

GENERIC · NETWORK

U0013

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U0013

Medium Speed CAN Communication Bus (+) Low

U0013 means the medium-speed Controller Area Network (CAN) data bus has a short to ground or low voltage on its positive signal line, so the modules on that bus cannot exchange messages reliably. The computer detected the CAN+ voltage sitting below its expected idle or dominant level for longer than allowed, which typically points to a wiring fault rather than a failed module.

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

Symptoms you may notice

- Often no symptoms besides the warning light, especially if the fault is intermittent
- Multiple unrelated warning lights or messages on the dashboard because several modules share the bus
- Intermittent operation of accessories such as power windows, climate control, or the radio
- The engine may start and run normally, or the vehicle may fail to crank if the affected bus carries start-authorization messages
- A no-start or stall condition when the short pulls the bus down during a critical message
- Modules that drop offline and reappear, causing flickering or delayed gauge readings

Common causes, most likely first

- 1 Chafed or pinched CAN+ wire shorting to ground or to a nearby power wire
- 2 Corroded or water-intruded connector pins on a medium-speed bus module
- 3 A failed module internally shorting the CAN+ line low and dragging down the whole bus
- 4 Loose or damaged ground connection at a module on the affected bus
- 5 Aftermarket accessory wiring tapped into the bus harness incorrectly
- 6 Rodent damage or collision repair damage to the harness
- 7 A defective terminating resistor or splice pack on the medium-speed bus



How to diagnose and fix it

- 1 Scan all modules and record every communication-related code to map which modules are on the affected bus
- 2 Inspect the medium-speed CAN wiring harness for chafing, pinches, corrosion, and aftermarket taps
- 3 Measure CAN+ voltage at the diagnostic connector with the key on and compare it to the expected idle level
- 4 Disconnect modules one at a time to see whether the short clears, isolating a failed module
- 5 Check resistance across the CAN+ and CAN- lines to verify terminating resistors and bus integrity
- 6 Repair or replace the damaged wire section and reseal the connector
- 7 Clear codes and perform a road test to confirm the bus stays stable under vibration and load

Why a low CAN+ line is rarely a module

- A shorted module is the least common cause; most U0013 faults trace back to a rubbed wire or a corroded connector pin that only acts up in damp weather.
- The code can set intermittently from a momentary short during a bump, so a clean scan after clearing does not prove the fault is gone.
- Medium-speed CAN often carries body and comfort modules, so a fault here can disable door locks or climate control without affecting engine operation.
- Aftermarket alarms, remote starters, and trailer wiring are frequent culprits because installers splice into the bus harness.
- Do not replace a module based on this code alone; verify the bus voltage with the module disconnected before condemning it.

Can I keep driving with U0013?

The vehicle may be safe to drive short distances if it starts and runs normally, but avoid relying on it for long trips because the fault can worsen and disable multiple systems at once. If the engine cranks but does not start, or warning lights cascade, stop driving and have the bus diagnosed.

Tools that help

- OBD-II scan tool with CAN bus monitoring capability
- Digital multimeter with min/max recording
- Oscilloscope for viewing CAN+ and CAN- waveforms
- Wiring diagram for the affected medium-speed bus
- Back probe pins and a breakout box for connector testing



Reading U0013

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

Often seen with

U0001 Loss of Bus Communication · **U0012** Medium Speed CAN Communication Bus (+) Open · **U0014** Medium Speed CAN Communication Bus (+) High · **U0015** Medium Speed CAN Communication Bus (-) Open · **U0100** Lost Communication With ECM/PCM A

See it working

Watch the animated explainer [How a Manual Transmission Works: Four-Speed Cutaway](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u0013/>

