

GENERIC · NETWORK

U0413

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U0413

Invalid Data Received From Battery Energy Control Module B

U0413 means the vehicle's main computer, usually the engine control module (ECM), received invalid or missing data from the Battery Energy Control Module B over the controller area network (CAN) bus. The ECM expects regular, properly formatted messages from this module, which monitors and manages the high-voltage battery pack in hybrid and electric vehicles, and it flagged the data as unusable.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Network	Generic (all makes)	Medium	Professional	Invalid data received from a module

Symptoms you may notice

- Illumination of the check engine light or service vehicle soon message on the dashboard.
- Often no symptoms besides the warning light, especially if the fault is intermittent.
- Reduced power or limp mode if the hybrid or electric system limits operation due to lost battery data.
- Failure of the high-voltage battery to charge or discharge normally, leading to poor electric range.
- Other warning lights such as the hybrid system fault or battery icon appearing simultaneously.
- In rare cases, the vehicle may refuse to start or shift into gear because the battery module data is missing.

Common causes, most likely first

- 1 A weak or failing 12-volt battery that causes low voltage on the CAN bus and corrupts module communication.
- 2 Corroded, loose, or damaged wiring or connectors at the Battery Energy Control Module B or along the CAN bus.
- 3 A faulty Battery Energy Control Module B itself, often due to internal electronics failure or water intrusion.
- 4 Software or firmware issues in the Battery Energy Control Module B that cause it to send invalid data frames.
- 5 A shorted or open CAN bus line between the ECM and the Battery Energy Control Module B.
- 6 Poor ground connection for the Battery Energy Control Module B, leading to unstable operation.
- 7 Aftermarket accessories or improper jump-starting that introduce electrical noise or voltage spikes on the network.



How to diagnose and fix it

- 1 Perform a full battery and charging system test, including load testing the 12-volt battery and checking alternator or DC-DC converter output.
- 2 Inspect and clean all connectors and wiring at the Battery Energy Control Module B, looking for corrosion, chafing, or loose pins.
- 3 Use a scan tool to check for other communication codes and to verify whether the Battery Energy Control Module B is online and reporting data.
- 4 Measure CAN bus voltage and resistance at the diagnostic link connector (DLC) to confirm bus integrity and rule out shorts or opens.
- 5 Check for technical service bulletins (TSBs) or software updates for the Battery Energy Control Module B that address communication faults.
- 6 If wiring and power are good, substitute a known-good Battery Energy Control Module B or perform a module reprogramming as directed by the manufacturer.
- 7 Clear the code and road test the vehicle to confirm the repair, monitoring live data from the battery module to ensure valid communication.

Why battery module data goes invalid

- A failing 12-volt battery is the most common root cause of U0413 because low voltage disrupts CAN bus signals and causes modules to send malformed data.
- The code does not automatically mean the Battery Energy Control Module B is defective; wiring faults and voltage issues are far more frequent and should be ruled out first.
- On some hybrid and electric vehicles, the Battery Energy Control Module B is part of the high-voltage battery assembly and is not serviceable separately, so diagnosis must confirm the fault before replacement.
- Intermittent U0413 can be set by a brief network glitch during engine cranking or when a weak battery drops voltage, so always check for a history of low-voltage events.
- Related codes such as U0111 or U0412 may also be present, indicating a broader communication issue with the battery energy control module rather than an isolated fault.

Can I keep driving with U0413?

You can usually drive the vehicle with U0413 set, but avoid long trips or heavy loads because the hybrid or electric system may enter a reduced-power mode without warning. If the vehicle exhibits limp mode, charging failure, or multiple warning lights, have it inspected promptly to prevent further damage.



Tools that help

- OBD-II scan tool with live data and CAN bus monitoring capability
- Digital multimeter for voltage and resistance checks
- Battery load tester and charging system tester
- Wiring diagram and connector pinout for the specific vehicle
- CAN bus breakout box or oscilloscope for signal analysis
- Manufacturer-specific diagnostic software for module reprogramming

Reading U0413

U	Network: communication between the vehicle's control modules.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
4	Invalid data received from a module.
13	The exact fault within that area.

Often seen with

P0AFA Hybrid/EV Battery System Voltage Low · **U0100** Lost Communication With ECM/PCM A · **U0111** Lost Communication With Battery Energy Control Module 'A' · **U0412** Invalid Data Received From Battery Energy Control Module A · **U0414** Invalid Data Received From Four-Wheel Drive Clutch Control M

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/u0413/>

