

GENERIC · POWERTRAIN

P0DBA

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0DBA

Hybrid/EV Battery Cell Balancing Circuit D Stuck Off

P0DBA indicates that the battery management system has detected a failure in the cell balancing circuit for battery module 'D', where the circuit is stuck in the off state and cannot equalize cell voltages. The computer monitors the balancing circuit's response and sets this code when it commands balancing but sees no corresponding current flow or voltage change.

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

Symptoms you may notice

- Illumination of the hybrid/EV battery fault warning light or service vehicle soon message
- Reduced electric-only range or performance due to unbalanced cells
- The vehicle may enter a reduced power mode or fail to start in some cases
- Often no symptoms besides the warning light, especially if the imbalance is small
- Possible charging system warnings or failure to complete a full charge
- In rare cases, a noticeable decrease in fuel economy as the engine runs more to compensate

Common causes, most likely first

- 1 Open or high-resistance wiring in the cell balancing circuit for module D
- 2 Faulty cell balancing resistor or transistor within the battery pack
- 3 Failed battery management system (BMS) control module or internal driver
- 4 Corroded or loose connector pins at the battery pack or BMS harness
- 5 Internal failure of the battery module D (e.g., shorted cell affecting balancing)
- 6 Software glitch in the BMS requiring recalibration or update



How to diagnose and fix it

- 1 Use a scan tool to retrieve all stored codes and freeze-frame data, then clear codes and test-drive to see if P0DBA returns
- 2 Visually inspect the battery pack harness and connectors for damage, corrosion, or loose pins, especially at module D
- 3 Measure resistance of the balancing circuit wiring and compare to manufacturer specifications
- 4 Check the balancing resistor and transistor for open or short circuits using a multimeter
- 5 Test the BMS control module outputs with an oscilloscope or bidirectional scan tool to confirm command signals
- 6 If the BMS is faulty, replace or reprogram it according to service information
- 7 If the battery module D is defective, replace the module or battery pack as required

Before you replace the hybrid battery pack

- A stuck-off balancing circuit often results from a simple wiring issue or corroded connector, so always inspect the harness before condemning the battery pack.
- Some vehicles set P0DBA only after multiple drive cycles with a small cell voltage imbalance, meaning the fault may not be immediately repeatable.
- The BMS may command balancing only under specific conditions (e.g., during charging or at rest), so a road test alone might not trigger the code.
- A weak or failing 12-volt battery can cause erratic BMS behavior and set false balancing codes, so check the auxiliary battery first.
- After repairs, the BMS may need a relearn or calibration procedure to clear the code and restore proper balancing.

Can I keep driving with P0DBA?

You can usually continue driving with P0DBA, but avoid heavy acceleration or long trips until diagnosed, as unbalanced cells can reduce performance and may lead to a no-start condition. If the vehicle enters reduced power mode, seek service promptly.

Tools that help

- OBD-II scan tool with hybrid/EV battery capabilities
- Digital multimeter
- Oscilloscope
- Battery pack service information and wiring diagrams
- Insulation tester (megohmmeter)



Reading P0DBA

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

Often seen with

P0AFA Hybrid/EV Battery System Voltage Low · **P0DB8** Hybrid/EV Battery Cell Balancing Circuit D · **P0DB9** Hybrid/EV Battery Cell Balancing Circuit D Stuck On · **P0DBB** Hybrid/EV Battery Cell Balancing Circuit D Range/Performance · **P0DBC** Hybrid/EV Battery Cell Balancing Circuit E

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/p0dba/>

