

GENERIC · POWERTRAIN

P2E73

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2E73

Hybrid/EV Battery Pack B Cell Thickness Sensor Circuit Performance

P2E73 indicates that the battery management system has detected an abnormal signal from the cell thickness sensor circuit for battery pack B, which monitors physical expansion and contraction of the cells during charging and discharging. The computer compares the sensor's voltage or signal against expected values and flags a performance fault when the reading is out of range, erratic, or implausible for the operating conditions.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Professional

AREA

Hybrid propulsion

Symptoms you may notice

- Illumination of the check engine light or hybrid/EV system warning light, often with no other noticeable symptoms
- Reduced electric-only range or a sudden drop in state of charge
- The vehicle may enter a reduced-power limp mode or refuse to start in EV mode
- Inconsistent charging behavior, such as stopping early or failing to reach a full charge
- A message on the dashboard indicating a hybrid battery fault or service required
- In rare cases, a burning smell or physical swelling of the battery pack if cell expansion is extreme

Common causes, most likely first

- 1 Faulty cell thickness sensor or its internal sensing element
- 2 Damaged or corroded wiring harness or connector at the sensor or battery pack
- 3 Poor electrical connection due to loose pins or water intrusion in the connector
- 4 Failed battery management system (BMS) module or control unit
- 5 Mechanical deformation or swelling of the battery cells affecting sensor readings
- 6 Software calibration error or outdated BMS firmware
- 7 Internal short or degradation within the battery pack causing abnormal expansion



How to diagnose and fix it

- 1 Perform a visual inspection of the battery pack, sensor connectors, and wiring for damage, corrosion, or loose connections
- 2 Use a scan tool to read live data from the cell thickness sensor and compare it with expected values under known conditions
- 3 Check the sensor's resistance and voltage output with a multimeter according to the manufacturer's specifications
- 4 Inspect the wiring harness for continuity and shorts between the sensor and the BMS, repairing any faults found
- 5 If the sensor is faulty, replace it following the manufacturer's procedure and recalibrate the BMS if required
- 6 Update the BMS software if a known calibration issue exists for the vehicle model
- 7 If the sensor and wiring are good, diagnose the BMS module and battery pack internals, which may require dealer-level tools

Cell thickness sensor faults often misdiagnosed

- A weak or failing 12-volt auxiliary battery can cause erratic sensor readings and set this code, so always check the low-voltage system first.
- The cell thickness sensor is sometimes integrated into the battery pack and not serviceable separately, leading to unnecessary pack replacement if diagnostics are rushed.
- This code can be set by a temporary signal glitch after a battery pack service or software update, so clearing it and test-driving may confirm if it is a hard fault.
- Corrosion at the sensor connector is a common cause that is easily overlooked, especially in vehicles exposed to humid or salty environments.
- A cell thickness sensor performance code does not always mean the battery cells are failing; the sensor circuit itself is the primary suspect.

Can I keep driving with P2E73?

It is generally safe to drive with this code if the vehicle is operating normally, but avoid aggressive acceleration, heavy loads, and long trips until the fault is diagnosed. If the vehicle enters limp mode or shows a battery fault warning, stop driving and seek professional service to prevent further damage.

Tools that help

- OBD-II scan tool with live data and hybrid/EV battery monitoring capability
- Digital multimeter with resistance and voltage measurement
- Manufacturer-specific diagnostic software or dealer-level scan tool
- Insulation tester for checking wiring integrity
- Socket and wrench set for accessing battery pack components
- Service information for the specific vehicle model



Reading P2E73

- P** Powertrain: engine, transmission and emissions.
- 2** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- E** Hybrid propulsion.
- 73** The exact fault within that area.

Often seen with

P0AFA Hybrid/EV Battery System Voltage Low · **P2E70** Hybrid/EV Battery Pack B Cell Thickness · **P2E71** Hybrid/EV Battery Pack B Cell Thickness Sensor Circuit High · **P2E72** Hybrid/EV Battery Pack B Cell Thickness Sensor Circuit Low · **P2E74** Hybrid/EV Battery Pack Coolant Temperature Sensor D Circuit

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/p2e73/>

