



P0C3E

DC/DC Converter Temperature Sensor B Range/Performance

P0C3E indicates that the powertrain control module has detected an out-of-range or performance fault in the temperature sensor circuit for DC/DC Converter B, which is a device that steps one DC voltage up or down to another. The computer compares the sensor signal against expected values under specific operating conditions and flags the code when the reading stays outside the valid range or does not change as expected.

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 symptoms
- Reduced or disabled DC/DC converter output, which may prevent accessory loads from operating or charging a auxiliary battery
- A warning message on the dash indicating a charging system or power supply fault
- Intermittent electrical accessories or lights that dim or shut off unexpectedly
- The vehicle may enter a reduced power mode or disable certain non-essential electrical features

Common causes, most likely first

- 1 Faulty DC/DC converter temperature sensor B, either open, shorted, or drifting out of specification
- 2 Damaged or corroded wiring and connectors between the sensor and the control module
- 3 Poor electrical ground connection for the sensor or converter assembly
- 4 Internal fault in the DC/DC converter assembly that affects the sensor circuit or its reference voltage
- 5 Control module software calibration issue that misinterprets a valid sensor signal
- 6 Overheating of the DC/DC converter caused by excessive load or a cooling system fault, which pushes the sensor reading out of range



How to diagnose and fix it

- 1 Verify the code with a scan tool and check for any related codes in other modules before starting diagnosis
- 2 Inspect the sensor wiring and connectors for chafing, corrosion, or loose pins, and repair as needed
- 3 Measure the sensor resistance or voltage at the sensor connector and compare with the manufacturer's specification
- 4 Check the sensor reference voltage and ground circuit at the control module connector to rule out a module-side fault
- 5 Perform a voltage drop test on the ground circuit to confirm a clean return path
- 6 If the sensor signal is out of range, replace the temperature sensor and clear the code
- 7 If the sensor and wiring test good, follow the manufacturer's diagnostic flow for the DC/DC converter assembly, which may require module replacement or reprogramming

What the converter temperature sensor really does

- The temperature sensor on a DC/DC converter is often a negative temperature coefficient thermistor, so a resistance that rises with temperature instead of falling is a classic sign of a failed sensor that many technicians overlook.
- A loose or corroded ground for the converter housing can skew the sensor reading without setting a separate ground code, so always check ground integrity before condemning the sensor.
- This code can set from a momentary glitch during a low-voltage event such as a weak auxiliary battery, so clearing the code and verifying it does not return after a full drive cycle is a valid first step.
- On some vehicles the DC/DC converter temperature sensor is not serviceable separately from the converter assembly, so confirm part availability before removing components.
- A converter that is genuinely overheating from an external load fault can set this code even when the sensor is accurate, so inspect for shorted accessory circuits or blocked cooling ducts.

Can I keep driving with P0C3E?

You can usually drive the vehicle to a repair shop, but avoid relying on the DC/DC converter to power critical accessories or charge an auxiliary battery, and do not tow heavy loads or run high electrical demand until the fault is repaired.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter with temperature or resistance measurement
- Wiring diagram and connector pinout for the specific vehicle
- Back probe pins or breakout box for connector testing
- Infrared thermometer for verifying actual converter temperature



Reading P0C3E

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

Often seen with

P0A0D High Voltage System Interlock Circuit A High · **P0A94** DC/DC Converter A Performance · **P0C3D** DC/DC Converter Temperature Sensor B Circuit · **P0C3F** DC/DC Converter Temperature Sensor B Low · **U0111** Lost Communication With Battery Energy Control Module 'A'

See it working

Watch the animated explainer [How a Jet Engine Works: Two-Spool Turbofan](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0c3e/>

