

GENERIC · POWERTRAIN

P0C88

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0C88

Hybrid/EV Battery Temperature Sensor I Circuit

P0C88 indicates that the hybrid or electric vehicle's battery management system has detected an abnormal signal from the temperature sensor circuit labeled 'I' that monitors the high-voltage battery pack. The computer compares the sensor's voltage or resistance reading against expected values and flags the circuit when the signal falls outside the valid range or behaves erratically.

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 intermittent.
- Reduced electric-only driving range or the vehicle refusing to enter EV mode.
- A noticeable drop in fuel economy as the hybrid system limits battery usage.
- In rare cases, the vehicle may enter a fail-safe mode with reduced power output.
- Charging may be disabled or limited on plug-in hybrid models if the battery temperature cannot be verified.

Common causes, most likely first

- 1 A faulty battery temperature sensor (sensor 'I') that has drifted out of specification or failed internally.
- 2 Damaged or corroded wiring in the sensor circuit, often at connectors or where the harness passes near the battery pack.
- 3 A poor electrical connection at the sensor or at the battery management system connector, causing high resistance.
- 4 A short to ground or short to voltage in the sensor signal circuit due to chafed insulation.
- 5 An open circuit in the sensor wiring, possibly from a broken wire or a disconnected connector.
- 6 A failing battery management system (BMS) module that misreads the sensor signal.
- 7 Extreme ambient temperatures or a battery pack that is genuinely overheating, which can push the sensor signal beyond its normal range.



How to diagnose and fix it

- 1 Use an OBD-II scan tool to read the freeze-frame data and confirm the code is active, then check for any related codes in the hybrid system.
- 2 Visually inspect the battery temperature sensor and its wiring for obvious damage, corrosion, or loose connectors, especially around the battery pack.
- 3 Measure the resistance of the sensor with a multimeter and compare it to the manufacturer's specification for the current temperature.
- 4 Check the sensor signal circuit for continuity and for shorts to ground or voltage using a multimeter and wiring diagram.
- 5 If the sensor tests good, back-probe the BMS connector to verify the signal voltage is reaching the module correctly.
- 6 Replace the faulty sensor if it fails the resistance or voltage test, then clear the code and verify the repair with a test drive.
- 7 If the wiring and sensor are good but the code persists, diagnose the BMS module for internal faults or software issues.

What the battery temperature sensor code hides

- A common mistake is replacing the battery temperature sensor when the real problem is a corroded connector pin or a chafed wire that only acts up when the vehicle is moving.
- This code can be set by a battery pack that is genuinely overheating due to a cooling system fault, so always check the hybrid battery cooling fan and ducts before condemning the sensor.
- On some vehicles, the battery temperature sensors are wired in a series-parallel arrangement, and a single faulty sensor can skew the readings of others, making it hard to pinpoint which sensor is at fault.
- Intermittent P0C88 codes often appear after a battery pack service or accident repair where a connector was not fully seated, so check recent repair history.
- The code does not always mean the sensor is bad; a low 12-volt battery or a poor ground can cause the BMS to misinterpret sensor signals, so verify system voltage first.

Can I keep driving with P0C88?

You can generally continue driving if the only symptom is the warning light, but avoid heavy acceleration, sustained high speeds, and fast charging until the fault is repaired. If the vehicle enters a reduced-power mode or shows a high battery temperature warning, stop driving and have it towed to a qualified hybrid technician.



Tools that help

- OBD-II scan tool with hybrid system capability
- Digital multimeter
- Wiring diagram for the specific vehicle
- Insulation piercing probes or back-probe kit
- Socket set and trim removal tools for battery pack access

Reading P0C88

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

Often seen with

P0A9C Hybrid/EV Battery Temperature Sensor A Circuit Range/Perform · **P0AC4** Hybrid/EV Powertrain Control Module Requested MIL Illuminati · **P0AFA** Hybrid/EV Battery System Voltage Low · **P0C87** Hybrid/EV Battery Temperature Sensor G/H Correlation · **P0C89** Hybrid/EV Battery Temperature Sensor I Range/Performance

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/p0c88/>

