



P0AD5

Hybrid/EV Battery Pack Air Flow Valve A Control Circuit/Open

P0AD5 indicates that the hybrid or electric vehicle battery pack air flow valve A control circuit is open, meaning the battery energy control module has detected no continuity on the valve's control circuit. The valve is responsible for directing cooling air across the high-voltage battery pack, and an open circuit prevents the module from commanding the valve to open or close.

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

Symptoms you may notice

- Illumination of the hybrid system warning light or service vehicle soon message
- Often no symptoms besides the warning light, especially if the valve fails in a partially open position
- Reduced hybrid system performance or a forced limp mode in some vehicles
- Battery pack overheating warning if the valve remains closed and cooling airflow is blocked
- Audible clicking or no sound from the valve when the vehicle is started or shut down
- Inconsistent battery temperature readings or reduced electric-only range

Common causes, most likely first

- 1 Broken or corroded wire in the valve control circuit, particularly at the valve connector or along the harness route
- 2 Failed air flow valve actuator motor or internal open winding
- 3 Loose, backed-out, or corroded terminals at the valve electrical connector
- 4 Open circuit inside the battery energy control module driver for the valve control circuit
- 5 Rodent damage or chafing of the valve control wiring harness
- 6 Water intrusion into the valve connector or module connector causing corrosion and an open circuit



How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, then clear codes and verify whether P0AD5 returns immediately
- 2 Visually inspect the air flow valve connector and harness for corrosion, loose pins, chafing, or rodent damage
- 3 Disconnect the valve connector and measure resistance across the valve actuator motor terminals to check for an open winding
- 4 Check for battery voltage and ground at the valve connector with the key on, using a wiring diagram to identify the correct pins
- 5 Perform a continuity and voltage drop test on the control circuit from the valve connector back to the battery energy control module
- 6 If the circuit tests good, substitute a known-good valve or use a bidirectional scan tool to command the valve and observe operation
- 7 Repair or replace the faulty wiring, connector, valve, or module as indicated by the test results, then clear codes and verify the repair

What an open valve circuit really means

- An open circuit code does not always mean the valve itself has failed; a corroded connector pin or a broken wire two feet from the valve is just as common and far cheaper to fix.
- Many vehicles will not set this code until the battery energy control module attempts to command the valve during a cooling request, so a valve that is stuck open may never trigger the code until the next key cycle.
- Technicians often overlook the ground circuit for the valve, but a poor ground on the valve body or module can mimic an open control circuit and lead to unnecessary module replacement.
- After any hybrid battery cooling system repair, the battery energy control module may need a relearn or calibration procedure before the code will stay cleared.
- A failing 12-volt auxiliary battery can cause low-voltage conditions that set false open-circuit codes in hybrid control modules, so always verify system voltage before condemning the valve.

Can I keep driving with P0AD5?

You can usually drive the vehicle short distances to a repair shop, but avoid heavy acceleration, long trips, or high ambient temperatures because the battery pack may not cool properly. If the hybrid system warning light flashes or the vehicle enters limp mode, stop driving and have it towed.

Tools that help

- OBD-II scan tool with bidirectional control and hybrid module access
- Digital multimeter with resistance, voltage, and continuity functions
- Wiring diagram for the specific vehicle's hybrid battery cooling circuit
- Trim removal tools for accessing the valve and harness
- Back probe pins or breakout leads for connector testing



Reading P0AD5

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- A** Hybrid propulsion.
- D5** The exact fault within that area.

Often seen with

P0AD6 Hybrid/EV Battery Pack Air Flow Valve A Control Circuit Rang · **P0AD7** Hybrid/EV Battery Pack Air Flow Valve A Control Circuit Low · **P0AD8** Hybrid/EV Battery Pack Air Flow Valve A Control Circuit High · **P0AFA** Hybrid/EV Battery System Voltage Low · **P0AFC** Hybrid/EV Battery Pack Sensor Module

See it working

Watch the animated explainer [Four-Stroke Engine Cutaway: Intake to Exhaust](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0ad5/>

