

GENERIC · POWERTRAIN

P0AD3

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0AD3

Hybrid/EV Battery Pack Cooling Fan 3 Control Circuit High

P0AD3 indicates that the hybrid or electric vehicle battery pack cooling fan 3 control circuit is showing a high voltage condition, meaning the control module has detected an abnormally high voltage on the fan's control wire. This typically points to an open circuit, a short to voltage, or a faulty fan control module, and the vehicle may disable the cooling fan to protect the battery.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Hybrid propulsion

Symptoms you may notice

- Illumination of the check engine light or service vehicle soon light
- Often no symptoms besides the warning light
- Reduced hybrid/EV battery cooling performance, potentially leading to power reduction
- Fan may run continuously at full speed or not at all
- Possible overheating warning or reduced electric range in extreme cases

Common causes, most likely first

- 1 Open circuit or high resistance in the fan control circuit wiring
- 2 Short to voltage on the control circuit
- 3 Faulty battery pack cooling fan 3
- 4 Failed fan control module or relay
- 5 Corroded or damaged electrical connectors
- 6 Faulty hybrid/EV battery control module (less common)

How to diagnose and fix it

- 1 Perform a visual inspection of the fan, wiring, and connectors for damage or corrosion
- 2 Use a scan tool to check for related codes and freeze frame data
- 3 Measure resistance and voltage on the fan control circuit to identify opens or shorts
- 4 Test the fan motor directly with power and ground to verify operation
- 5 Check the fan control module and relay for proper function
- 6 Repair or replace damaged wiring or connectors as needed
- 7 Clear codes and verify the repair with a test drive



Diagnosing P0AD3 Without Throwing Parts

- A high voltage code often results from an open circuit rather than a short, so check for disconnected or broken wires first.
- The fan may test fine when bench-tested but fail under load due to intermittent wiring issues.
- Corrosion inside connectors can cause high resistance that mimics a faulty fan, so inspect terminals closely.
- Replacing the fan without checking the control circuit can lead to repeat failures if the root cause is wiring.
- Some vehicles set this code if the fan control module loses ground, which can be overlooked.

Can I keep driving with P0AD3?

It is generally safe to drive with this code as long as the vehicle does not show overheating warnings or reduced power, but avoid heavy loads or long trips until repaired to prevent battery overheating.

Tools that help

- OBD-II scan tool
- Digital multimeter
- Wire probe set
- Service manual with wiring diagrams
- Basic hand tools

Reading P0AD3

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
A	Hybrid propulsion.
D3	The exact fault within that area.

Often seen with

P0AD2 Hybrid/EV Battery Pack Cooling Fan 3 Control Circuit Low · **P0AD4** Hybrid/EV Battery Pack Air Flow System Insufficient Air Flow · **P0AFA** Hybrid/EV Battery System Voltage Low · **P0AFC** Hybrid/EV Battery Pack Sensor Module

See it working

Watch the animated explainer [How a Radiator Fan Relay Circuit Works](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0ad3/>

