts and runs, you may be able to drive it to a repair shop, but avoid long trips and be prepared for the engine to stall or the transmission to act unpredictably. If the engine does not start or multiple critical systems are disabled, do not drive and have the vehicle towed.

Tools that help

- OBD-II scan tool with live data and module communication capabilities
- Digital multimeter with resistance and voltage measurement
- Wiring diagram for the specific vehicle
- Terminal test kit and wire repair tools
- CAN bus breakout box or adapter for easier testing at the DLC



Reading U0003

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

Often seen with

U0001 Loss of Bus Communication · **U0002** High Speed CAN Communication Bus (Performance) · **U0004** High Speed CAN Communication Bus (+) Low · **U0100** Lost Communication With ECM/PCM A · **U0121** Lost Communication With Anti-Lock Brake System (ABS) Control

See it working

Watch the animated explainer [How a Catalytic Converter Works: 3D Cutaway](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u0003/>

