



P0CD6

Hybrid/EV Battery Pack Coolant Temperature Sensor B Circuit Range/Performance

P0CD6 indicates that the hybrid or electric vehicle battery pack coolant temperature sensor B circuit is reporting a range or performance problem, meaning the voltage signal from that sensor does not correlate with expected values under current conditions. The computer has detected that the sensor's output is outside the plausible range or is not changing as the coolant temperature should, which can affect battery thermal management.

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 with no other noticeable symptoms.
- Reduced electric driving range or power output if the battery management system enters a protective mode.
- Active or intermittent cooling fan operation that seems abnormal, such as running constantly or not at all.
- A warning message on the dashboard indicating a hybrid system fault or battery temperature issue.
- Possible reduced charging rate or failure to accept a charge on plug-in models.

Common causes, most likely first

- 1 Faulty battery pack coolant temperature sensor B, such as an open or shorted internal element.
- 2 Damaged or corroded wiring or connector at the sensor or along the harness to the battery management module.
- 3 Coolant level low or air pockets in the battery cooling circuit causing inaccurate temperature readings.
- 4 A stuck or faulty coolant thermostat or flow control valve preventing proper coolant circulation.
- 5 Contamination or degradation of the battery coolant itself, affecting heat transfer and sensor response.
- 6 Failed battery management module or control unit that processes the sensor signal.
- 7 Poor electrical ground connection shared with the sensor circuit.



How to diagnose and fix it

- 1 Use a scan tool to read the live data for battery coolant temperature sensor B and compare it with other temperature sensors and ambient conditions.
- 2 Visually inspect the sensor, its connector, and the wiring harness for damage, corrosion, or loose pins, and repair as needed.
- 3 Check the battery coolant level and condition, and bleed the cooling system if air pockets are suspected.
- 4 Test the sensor's resistance or voltage output with a multimeter and compare to specifications, replacing it if out of range.
- 5 Verify coolant flow through the battery pack by checking the operation of the thermostat and flow control valve.
- 6 Perform a voltage drop test on the sensor ground and signal circuits to rule out high resistance.
- 7 If all external checks pass, diagnose or replace the battery management module or have it reprogrammed as required.

Before you replace the battery coolant sensor

- A low coolant level or trapped air in the battery cooling circuit is a frequent cause of this code because the sensor cannot read the true coolant temperature.
- The sensor B circuit may share a common ground with other sensors, so a bad ground can set this code along with others, leading to misdiagnosis.
- On some vehicles, the battery coolant temperature sensor is part of a combined sensor assembly, and replacing just the sensor may not be possible.
- The code can be set by a coolant flow problem rather than an electrical fault, so always verify that the coolant is actually circulating before condemning the sensor.
- After repairs, the battery management system may require a relearn or adaptation procedure to clear the code and restore normal operation.

Can I keep driving with P0CD6?

It is generally safe to drive with this code if the vehicle is not in a reduced power mode, but avoid aggressive driving or fast charging until the fault is repaired. Prolonged driving with a faulty battery temperature reading can lead to overheating or inaccurate state-of-charge calculations, so schedule diagnosis soon.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Socket and ratchet set
- Coolant refractometer or test strips
- Vehicle service information for wiring diagrams and sensor specifications



Reading P0CD6

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- C** Hybrid propulsion.
- D6** The exact fault within that area.

Often seen with

P0A0D High Voltage System Interlock Circuit A High · **P0A1F** Battery Energy Control Module A Performance · **P0C73** Hybrid Battery Pack Cooling Pump Performance · **P0CD5** 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/p0cd6/>

