

GENERIC · POWERTRAIN

P2EB5

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2EB5

Hybrid/EV Battery Inductive Charger Input Voltage Low

P2EB5 indicates that the hybrid or electric vehicle's inductive charging system has detected an abnormally low input voltage at the charger's power input stage. The control module monitors the voltage supplied to the inductive charger and sets this code when the reading falls below the manufacturer's specified threshold, which can prevent the high-voltage battery from charging properly.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Hybrid propulsion

Symptoms you may notice

- Charging warning light or message displayed on the dashboard
- Vehicle fails to start charging when plugged in or placed on the charging pad
- Charging session starts but stops prematurely or repeatedly
- Reduced electric driving range due to incomplete charging
- Often no symptoms besides the warning light, especially if the fault is intermittent

Common causes, most likely first

- 1 Weak or failing 12-volt auxiliary battery supplying low voltage to the charger control circuit
- 2 Corroded, loose, or damaged wiring and connectors between the power source and the inductive charger
- 3 Blown or degraded fuse in the charger's input power circuit
- 4 Faulty voltage supply from the DC-DC converter or power control module
- 5 Internal fault in the inductive charger assembly causing excessive voltage drop
- 6 Poor ground connection for the charger or its control module
- 7 Software glitch in the charging control module requiring recalibration or update



How to diagnose and fix it

- 1 Scan all modules for stored codes and record freeze-frame data to confirm the fault conditions
- 2 Visually inspect the charger input wiring, connectors, and fuses for damage, corrosion, or looseness
- 3 Measure the input voltage at the inductive charger connector with a multimeter and compare to specification
- 4 Load-test the 12-volt auxiliary battery and check the charging system output
- 5 Check and clean all ground connections related to the charger and its control module
- 6 If voltage supply is correct, test the inductive charger assembly according to the manufacturer's diagnostic procedure
- 7 Repair or replace faulty wiring, fuses, or the charger assembly as needed, then clear codes and verify the repair

Don't overlook the 12-volt battery

- A weak 12-volt auxiliary battery is a frequent culprit because the inductive charger's control electronics rely on a stable low-voltage supply, and a sagging battery can trigger this code even when the high-voltage system appears fine.
- Intermittent low voltage can be caused by a poor ground connection that only acts up under vibration or temperature changes, so a simple voltage check at rest may not reveal the problem.
- This code does not automatically mean the inductive charger itself has failed; the fault often lies in the power supply circuit or a corroded connector that is far cheaper to fix.
- Some vehicles set P2EB5 when the charging pad or external power source provides inadequate voltage, so always verify the external charging equipment before condemning vehicle components.
- After repairing the underlying fault, the code may remain stored until a successful charging cycle is completed, so clearing codes without performing a full charge test can lead to a false comeback.

Can I keep driving with P2EB5?

You can generally drive the vehicle, but charging may be unreliable or impossible, which will limit electric range and could leave you stranded if the high-voltage battery depletes. Avoid relying on the charging system until the fault is repaired, and do not attempt repeated charging cycles if the vehicle repeatedly aborts the session.

Tools that help

- OBD-II scan tool with hybrid/EV capability
- Digital multimeter
- Battery load tester
- Fuse puller and test light
- Manufacturer service information for voltage specifications and wiring diagrams



Reading P2EB5

- P** Powertrain: engine, transmission and emissions.
- 2** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- E** Hybrid propulsion.
- B5** The exact fault within that area.

Often seen with

P0A0D High Voltage System Interlock Circuit A High · **P0A94** DC/DC Converter A Performance · **P2EB4** Hybrid/EV Battery Inductive Charger High Voltage Interlock C · **P2EB6** Hybrid/EV Battery Inductive Charger Input Voltage High

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/p2eb5/>

