

GENERIC · POWERTRAIN

P0C3F

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0C3F

DC/DC Converter Temperature Sensor B Low

P0C3F indicates that the vehicle's control module has detected an abnormally low signal from the temperature sensor monitoring the DC/DC converter, which is the component that steps high-voltage battery power down to charge the 12-volt system. The computer compares the sensor's voltage against expected ranges and flags this code when the reading falls below the calibrated minimum, suggesting a short to ground, an open circuit, or a failed sensor.

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 hard starting or dim lights
- The vehicle may enter a reduced-power mode or disable the DC/DC converter as a protective measure
- A warning message on the dash indicating a high-voltage system fault or charging system problem
- In rare cases, the 12-volt battery may drain completely if the converter shuts down

Common causes, most likely first

- 1 Faulty temperature sensor internal to the DC/DC converter
- 2 Damaged or corroded wiring harness between the sensor and the control module
- 3 Poor electrical connection at the sensor or control module connector
- 4 Short to ground in the sensor signal circuit
- 5 Failed DC/DC converter assembly (sensor integrated into the unit)
- 6 Control module software error or internal fault



How to diagnose and fix it

- 1 Perform a visual inspection of the DC/DC converter, its connectors, and the wiring harness for signs of damage, corrosion, or loose pins
- 2 Use a scan tool to read live data from the converter temperature sensor and compare it to ambient temperature after a cold soak
- 3 Check the sensor's reference voltage and ground circuits with a digital multimeter to confirm proper supply and no short to ground
- 4 Disconnect the sensor and measure its resistance (if applicable) and compare to manufacturer specifications
- 5 Inspect the control module connectors and perform a wiggle test on the harness while monitoring sensor data
- 6 If the sensor is integrated into the converter, follow the manufacturer's diagnostic flow for converter replacement or repair
- 7 After repairs, clear the code and verify the sensor reading returns to normal within the expected range

Don't overlook the converter's cooling system

- A low temperature reading can be caused by a poor connection at the converter's coolant temperature sensor rather than a failed converter, so always check connector pin tension first.
- Some vehicles use the same sensor signal for both converter temperature and battery pack cooling, so a fault in the shared circuit may set this code along with others.
- The code may set intermittently due to vibration or heat cycling, and a simple wiggle test of the harness often reveals the issue without replacing expensive parts.
- Replacing the DC/DC converter without verifying the sensor circuit can lead to a repeat failure if the root cause is a chafed wire or corroded ground.
- On many hybrids and electric vehicles, a low sensor reading may trigger a converter shutdown that also disables cabin heating or air conditioning, so address it promptly.

Can I keep driving with P0C3F?

It is generally safe to drive short distances to a repair shop, but avoid long trips or heavy electrical loads because the 12-volt battery may not charge properly and the vehicle could stall or leave you stranded. If the vehicle enters a reduced-power mode, have it towed to prevent further damage.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the specific vehicle
- Socket set and trim removal tools
- Contact cleaner and dielectric grease



Reading P0C3F

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

Often seen with

P0562 System Voltage Low · **P0A0D** High Voltage System Interlock Circuit A High · **P0A94** DC/DC Converter A Performance · **P0C3E** DC/DC Converter Temperature Sensor B Range/Performance · **P0C40** DC/DC Converter Temperature Sensor B High

See it working

Watch the animated explainer [Fuel Trims Explained: Short-Term and Long-Term](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0c3f/>

