

GENERIC · NETWORK

U033B

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U033B

Software Incompatibility With Hybrid/EV Battery Interface Control Module B

U033B is a network communication code indicating that a control module on the vehicle's CAN bus has detected a software incompatibility with the Hybrid/EV Battery Interface Control Module B. The computer is not reporting a hardware failure but rather that the software versions or calibration levels between modules do not match, preventing proper coordination of the hybrid battery system.

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 hybrid system warning light
- The vehicle may enter a reduced power or limp mode, limiting speed and acceleration
- Hybrid battery charging or discharging may be disabled, forcing the engine to run continuously
- In some cases, the vehicle may fail to start or shift into gear if the hybrid system is deemed inoperative
- Often no symptoms besides the warning light, with the vehicle driving normally

Common causes, most likely first

- 1 Software or calibration mismatch between the Hybrid/EV Battery Interface Control Module B and another module on the CAN bus
- 2 Incomplete or incorrect reprogramming after a module replacement or software update
- 3 A faulty Hybrid/EV Battery Interface Control Module B with corrupted internal software
- 4 Aftermarket or unauthorized software modifications or tuning that altered module communication
- 5 Low voltage or power interruption during a previous reprogramming event, leaving software in an inconsistent state
- 6 A communication fault on the CAN bus that causes modules to report incompatible software versions



How to diagnose and fix it

- 1 Connect a scan tool and retrieve all stored codes from every module to confirm U033B and identify any related communication or software codes
- 2 Check for and install any available software updates or calibration bulletins for the Hybrid/EV Battery Interface Control Module B and other modules on the bus
- 3 Verify battery voltage and ensure a stable power supply during any reprogramming or diagnostic procedures
- 4 Perform a terminal and connector inspection at the Hybrid/EV Battery Interface Control Module B and related modules for corrosion or loose pins
- 5 If software is current and connections are good, follow the manufacturer's diagnostic flow for software incompatibility, which may include module replacement and reprogramming
- 6 After repairs, clear codes and perform a road test to verify that U033B does not return and that hybrid system functions normally

Software mismatches often mimic hardware faults

- A common oversight is replacing the Hybrid/EV Battery Interface Control Module B when the real issue is outdated software in another module that communicates with it.
- U033B can be set by a module that was replaced but not properly configured or learned, even if the replacement part is correct.
- Intermittent CAN bus faults can cause modules to report incompatible software versions, so always check communication integrity before condemning a module.
- Some vehicles may set U033B after a battery replacement if the battery energy control module loses its learned values and software compatibility checks fail.
- This code does not always indicate a permanent failure; clearing it after a software update or battery reconnect may resolve it if no underlying issue exists.

Can I keep driving with U033B?

If the vehicle drives normally with only the warning light on, you can drive it to a repair shop, but avoid long trips or heavy loads. If the vehicle is in limp mode or the hybrid system is disabled, limit driving to a safe location and seek professional diagnosis promptly.

Tools that help

- OBD-II scan tool with manufacturer-specific software capability
- J2534 pass-through device for reprogramming
- Digital multimeter for voltage and continuity checks
- Battery charger or power supply to maintain stable voltage during reprogramming
- Terminal pick and contact cleaner for connector inspection



Reading U033B

- 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.
- 3B** The exact fault within that area.

Often seen with

P0AFA Hybrid/EV Battery System Voltage Low · **U0100** Lost Communication With ECM/PCM A · **U0293** Lost Communication with Hybrid Vehicle Control System · **U033A** Software Incompatibility With Hybrid/EV Battery Interface Co · **U033C** Software Incompatibility With Hybrid/EV Battery Interface Co

See it working

Watch the animated explainer [How Regenerative Braking Works in Electric Cars](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u033b/>

