

GENERIC · NETWORK

U031B

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U031B

Software Incompatibility With DC/DC Converter Control Module A

U031B is a network communication code indicating that a control module on the vehicle's data bus has detected a software incompatibility with the DC/DC Converter Control Module A. The computer is not reporting a hardware failure of the converter itself, but rather that the software version, calibration, or configuration of the converter module does not match what other modules expect, preventing proper coordinated operation.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Network	Generic (all makes)	Medium	Professional	Software and configuration mismatches

Symptoms you may notice

- Illumination of the malfunction indicator lamp (MIL) or a dedicated service warning light.
- Often no symptoms besides the warning light, with the vehicle driving normally.
- Electrical accessories or charging system behavior may be erratic if the DC/DC converter is not functioning correctly.
- Possible low-voltage or charging system warning messages on the dashboard.
- In some cases, the vehicle may enter a reduced-power or failsafe mode.
- Intermittent operation of systems that rely on the DC/DC converter, such as lighting or infotainment.

Common causes, most likely first

- 1 Software or firmware mismatch between the DC/DC Converter Control Module A and other modules on the network.
- 2 Incorrect or outdated calibration loaded into the DC/DC converter module during a previous repair or update.
- 3 A faulty DC/DC Converter Control Module A with corrupted internal software.
- 4 Poor electrical connections or damaged wiring at the converter module, causing communication errors that mimic incompatibility.
- 5 A recently replaced module that was not properly configured or programmed to the vehicle.
- 6 Network communication issues, such as a degraded CAN bus, that cause modules to report incompatibility.
- 7 Low battery voltage or charging system faults that disrupt module programming or communication.



How to diagnose and fix it

- 1 Verify battery voltage and charging system health, as low voltage can cause false communication codes.
- 2 Inspect the DC/DC Converter Control Module A connectors and wiring for corrosion, damage, or loose pins.
- 3 Use a scan tool to check for other communication codes and retrieve freeze-frame data to understand the conditions when U031B set.
- 4 Check for technical service bulletins (TSBs) or software updates specific to the vehicle make and model related to DC/DC converter software.
- 5 Reprogram or update the DC/DC Converter Control Module A with the latest software using a factory-approved scan tool.
- 6 If reprogramming fails or the code persists, replace the DC/DC Converter Control Module A and perform proper configuration and programming.
- 7 Clear codes and perform a road test to confirm the repair, ensuring all modules communicate without errors.

Software Mismatch Often Misdiagnosed as Hardware Failure

- A common mistake is to replace the DC/DC converter immediately, but the code often stems from a software configuration mismatch that a reprogramming procedure can resolve.
- This code can be set by a module other than the DC/DC converter itself, so always check which module stored U031B before condemning the converter.
- After replacing a DC/DC converter, failing to perform the required configuration or programming steps will almost certainly set U031B again.
- Intermittent low voltage from a weak battery or alternator can cause modules to report software incompatibility, so always verify power and ground integrity first.
- Some vehicles require a specific sequence of module programming updates, and skipping a step can leave the DC/DC converter with incompatible software.

Can I keep driving with U031B?

The vehicle is generally safe to drive if it shows no drivability symptoms, but avoid long trips or heavy electrical loads until the code is diagnosed. If the charging system warning is present or the vehicle enters reduced-power mode, seek service promptly to prevent a no-start or stall condition.

Tools that help

- OBD-II scan tool with factory-level software programming capability
- Digital multimeter for voltage and continuity checks
- Battery tester and charging system analyzer
- Wiring diagram and connector pinout reference for the vehicle
- Factory service information or TSB database access



Reading U031B

- U** Network: communication between the vehicle's control modules.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 3** Software and configuration mismatches.
- 1B** The exact fault within that area.

Often seen with

P0562 System Voltage Low · **U0100** Lost Communication With ECM/PCM A · **U0140** Lost Communication With Instrument Panel Cluster · **U031A** Software Incompatibility With Transmission Range Control Mod · **U031C** Software Incompatibility With Brake System Control Module B

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/u031b/>

