



P0AC9

Hybrid/EV Battery Temperature Sensor B Circuit Intermittent/Erratic

P0AC9 means the hybrid or electric vehicle battery pack's temperature sensor B is sending an intermittent or erratic signal to the battery energy control module. The computer has detected that the sensor's voltage or resistance reading is jumping around or dropping out, rather than holding a steady value that matches the other temperature sensors.

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

Symptoms you may notice

- Often no symptoms besides the warning light, because the fault may be intermittent and the pack stays within a safe temperature range.
- A sudden drop in hybrid or electric driving range or power, as the system limits current to protect the battery when it cannot trust the temperature reading.
- The vehicle may refuse to start or shift into gear if the battery management system cannot confirm safe operating temperature.
- A message on the dashboard telling you the hybrid or electric system needs service, sometimes accompanied by a chime.
- In rare cases, the battery cooling fan may run constantly or not at all because the control module is acting on a false temperature signal.
- The check engine light may clear on its own and return later, especially in damp weather or after the vehicle sits overnight.

Common causes, most likely first

- 1 A loose, corroded, or partially disconnected electrical connector at temperature sensor B or at the battery energy control module.
- 2 A failing temperature sensor B itself, where the internal thermistor becomes intermittent as it heats and cools.
- 3 Damage to the sensor wiring harness, such as a chafed wire shorting to ground or an open circuit from vibration or rodent damage.
- 4 A poor ground connection shared by the battery temperature sensor circuit, causing erratic voltage readings.
- 5 A fault inside the battery energy control module's sensor input circuit, though this is less common than wiring or sensor problems.
- 6 Moisture or contamination inside the battery pack reaching the sensor connector and changing its resistance.
- 7 Aftermarket accessories or previous repairs that tapped into the sensor wiring and disturbed the signal.



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data for P0AC9, then clear the code and test-drive to see whether it returns immediately or only under specific conditions.
- 2 Inspect the temperature sensor B connector and the battery energy control module connector for corrosion, loose pins, or pushed-back terminals, and clean or repair as needed.
- 3 Check the sensor's resistance or voltage with a multimeter while gently wiggling the harness and heating the sensor with a heat gun, looking for a signal that jumps or drops out.
- 4 Perform a voltage drop test on the sensor ground circuit and the signal wire to rule out high resistance in the wiring or grounds.
- 5 Compare sensor B's reading with the other battery temperature sensors using live data; a sensor that reads far off from its neighbours when the pack is at rest points to the sensor or its wiring.
- 6 If the wiring and connectors are good, replace temperature sensor B according to the manufacturer's service procedure, which may require lowering the battery pack on some vehicles.
- 7 After repair, clear the codes, run the battery management system's relearn or calibration procedure if required, and verify that the code does not return during a road test that includes a full warm-up cycle.

Why an intermittent battery sensor code misleads

- A code for an intermittent sensor often sets only when the vehicle sits overnight in cold or damp conditions, so a technician who tests a warm, dry car may see perfectly normal live data and wrongly condemn the sensor.
- The battery energy control module compares all temperature sensors against each other; a single erratic sensor can trigger this code even when the pack itself is at a safe temperature, which is why many vehicles show no drivability symptoms.
- Rodent damage to the low-voltage wiring on top of the battery pack is a frequent cause that gets missed because the chewed section is hidden under the pack cover or behind the rear seat.
- A weak 12-volt auxiliary battery can cause erratic communication and sensor readings on hybrid and electric vehicles, so always check the auxiliary battery's condition before chasing the high-voltage sensor circuit.
- Replacing the sensor without checking the connector terminal tension often leads to a repeat code, because a spread terminal can pass a static test but lose contact when the vehicle vibrates.

Can I keep driving with P0AC9?

You can usually drive the vehicle short distances to a repair shop, but avoid heavy acceleration, fast charging, and long trips until the fault is repaired, because the system may limit power or shut down if it loses confidence in the battery temperature reading. If the vehicle enters a reduced-power mode or refuses to start, have it towed rather than forcing it.



Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter with resistance and voltage drop functions
- Heat gun for thermally cycling the sensor during testing
- Back-probe kit or breakout leads for testing connectors without damage
- Manufacturer service information for battery pack access and sensor replacement procedures
- Insulated gloves and high-voltage safety equipment if the battery pack must be opened

Reading P0AC9

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
A	Hybrid propulsion.
C9	The exact fault within that area.

Often seen with

P0A0D High Voltage System Interlock Circuit A High · **P0AC8** Hybrid/EV Battery Temperature Sensor B Circuit High · **P0ACA** Hybrid/EV Battery Temperature Sensor C Circuit · **P0ACB** Hybrid/EV Battery Temperature Sensor C Circuit Range/Perform · **P0AFA** Hybrid/EV Battery System Voltage Low

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/p0ac9/>

