



P0BC8

Hybrid/EV Battery Pack Cooling Fan 1 Sense Range/Performance

P0BC8 indicates that the hybrid or electric vehicle battery pack cooling fan 1 control circuit is reporting a sense value that is outside the expected range or not performing as designed. The computer monitors the fan's feedback signal and sets this code when the signal does not correlate with the commanded fan speed or shows an implausible voltage.

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

Symptoms you may notice

- Illumination of the check engine light or service vehicle soon message
- Often no symptoms besides the warning light
- Reduced hybrid/EV battery cooling performance, possibly leading to power reduction
- Fan may run continuously at full speed or not at all
- Overheating warning or high battery temperature indication
- Audible fan noise that is absent or abnormal

Common causes, most likely first

- 1 Faulty battery pack cooling fan 1 assembly
- 2 Damaged or corroded wiring or connector at the fan or control module
- 3 Failed cooling fan control module or relay
- 4 Restricted or blocked cooling fan duct or debris in the fan
- 5 Software issue in the hybrid/EV control module requiring recalibration
- 6 Poor ground connection for the fan circuit

How to diagnose and fix it

- 1 Inspect the cooling fan and duct for physical obstructions or debris
- 2 Check the fan connector and wiring for corrosion, damage, or loose pins
- 3 Measure the fan sense circuit voltage and compare to specifications
- 4 Test the fan motor directly with a known good power source to verify operation
- 5 Check for applicable technical service bulletins or software updates for the hybrid control module
- 6 Replace the cooling fan assembly if it fails electrical or mechanical testing
- 7 Clear the code and verify the repair by running the fan through its full speed range



Don't overlook the sense circuit

- A common misdiagnosis is replacing the fan motor when the actual fault is a chafed sense wire or a poor ground, so always load-test the circuit before condemning parts.
- The code can set intermittently due to a fan that momentarily stalls from debris or worn bearings, which may not be present during a static inspection.
- Some vehicles use a smart fan with integrated electronics; a failed internal sensor can trigger this code even though the fan still spins freely.
- A low or weak 12-volt auxiliary battery can cause erratic fan control module behavior and set this code without any fan defect.

Can I keep driving with P0BC8?

You can usually drive the vehicle, but avoid heavy loads or high ambient temperatures that demand maximum battery cooling. If the vehicle enters a reduced power mode or shows a high battery temperature warning, stop and seek service.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the specific vehicle
- Basic hand tools for trim and connector removal
- Vacuum or compressed air for cleaning ducts

Reading P0BC8

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
B	Hybrid propulsion.
C8	The exact fault within that area.

Often seen with

P0BC9 Hybrid/EV Battery Pack Cooling Fan 1 Sense Circuit Low · **P0BCA** Hybrid/EV Battery Pack Cooling Fan 1 Sense Circuit High · **P0BCB** Hybrid/EV Battery Pack Cooling Fan 1 Sense Circuit Intermitt · **P0BCC** Generator Inverter Temperature Sensor A Circuit · **P0BCD** Generator Inverter Temperature Sensor A Circuit Range/Perfor



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/p0bc8/>

