



P0BCE

Generator Inverter Temperature Sensor A Circuit Low

P0BCE means the generator inverter's temperature sensor A circuit is reporting a voltage lower than the manufacturer expects for the current conditions. The computer detects this as an out-of-range low signal, which usually points to a wiring short to ground, a failed sensor, or a poor connection rather than an actual overheating event.

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

Symptoms you may notice

- Illuminated battery or check engine warning light, often with no other symptoms
- Reduced or disabled charging system output, leading to a battery that drains or a no-start condition
- A message on the dash advising the vehicle to stop safely or that charging has failed
- Intermittent warning light that appears over bumps or in wet weather due to a chafed wire
- Loss of accessory power or dimming lights if the inverter shuts down charging

Common causes, most likely first

- 1 Sensor A signal wire shorted to ground, often where the harness rubs against the engine or inverter housing
- 2 Failed generator inverter temperature sensor A, reading low resistance or open internally
- 3 Corroded, loose, or pushed-back terminal at the sensor or inverter connector
- 4 Damaged inverter control module internally pulling the sensor signal low
- 5 Moisture intrusion into the connector or sensor body causing a low-resistance path
- 6 Aftermarket or incorrect sensor installed during a previous repair



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data for P0BCE, then inspect the inverter harness for chafing, heat damage, and moisture
- 2 Disconnect the sensor A connector and check for corrosion, pushed pins, and tight terminal fit
- 3 Measure sensor A resistance and compare it to the manufacturer's temperature-resistance chart to confirm sensor health
- 4 With the sensor disconnected, check the signal wire for continuity to ground; a short indicates harness repair is needed
- 5 Back-probe the signal circuit at the inverter module and compare voltage with the sensor connected and disconnected to isolate sensor versus module
- 6 Repair or replace the faulty harness section or sensor, clear the code, and verify the temperature reading agrees with ambient after a cold soak
- 7 Road test with the scan tool logging inverter temperature to confirm the code does not return under load and vibration

Why this code rarely means real overheating

- A low signal code almost always indicates a circuit fault rather than a genuinely hot inverter, so replacing the inverter assembly first is a costly misdiagnosis.
- The sensor shares a connector with high-current charging cables on many designs, and heat cycling there commonly causes terminal tension loss that mimics a failed sensor.
- A chafed signal wire can short only when the engine moves under load, producing an intermittent code that never appears during a stationary inspection.
- Some charging systems disable the inverter entirely when this code sets, so a no-charge condition can appear with no temperature-related symptoms at all.
- Clearing the code without checking freeze-frame temperature data can hide a sensor that reads plausibly at idle but drifts low once the inverter warms up.

Can I keep driving with P0BCE?

If the warning light is on but the battery is charging normally, you can drive cautiously to a repair shop, but avoid long trips and heavy electrical loads. If the dash advises stopping or the charging system has shut down, park safely and arrange a tow to prevent a no-start or stall.

Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter with back-probe pins
- Manufacturer service information with temperature-resistance charts
- Wire terminal pick and crimping tools
- Insulation and harness repair tape



Reading P0BCE

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
B	Hybrid propulsion.
CE	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 · **P0BCF** Generator Inverter Temperature Sensor A Circuit High

See it working

Watch the animated explainer [How a Manual Transmission Works: Four-Speed Cutaway](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0bce/>

