

GENERIC · POWERTRAIN

P0C3B

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0C3B

DC/DC Converter Temperature Sensor A High

P0C3B indicates that the vehicle's control module has detected an abnormally high temperature reading from the DC/DC converter temperature sensor A circuit. The DC/DC converter changes high-voltage battery power to the lower voltage needed for the 12-volt system, and this code sets when the sensor signal exceeds the expected range for a set time.

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 or intermittent charging of the 12-volt battery, leading to dim lights or slow cranking
- The vehicle may enter a reduced-power or failsafe mode that limits electrical accessory operation
- Possible overheating smell or warning from the converter area in severe cases
- In some vehicles, the high-voltage system may disable and prevent the car from starting

Common causes, most likely first

- 1 Faulty DC/DC converter temperature sensor A that reads higher than actual temperature
- 2 Damaged or chafed wiring in the sensor signal or return circuit, causing a short to voltage or high resistance
- 3 Corroded or loose connector pins at the sensor or control module, skewing the temperature signal
- 4 Internal failure within the DC/DC converter assembly, such as a failing cooling system or actual overheating
- 5 Low or contaminated coolant in a liquid-cooled DC/DC converter, causing genuine high temperatures
- 6 A software calibration issue in the control module that misinterprets the sensor signal



How to diagnose and fix it

- 1 Use a scan tool to read the live temperature sensor data and compare it to ambient and actual converter temperature after a cold soak
- 2 Visually inspect the sensor connector and wiring for corrosion, chafing, or loose pins, and repair as needed
- 3 Check the coolant level and condition if the converter is liquid-cooled, and pressure-test the cooling circuit
- 4 Measure the sensor resistance or voltage at the sensor and at the control module to isolate a wiring or sensor fault
- 5 If the sensor is a separate serviceable part, replace it and clear the code; if integral to the converter, follow the manufacturer's service procedure
- 6 Verify the repair by clearing codes, performing a road test with accessories on, and confirming the temperature reading stays within normal range

Don't assume the converter is overheating

- A high temperature sensor code often comes from a simple wiring short or corroded connector rather than a failed converter, so always check the circuit before condemning the unit.
- On many hybrids and electric vehicles, the DC/DC converter shares its cooling loop with other high-voltage components, so a low coolant level elsewhere can trigger this code.
- The sensor may be integrated into the converter assembly on some models, making replacement expensive, but a reflash or calibration update can sometimes resolve a false high reading.
- Intermittent high readings can be caused by heat soak after the vehicle is shut off, so compare sensor values during a cold start before chasing a ghost.
- This code does not always mean the converter is damaged; it can set from a temporary overheat condition that corrected itself, leaving only a stored history code.

Can I keep driving with P0C3B?

You can usually drive the vehicle short distances to a repair shop, but avoid heavy electrical loads such as rear defroster, high fan speeds, and accessory inverters. If the vehicle enters a reduced-power mode or shows a high-voltage warning, stop driving and have it towed to prevent damage to the converter or 12-volt system.

Tools that help

- OBD-II scan tool with live data and graphing capability
- Digital multimeter with temperature probe
- Vehicle-specific service information for wiring diagrams and sensor specifications
- Basic hand tools for connector and panel access
- Coolant refractometer or test strips for liquid-cooled systems



Reading P0C3B

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- C** Hybrid propulsion.
- 3B** The exact fault within that area.

Often seen with

P0A94 DC/DC Converter A Performance · **P0C38** DC/DC Converter Temperature Sensor A Circuit · **P0C39** DC/DC Converter Temperature Sensor A Range/Performance · **P0C3A** DC/DC Converter Temperature Sensor A Low · **P0C3C** DC/DC Converter Temperature Sensor A Intermittent/Erratic

See it working

Watch the animated explainer [How Airbags Work: A 50 km/h Crash in Slow Motion](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0c3b/>

