



P0CD9

Hybrid/EV Battery Pack Coolant Temperature Sensor B Circuit Intermittent/Erratic

P0CD9 indicates that the hybrid or electric vehicle battery pack coolant temperature sensor B circuit is reporting an intermittent or erratic signal to the battery energy control module. The computer detects this when the sensor's voltage or resistance readings jump unpredictably or drop out momentarily, rather than following a smooth, expected curve during key-on or while the pack is under load.

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 on the dashboard.
- Often no symptoms besides the warning light, especially if the fault is momentary and the system defaults to a safe operating strategy.
- Reduced electric-only range or a forced switch to gasoline engine operation in a plug-in hybrid.
- Inconsistent battery cooling fan operation, such as the fan running at full speed constantly or not running when the pack is hot.
- A stored history of intermittent codes that may clear themselves after several drive cycles without the fault recurring.
- In rare cases, a sudden reduction in power output or a message to pull over safely if the module cannot confirm pack temperature.

Common causes, most likely first

- 1 A loose, corroded, or backed-out terminal in the sensor B connector or at the battery energy control module harness.
- 2 Chafed or pinched wiring in the sensor B circuit where the harness routes near the battery pack enclosure or through a body grommet.
- 3 An internal fault in the coolant temperature sensor B itself, such as a cracked thermistor element that opens and closes with temperature changes.
- 4 Coolant contamination or a low coolant level that causes the sensor to read air pockets intermittently, producing erratic signals.
- 5 A failing battery energy control module or a poor ground connection shared with the sensor reference circuit.
- 6 Electromagnetic interference from nearby high-voltage cables that induces noise on the low-voltage sensor signal wire.
- 7 A damaged sensor mounting boss or seal that allows coolant to weep onto the connector pins.



How to diagnose and fix it

- 1 Inspect the sensor B connector and the module harness for corrosion, loose pins, or pushed-back terminals, and clean or repair as needed.
- 2 Check the coolant level and condition, then pressure-test the cooling system to rule out air pockets or leaks that cause erratic sensor readings.
- 3 Back-probe the sensor B signal wire at the module and wiggle the harness while watching live data to expose an intermittent open or short.
- 4 Measure the sensor's resistance at known temperatures and compare it to the manufacturer's specification to confirm the thermistor is stable.
- 5 Perform a voltage drop test on the sensor ground and reference circuits to rule out a shared ground fault causing the erratic signal.
- 6 Replace the coolant temperature sensor B only after electrical and cooling system checks confirm the sensor itself is faulty.
- 7 Clear the codes and complete a drive cycle that brings the battery pack up to operating temperature, then verify the live data remains smooth and the code does not return.

Intermittent sensor faults that fool technicians

- A coolant temperature sensor B circuit can set this code even when the sensor is electrically sound, because air pockets from a low coolant level mimic an erratic thermistor.
- Technicians often replace the sensor first, but a chafed signal wire near the battery pack enclosure is a more common cause of intermittent P0CD9 than a failed sensor.
- The battery energy control module may substitute a default temperature value when the signal is erratic, so the vehicle can drive normally and hide the fault until the next key cycle.
- A poor ground shared with other low-voltage sensors on the pack can produce erratic readings on sensor B without any fault in the sensor B circuit itself.
- This code does not always mean the battery pack is overheating; it only reports that the temperature signal is unreliable, so cooling system repairs should follow confirmation of the electrical fault.

Can I keep driving with P0CD9?

You can usually continue driving to a workshop because the module defaults to a safe strategy, but avoid sustained high-speed driving or rapid charging until the fault is repaired. If the dashboard displays a stop driving message or power output is reduced, pull over safely and arrange a tow.



Tools that help

- OBD-II scan tool with live data and hybrid battery parameter access
- Digital multimeter with back-probe pins
- Manufacturer service information for sensor resistance specifications and connector pinouts
- Cooling system pressure tester
- Insulated hand tools and personal protective equipment for high-voltage safety

Reading P0CD9

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
C	Hybrid propulsion.
D9	The exact fault within that area.

Often seen with

P0A0D High Voltage System Interlock Circuit A High · **P0C00** Drive Motor A Current Low · **P0CD8** Hybrid/EV Battery Pack Coolant Temperature Sensor B Circuit · **P0CDA** Drive Motor A Position Sensor Circuit C Circuit · **P0CDB** Drive Motor A Position Sensor Circuit C Range/Performance

See it working

Watch the animated explainer [Engine Cooling System Trainer: How Engines Stay Cool](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0cd9/>

