



P0DC4

Hybrid/EV Battery Cell Balancing Circuit G

P0DC4 indicates that the hybrid or electric vehicle battery management system has detected a fault in the cell balancing circuit for a specific group of cells, designated as group G. The computer monitors the voltage equalization process and sets this code when the circuit's performance falls outside the expected range, which can lead to uneven cell voltages and reduced battery performance.

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

Symptoms you may notice

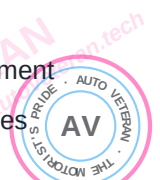
- Illumination of the hybrid/EV battery warning light or service vehicle soon message
- Reduced electric driving range or overall battery capacity
- The vehicle may enter a reduced power mode or fail to start
- Often no symptoms besides the warning light
- Inconsistent state of charge readings or fluctuating battery gauge
- Possible charging interruptions or errors during charging

Common causes, most likely first

- 1 Faulty cell balancing circuit wiring or connector issues, such as corrosion or loose pins
- 2 Malfunctioning battery management system (BMS) software or hardware
- 3 A weak or failing battery cell within the affected group
- 4 Open or short circuit in the balancing resistor or associated components
- 5 Damaged voltage sensing harness for the cell group
- 6 Internal failure in the battery pack module affecting balancing

How to diagnose and fix it

- 1 Perform a thorough visual inspection of the battery pack wiring and connectors for damage or corrosion
- 2 Use a scan tool to retrieve all stored codes and freeze frame data, then clear codes and test drive to see if the code returns
- 3 Check for technical service bulletins (TSBs) or software updates for the BMS
- 4 Measure the voltage of each cell in the affected group and compare to specifications
- 5 Test the continuity and resistance of the balancing circuit wiring and components
- 6 If available, perform a battery pack balancing procedure using the manufacturer's diagnostic equipment
- 7 Replace the faulty battery module or BMS component as needed, following manufacturer procedures



What the balancing circuit code really means

- A P0DC4 code often sets due to a poor connection at the battery pack connector rather than a failed battery module, so always check connectors first.
- The code may be stored intermittently and not illuminate the warning light immediately, especially if the imbalance is small.
- Replacing the battery pack without first verifying the balancing circuit can lead to unnecessary expense, as the issue may be in the wiring or BMS.
- Some vehicles require a specific driving pattern or charging cycle to complete cell balancing, and the code may clear after a successful balancing session.
- This code is specific to the balancing circuit for cell group G, so misdiagnosis can occur if the technician assumes it indicates a general battery failure.

Can I keep driving with P0DC4?

It is generally safe to drive with this code if the vehicle is operating normally, but avoid aggressive driving or long trips until diagnosed. If the vehicle enters reduced power mode or shows other warnings, seek service immediately.

Tools that help

- OBD-II scan tool with hybrid/EV battery diagnostic capability
- Digital multimeter with high voltage safety rating
- Battery pack balancing equipment (if available)
- Manufacturer-specific diagnostic software
- Insulation tester for high-voltage circuits

Reading P0DC4

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
D	Hybrid propulsion.
C4	The exact fault within that area.

Often seen with

P0A7F Hybrid/EV Battery Pack Deterioration · **P0AFA** Hybrid/EV Battery System Voltage Low · **P0BBB** Hybrid/EV Battery Pack Voltage Variation Exceeded Limit · **P0DC3** Hybrid/EV Battery Cell Balancing Circuit F Range/Performance · **P0DC5** Hybrid/EV Battery Cell Balancing Circuit G Stuck On



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/p0dc4/>

