

GENERIC · NETWORK

U0087

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U0087

Vehicle Communication Bus F - High

U0087 is a generic network code indicating that a control module has lost or degraded communication on Vehicle Communication Bus F, which is a dedicated high-speed data bus used for specific vehicle functions. The module that set the code detected an abnormal voltage or signal condition on the bus circuit, typically a short to voltage or an open in the bus wiring, rather than a fault in any single component on that bus.

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

Symptoms you may notice

- Illumination of the malfunction indicator lamp (MIL) or a dedicated communication fault light
- One or more electronic features associated with the modules on Bus F may become inoperative, such as stability control, adaptive suspension, or driver assistance systems
- Intermittent operation of accessories that share the affected bus, especially during cold starts or rough road conditions
- A no-start condition if the affected bus carries critical powertrain or security data
- Often no symptoms besides the warning light, with the vehicle driving normally because the fault is isolated to a non-critical bus segment

Common causes, most likely first

- 1 A short to voltage on the Bus F wiring, often caused by chafed insulation against a power wire or a faulty module internally shorting bus voltage to battery positive
- 2 An open circuit in the Bus F twisted pair, frequently from a broken wire at a connector or a corroded terminal
- 3 A failed control module on Bus F that is pulling the bus voltage out of specification
- 4 Water intrusion into a connector or module on Bus F, leading to corrosion and high resistance
- 5 Aftermarket accessories improperly tapped into the Bus F wiring, introducing voltage or interference
- 6 A poor ground connection for one of the modules on Bus F, causing it to back-feed voltage onto the bus



How to diagnose and fix it

- 1 Connect a scan tool and record all stored codes from every module to confirm which modules are on Bus F and which are reporting communication faults
- 2 Inspect the Bus F wiring harness for obvious damage, chafing, or corrosion, especially near connectors and known rub points
- 3 Measure the Bus F CAN (Controller Area Network) high and low voltages with a digital multimeter at the diagnostic link connector (DLC) to check for a short to voltage or an open
- 4 Disconnect modules one at a time from Bus F and recheck bus voltage to isolate a module that is shorting the bus
- 5 Perform a resistance check across the Bus F CAN high and low terminals at the DLC with the battery disconnected to verify proper termination resistance
- 6 Repair or replace the faulty wiring, connector, or module identified in the previous steps, then clear codes and verify communication is restored
- 7 If the fault is intermittent, use a graphing multimeter or oscilloscope to monitor Bus F voltage while wiggling harnesses and driving over rough surfaces

Bus F faults that fool good technicians

- A short to voltage on Bus F is often caused by a module that remains powered after the ignition is off, back-feeding voltage onto the bus and setting U0087 in multiple modules simultaneously.
- The code does not always mean the bus wiring is faulty; a failed module on Bus F can pull the bus voltage high, and disconnecting that module will restore normal communication on the rest of the network.
- Aftermarket alarms, remote starters, or dash cameras tapped into the Bus F wiring are a frequent source of voltage interference that sets U0087 without any factory component failure.
- A poor ground at a single module on Bus F can cause that module to elevate bus voltage, so always check ground integrity before condemning the bus wiring or other modules.
- U0087 can be stored as a history code after a low battery or jump-start event, so clear the code and verify it does not return before beginning invasive diagnostics.

Can I keep driving with U0087?

If the vehicle drives normally and only the warning light is on, you can usually continue driving to a repair shop, but avoid using features that depend on the affected bus. If the vehicle exhibits a no-start, reduced power, or loss of critical safety systems, stop driving and have it towed to avoid unsafe operation.



Tools that help

- Scan tool with full module communication capabilities
- Digital multimeter with voltage and resistance functions
- Oscilloscope or graphing multimeter for intermittent bus faults
- Wiring diagram and connector pinout for the affected vehicle
- Breakout box or back-probe kit for testing at connectors
- Hand tools for trim removal and connector disassembly

Reading U0087

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.
87	The exact fault within that area.

Often seen with

U0086 Vehicle Communication Bus F - Low · **U0088** Vehicle Communication Bus F - Shorted to Bus F + · **U0089** Vehicle Communication Bus G · **U0100** Lost Communication With ECM/PCM A · **U0140** Lost Communication With Instrument Panel Cluster

See it working

Watch the animated explainer [How a Gyroscope Works: Gimbals and Precession](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u0087/>

