

GENERIC · POWERTRAIN

P0AC5

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0AC5

Hybrid/EV Battery Temperature Sensor B Circuit

P0AC5 indicates that the hybrid or electric vehicle battery pack's temperature sensor B circuit is reporting a voltage outside the range the battery energy control module expects, which prevents accurate thermal monitoring of the high-voltage pack. The computer has detected an abnormal signal on that sensor's circuit, either an open, a short, or a value that does not track with the other temperature sensors.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Professional	Hybrid propulsion

Symptoms you may notice

- Illumination of the hybrid system warning light or service vehicle soon message, often with no other noticeable symptoms
- Reduced electric-only driving range or a forced switch to gasoline engine operation in a plug-in hybrid
- A sudden drop in available battery power or a limp-home mode that limits vehicle speed
- Failure of the high-voltage battery to accept a charge or premature termination of a charging session
- Inconsistent state-of-charge readings or a battery gauge that behaves erratically
- In rare cases, a message advising the vehicle be parked and serviced due to a high-voltage battery fault

Common causes, most likely first

- 1 A failed battery temperature sensor B inside the high-voltage pack, either open circuit or out of calibration
- 2 Corroded, loose, or damaged wiring or connector pins in the sensor harness between the pack and the control module
- 3 A short to ground or short to voltage on the sensor signal or return circuit
- 4 A faulty battery energy control module or hybrid control module that misinterprets a valid sensor signal
- 5 Internal battery pack damage or a loose sensor mounting that allows poor thermal contact with the cells
- 6 Water intrusion or debris in the battery pack connector causing intermittent signal loss



How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, then record freeze-frame data for P0AC5 and any companion temperature sensor codes
- 2 Inspect the battery pack wiring harness and connectors for corrosion, chafing, or pushed-out pins, especially at the pack pass-through
- 3 Measure the resistance of sensor B at the control module connector and compare it with the other battery temperature sensors at the same ambient temperature
- 4 Back-probe the sensor signal circuit and check for a short to ground or short to voltage with the key on and the module disconnected
- 5 If the sensor resistance is out of specification or does not change with temperature, replace the affected battery temperature sensor
- 6 After repair, clear codes and perform a battery pack temperature sensor learn or adaptation procedure if the manufacturer requires it
- 7 Road test and verify that all battery temperature readings track within a few degrees of each other and that P0AC5 does not return

Why sensor B fails without a pack fault

- A common misdiagnosis is replacing the entire high-voltage battery pack when only one temperature sensor has drifted, so always compare sensor B against the other pack sensors before condemning the pack.
- Intermittent P0AC5 codes often trace to a connector that is only loose when the pack expands and contracts with temperature, so wiggle-test the harness while watching live data.
- Some vehicles set P0AC5 when the 12-volt auxiliary battery is weak because the control module logs implausible sensor values during low-voltage cranking, so check the 12-volt system first.
- A sensor that reads a plausible but fixed temperature, such as always 25 degrees Celsius, indicates an internal short in the thermistor rather than an open circuit, and this distinction changes the repair.
- Aftermarket battery pack repairs or replacement modules sometimes need a temperature sensor calibration routine that generic scan tools cannot perform, which leaves a false P0AC5 stored.

Can I keep driving with P0AC5?

The vehicle is generally safe to drive short distances because the fault affects monitoring rather than immediate high-voltage safety, but avoid aggressive acceleration, fast charging, and long trips until the circuit is repaired. If the cluster displays a park-immediately message or the battery temperature gauge behaves erratically, stop driving and have the vehicle towed to avoid thermal stress on the pack.



Tools that help

- Hybrid-capable OBD-II scan tool with live battery temperature data
- Digital multimeter with resistance and voltage measurement
- Manufacturer service information for battery pack connector pinouts
- Insulated hand tools rated for high-voltage work
- Back-probe kit and terminal pick set

Reading P0AC5

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
A	Hybrid propulsion.
C5	The exact fault within that area.

Often seen with

P0A0D High Voltage System Interlock Circuit A High · **P0AC4** Hybrid/EV Powertrain Control Module Requested MIL Illuminati · **P0AC6** Hybrid/EV Battery Temperature Sensor B Circuit Range/Perform · **P0AC7** Hybrid/EV Battery Temperature Sensor B Circuit Low · **P0AFA** Hybrid/EV Battery System Voltage Low

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/p0ac5/>

