

GENERIC · POWERTRAIN

P0C43

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0C43

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

P0C43 indicates that the hybrid or electric vehicle battery pack coolant temperature sensor A circuit is reporting a temperature value that is outside the expected range or behaving erratically, rather than being completely open or shorted. The computer compares the sensor signal against plausible limits and other temperature sensors, and it sets this code when the signal does not correlate with expected battery thermal behavior.

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 service vehicle soon message, often with no other noticeable symptoms.
- Reduced hybrid system power or a forced limp mode if the battery management system cannot trust the temperature reading.
- Active grille shutters or cooling fans may run continuously or not at all, depending on the failure mode.
- Inconsistent state of charge readings or unexpected battery cooling system activation.
- In rare cases, a warning to pull over safely if the battery pack temperature is deemed unsafe.

Common causes, most likely first

- 1 Faulty battery pack coolant temperature sensor A, including internal drift or intermittent connection.
- 2 Damaged or corroded wiring harness or connector at the sensor or battery management module.
- 3 Low or contaminated battery coolant, or air pockets in the cooling circuit causing poor heat transfer.
- 4 Sticking or failed coolant thermostat or flow control valve in the battery cooling loop.
- 5 Software calibration issue in the battery management system or a faulty control module.
- 6 Debris or blockage in the coolant passage around the sensor, leading to inaccurate local temperature readings.



How to diagnose and fix it

- 1 Scan all modules for stored codes and freeze-frame data, and verify the coolant temperature sensor reading with a scan tool against actual coolant temperature using an infrared thermometer.
- 2 Inspect the sensor connector and wiring for corrosion, chafing, or loose pins, and perform a wiggle test while monitoring the sensor signal.
- 3 Check battery coolant level and condition, and pressure-test the cooling system for leaks or air intrusion.
- 4 Test the coolant temperature sensor resistance at known temperatures and compare with specifications, replacing it if out of range.
- 5 Verify operation of the coolant pump, thermostat, and flow control valve in the battery cooling circuit.
- 6 If the sensor and wiring are good, check for technical service bulletins or software updates for the battery management system.
- 7 As a last step, diagnose the battery management module or control module for internal faults before replacement.

Coolant sensor faults that mimic battery failure

- A skewed coolant temperature sensor can cause the battery management system to misjudge the pack temperature, leading to unnecessary derating or charging limitations that owners often mistake for a failing battery pack.
- Air pockets in the battery coolant loop after a coolant service are a common cause of this code because the sensor reads steam or air temperature instead of liquid temperature.
- The code can be set by a coolant flow problem even when the sensor itself is accurate, so replacing the sensor without checking pump and valve operation often leads to a repeat repair.
- Intermittent wiring faults at the sensor connector can set P0C43 without leaving a permanent failure, so a thorough wiggle test and terminal tension check are essential.
- Some vehicles use multiple coolant temperature sensors for the battery pack, and a fault in sensor A may be masked by sensor B until the system performs a rationality check under specific conditions.

Can I keep driving with P0C43?

You can usually continue driving if the only symptom is a warning light and the vehicle has full power, but avoid aggressive driving or fast charging until the fault is repaired. If the vehicle enters limp mode or displays a high battery temperature warning, stop safely and seek professional diagnosis.



Tools that help

- OBD-II scan tool with hybrid/EV battery data capabilities
- Infrared thermometer
- Digital multimeter
- Wiring diagram and service information for the specific vehicle
- Coolant pressure tester
- Socket and wrench set for sensor replacement

Reading P0C43

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

Often seen with

P0A0D High Voltage System Interlock Circuit A High · **P0A1F** Battery Energy Control Module A Performance · **P0C44** Hybrid/EV Battery Pack Coolant Temperature Sensor A Circuit · **P0C45** Hybrid/EV Battery Pack Coolant Temperature Sensor A Circuit · **P0C46** Hybrid/EV Battery Pack Coolant Temperature Sensor A 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/p0c43/>

