

GENERIC · POWERTRAIN

P0BCF

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0BCF

Generator Inverter Temperature Sensor A Circuit High

P0BCF indicates that the generator inverter temperature sensor A circuit is reporting a voltage higher than the manufacturer's expected range, which the control module interprets as an excessively hot or open circuit condition. The computer sets this code when the sensor signal voltage exceeds the calibrated threshold for a set time, typically indicating a wiring fault, sensor failure, or genuine overheating of the inverter.

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 no symptoms besides the warning light
- Reduced charging system performance or battery warning light
- Intermittent electrical power loss or flickering lights
- Possible limp mode or reduced engine power in some vehicles
- Overheating smell or heat from the inverter area in severe cases

Common causes, most likely first

- 1 Faulty generator inverter temperature sensor A
- 2 Open or high-resistance wiring in the sensor signal circuit
- 3 Corroded or damaged connector at the sensor or control module
- 4 Poor ground connection for the sensor circuit
- 5 Genuine overheating of the inverter due to cooling system issues
- 6 Failed control module (PCM, BCM, or dedicated inverter controller)

How to diagnose and fix it

- 1 Inspect the sensor connector and wiring for damage, corrosion, or loose pins
- 2 Measure sensor resistance and compare to manufacturer specifications
- 3 Check for open circuits or high resistance in the signal and ground wires
- 4 Verify sensor reference voltage and ground at the connector
- 5 Test the inverter cooling system for blockages or fan operation
- 6 Replace the generator inverter temperature sensor if faulty
- 7 Repair or replace damaged wiring or connectors, then clear codes and verify



What the code does not always mean

- A high voltage reading often indicates an open circuit rather than a genuinely overheated inverter, so wiring checks come before parts replacement.
- The sensor may share a ground with other components, and a bad ground can skew the reading without any sensor fault.
- Inverter overheating can be caused by a failing cooling fan or blocked cooling passages, which are often overlooked when the sensor itself tests good.
- Some vehicles require a relearn or calibration after sensor replacement, and skipping this step can cause the code to return.
- The code can be set by a momentary glitch, so always check for related history codes and freeze-frame data before diagnosing.

Can I keep driving with P0BCF?

You can usually drive with this code if the vehicle runs normally, but avoid heavy electrical loads and long trips until diagnosed. If the battery warning light is on or charging system performance is reduced, limit driving to reach a safe location or service center.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the specific vehicle
- Basic hand tools for connector and sensor access
- Infrared thermometer for checking inverter temperature

Reading P0BCF

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

Often seen with

P0562 System Voltage Low · **P0BCB** Hybrid/EV Battery Pack Cooling Fan 1 Sense Circuit Intermitt · **P0BCC** Generator Inverter Temperature Sensor A Circuit · **P0BCD** Generator Inverter Temperature Sensor A Circuit Range/Perfor · **P0BCE** Generator Inverter Temperature Sensor A Circuit Low



See it working

Watch the animated explainer [Car Relay Test Bench: Test 4-Pin and 5-Pin Relays](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0bcf/>

