

GENERIC · POWERTRAIN

P0ACE

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0ACE

Hybrid/EV Battery Temperature Sensor C Circuit Intermittent/Erratic

P0ACE indicates that the hybrid or electric vehicle battery temperature sensor assigned to circuit C is reporting an intermittent or erratic signal to the battery energy control module. The computer detects this when the sensor voltage or resistance readings jump abruptly, drop out momentarily, or fail to follow expected temperature changes, rather than reading a steady value.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Professional	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 in mild weather
- Reduced electric-only driving range or forced engine operation in a plug-in hybrid
- Intermittent loss of charging capability or a charge session that stops unexpectedly
- A sudden drop in state of charge or power gauge reading while driving
- In rare cases, the vehicle may enter a reduced-power limp mode to protect the battery

Common causes, most likely first

- 1 A failing battery temperature sensor with an internal intermittent connection
- 2 Corroded, loose, or backed-out terminals in the sensor connector or at the control module
- 3 Chafed or broken wiring in the sensor harness, often near a flex point or battery pack seam
- 4 Water intrusion into the sensor connector or battery pack enclosure causing signal shorts
- 5 A faulty battery energy control module or its internal sensor interface circuit
- 6 Heat damage or vibration fatigue affecting the sensor pigtail or splice
- 7 Aftermarket accessories or previous repairs that disturbed the battery pack wiring



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data for P0ACE, then clear the code and verify whether it returns under the same conditions
- 2 Inspect the sensor C connector and harness for corrosion, loose pins, chafing, or water intrusion, and repair terminals as needed
- 3 Back-probe the sensor signal and ground circuits at the control module and wiggle-test the harness while watching for erratic voltage changes
- 4 Compare sensor C readings with the other battery temperature sensors during a cold soak and after a drive to confirm the erratic behavior
- 5 Measure sensor resistance at known temperatures and compare with the manufacturer's specification to isolate a faulty sensor
- 6 Replace the suspect battery temperature sensor if wiring and connectors pass inspection, then clear codes and verify the repair
- 7 If the signal remains erratic with a known-good sensor and verified wiring, test or replace the battery energy control module per service information

What intermittent sensor C really means

- A sensor that reads erratically only when the pack is hot or cold often points to a failing internal element rather than a wiring fault, so temperature-specific testing matters more than a simple resistance check at room temperature.
- Many P0ACE events are caused by a connector that passes a static wiggle test but fails when the battery pack expands and contracts with temperature changes, so a loaded or heat-cycled test is more revealing.
- The code does not always mean the sensor itself is bad; a high-resistance ground shared with other sensors can make only one channel look erratic while the others appear normal.
- Clearing the code and returning the vehicle to service without capturing freeze-frame data often leads to a repeat visit, because the intermittent event may not recur for days or weeks.
- On some vehicles, a low 12-volt auxiliary battery or a recent jump start can cause the control module to log this code falsely, so verify system voltage stability before condemning the sensor.

Can I keep driving with P0ACE?

You can usually drive the vehicle short distances to a repair shop, but avoid high-load driving, rapid charging, and extreme temperatures until the fault is diagnosed. If the hybrid system warning light is accompanied by reduced power or a charging fault, stop using the vehicle and arrange service.



Tools that help

- OBD-II scan tool with hybrid/EV module access and live data graphing
- Digital multimeter with back-probe pins and temperature probe
- Manufacturer service information for sensor resistance specifications and connector pinouts
- Insulated hand tools and terminal removal tools for connector repair
- Heat gun or cold spray for temperature-specific testing of the sensor circuit

Reading P0ACE

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

Often seen with

P0AC9 Hybrid/EV Battery Temperature Sensor B Circuit Intermittent/ · **P0ACB** Hybrid/EV Battery Temperature Sensor C Circuit Range/Perform · **P0ACC** Hybrid/EV Battery Temperature Sensor C Circuit Low · **P0ACD** Hybrid/EV Battery Temperature Sensor C Circuit High · **P0ACF** Hybrid/EV Battery Pack Cooling Fan 3 Control Circuit/Open

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/p0ace/>

