

GENERIC · NETWORK

U0412

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U0412

Invalid Data Received From Battery Energy Control Module A

U0412 means the module that supervises the vehicle's high-voltage battery pack, the Battery Energy Control Module A (BECM A), is sending data that other computers on the network judge to be invalid or implausible. The code is set by a module that receives the BECM's messages, not necessarily by the BECM itself, so the fault can live in the battery module, its wiring, or the receiving module.

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 a dedicated hybrid/EV system warning lamp, often with no other noticeable change in how the car drives
- Reduced power or a limp-home mode in some vehicles when the battery supervisor's data is rejected
- Failure of the high-voltage battery to accept or deliver charge, or the state-of-charge display behaving erratically
- No start or refusal to engage the ready mode on strong hybrids and electric vehicles
- Other unrelated warning lights appearing because multiple modules lose confidence in the battery data stream
- Intermittent symptoms that come and go with temperature, vibration, or after the vehicle sits

Common causes, most likely first

- 1 A failing or internally faulted Battery Energy Control Module A
- 2 Corroded, loose, or damaged wiring and connectors in the controller area network (CAN) or dedicated battery data circuit between the BECM and the receiving module
- 3 Low or unstable 12-volt supply to the BECM, including a weak auxiliary battery or poor ground
- 4 Software or calibration mismatch in the BECM or the module that sets the code, often after a battery or module replacement
- 5 A receiving module that is itself failing and misinterpreting valid BECM data
- 6 High-voltage interlock or battery pack sensor faults that cause the BECM to broadcast implausible values
- 7 Water intrusion or heat damage affecting the BECM or its harness inside the battery pack enclosure



How to diagnose and fix it

- 1 Scan all modules and record every stored and pending code, then verify the 12-volt battery and charging system are healthy before condemning any module
- 2 Inspect the BECM connectors and the data-bus wiring for corrosion, chafing, pushed pins, and loose terminals, and check grounds
- 3 Use a scan tool to view live BECM data and confirm whether the values are implausible or simply not arriving at the receiving module
- 4 Check for technical service bulletins and software updates for the BECM and the module that set the code, and reprogram where applicable
- 5 Perform a wiggle test and, where the manufacturer allows, a resistance or scope check of the CAN or dedicated data circuit while watching for the code to reset
- 6 If wiring and power are proven good, substitute a known-good BECM or the receiving module only after confirming the fault follows the part
- 7 Clear codes and complete a full drive cycle, then recheck to confirm the repair is complete and no related codes return

What U0412 does not always mean

- U0412 is a communication code, so it does not prove the high-voltage battery itself is failing; many vehicles set it from a poor 12-volt supply or a corroded connector.
- The module that stores U0412 is usually not the BECM, so replacing the battery control module first is a common and expensive misdiagnosis.
- After a battery pack or BECM replacement, a missing calibration or an unlearned battery identifier can trigger U0412 even though every part is good.
- Intermittent U0412 that appears only in damp weather often traces to water ingress at a connector rather than an electronic failure.
- A weak auxiliary battery can cause several modules to broadcast invalid data at once, so always check for companion U-codes before chasing the BECM.

Can I keep driving with U0412?

You can usually drive a short distance to a workshop if the vehicle still starts and moves normally, but avoid heavy acceleration, long trips, and any situation where a sudden loss of power would be dangerous. If the car enters limp mode or refuses to start, stop driving and have it recovered.



Tools that help

- OBD-II scan tool with manufacturer-level module access and live data
- Digital multimeter for voltage, resistance, and ground checks
- Oscilloscope for CAN or dedicated data-circuit signal analysis
- Wiring diagram and connector pinout for the BECM circuit
- Battery load tester and charging system tester
- Terminal pick and contact cleaner for connector inspection

Reading U0412

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.
12	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' · **U0411** Invalid Data Received From Drive Motor Control Module · **U0413** Invalid Data Received From Battery Energy Control Module B

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/u0412/>

