

GENERIC · POWERTRAIN

P0CD5

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0CD5

Hybrid/EV Battery Pack Coolant Temperature Sensor B Circuit

P0CD5 indicates that the hybrid or electric vehicle battery pack coolant temperature sensor B circuit is reporting a fault, such as an open, short, or out-of-range signal. The computer compares the sensor's voltage to expected values and sets this code when the reading is implausible or absent, which can affect battery thermal management.

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

Symptoms you may notice

- Illumination of the check engine light or hybrid system warning light, often with no other noticeable symptoms.
- Reduced electric driving range or performance as the vehicle limits power to protect the battery.
- A message on the dashboard indicating a hybrid system fault or battery temperature warning.
- In some cases, the vehicle may refuse to start or enter a limp mode.
- Unusual fan noise from the battery cooling system as it runs at maximum speed.
- Inconsistent state of charge readings or unexpected shutdown of the hybrid system.

Common causes, most likely first

- 1 Faulty coolant temperature sensor B, such as an open or shorted thermistor.
- 2 Damaged or corroded wiring or connector at the sensor or harness.
- 3 Poor electrical connection at the sensor due to loose pins or contamination.
- 4 Failed coolant temperature sensor circuit inside the battery pack, including a break in the wiring.
- 5 Malfunctioning battery energy control module (BECM) or hybrid control module not reading the sensor correctly.
- 6 Coolant level low or air pockets causing the sensor to read incorrectly, though this is less common.
- 7 Aftermarket or incorrect sensor installed previously, leading to signal mismatch.



How to diagnose and fix it

- 1 Use a scan tool to retrieve all stored codes and freeze-frame data, then clear codes and test-drive to see if P0CD5 returns.
- 2 Visually inspect the sensor B and its wiring for damage, corrosion, or loose connections, and repair as needed.
- 3 Measure the resistance of the coolant temperature sensor B with a multimeter and compare to specifications; replace if out of range.
- 4 Check the sensor reference voltage and ground at the connector with a multimeter to verify circuit integrity.
- 5 Perform a voltage drop test on the sensor signal circuit to detect high resistance or opens.
- 6 If the circuit and sensor test good, diagnose the battery energy control module or hybrid control module for internal faults.
- 7 After repairs, clear codes and verify the sensor reading matches actual coolant temperature using live data.

Battery coolant sensor faults often misdiagnosed

- A common mistake is replacing the sensor without checking the wiring harness, which often suffers from chafing or corrosion in hybrid battery compartments.
- The code can be set by a low coolant level or air pocket causing the sensor to read outside the expected range, so always check coolant condition and level first.
- Some vehicles use multiple coolant temperature sensors for the battery pack; P0CD5 specifically refers to sensor B, so do not confuse it with sensor A or the motor electronics coolant sensor.
- Intermittent faults may be caused by a poor connection that only acts up under vibration or temperature changes, so wiggle-test the harness while monitoring live data.
- Replacing the battery pack coolant temperature sensor often requires disconnecting the high-voltage battery, which demands proper safety procedures and insulated tools.

Can I keep driving with P0CD5?

It is not recommended to continue driving with this code because the battery pack may not be properly cooled, leading to overheating and potential damage. If you must drive, avoid heavy acceleration and long trips, and have the vehicle inspected promptly.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Insulated hand tools for high-voltage safety
- Wiring diagram for the specific vehicle
- Coolant refractometer or hydrometer



Reading P0CD5

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

Often seen with

P0A0D High Voltage System Interlock Circuit A High · **P0A1F** Battery Energy Control Module A Performance · **P0CD4** Charge Port Door A Unlock Control Circuit High · **P0CD6** Hybrid/EV Battery Pack Coolant Temperature Sensor B Circuit · **P0CD7** Hybrid/EV Battery Pack Coolant Temperature Sensor B Circuit

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/p0cd5/>

