

GENERIC · NETWORK

U0031

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U0031

Vehicle Communication Bus A (+) Low

U0031 means the vehicle's main communication network, known as Bus A, has a positive voltage line that is reading lower than the manufacturer's expected threshold. The control modules that share this bus have detected a short-to-ground or excessive voltage drop on the Bus A (+) circuit, so they can no longer reliably exchange data.

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 at once, often including the check engine light, ABS, and airbag lamps
- The engine may crank but fail to start, or start and run poorly because modules cannot share data
- Intermittent or complete failure of the instrument cluster, radio, or climate controls
- A no-start condition where the scan tool cannot communicate with any module on Bus A
- Erratic transmission shifting or a default limp-home mode
- Often no symptoms besides the warning light when the fault is intermittent

Common causes, most likely first

- A chafed or pinched Bus A (+) wire shorting to ground against the chassis or engine block
- Corrosion or water intrusion in a connector on the Bus A circuit, creating a partial short
- A failed control module on Bus A that is internally shorting the positive line to ground
- A loose or damaged ground connection shared by modules on the bus, causing a voltage drop
- Aftermarket accessories or alarm wiring tapped incorrectly into the Bus A (+) circuit
- A damaged wiring harness from rodent chewing or prior collision repair



How to diagnose and fix it

- 1 Connect a scan tool and record which modules can and cannot communicate to map the extent of the Bus A failure
- 2 Measure voltage on the Bus A (+) wire at the diagnostic link connector (DLC) with the key on and compare to the manufacturer's specification
- 3 Inspect the DLC pins and nearby harness for corrosion, pushed terminals, or loose wires
- 4 Disconnect modules one at a time from Bus A and recheck voltage to isolate a module that is shorting the line
- 5 Perform a resistance and continuity test on the Bus A (+) wire from the DLC to each module, looking for a short to ground
- 6 Repair or replace the damaged section of harness, connector, or faulty module found during isolation
- 7 Clear the code and verify that all modules communicate and the code does not return after a road test

What Bus A voltage tests really reveal

- A low Bus A (+) reading is frequently caused by a single module holding the line down, so unplugging modules one by one is faster than chasing the whole harness.
- The code does not always mean the wiring is damaged; a weak battery or bad ground can pull bus voltage below threshold and set U0031 without any short circuit.
- Aftermarket remote starters and alarm systems are a common hidden cause because installers sometimes tap the wrong wire on the communication bus.
- Some vehicles set U0031 when a module on the bus loses power or ground, not just when the data line itself is shorted, so check module power feeds before condemning the harness.
- A scan tool that cannot communicate at all on Bus A points to a short near the DLC or a dead module, while intermittent communication points to a chafed wire that moves with the vehicle.

Can I keep driving with U0031?

Do not drive the vehicle when U0031 is active, because the modules that control safety and powertrain functions may not communicate and the car can stall or fail to restart. If the code is intermittent and the vehicle runs normally, drive only to a repair shop and avoid rough roads that could worsen a wiring short.

Tools that help

- OBD-II scan tool with module communication capability
- Digital multimeter with voltage and resistance functions
- Wiring diagram for the specific vehicle's Bus A circuit
- Back probe pins or breakout box for the diagnostic link connector
- Hand tools for removing trim and accessing modules



Reading U0031

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

Often seen with

U0001 Loss of Bus Communication · **U0032** Vehicle Communication Bus A (+) High · **U0033** Vehicle Communication Bus A (-) Open · **U0034** Vehicle Communication Bus A (-) Low · **U0100** Lost Communication With ECM/PCM A

See it working

Watch the animated explainer [How Drive-by-Wire Works: Electronic Throttle Body](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u0031/>

