



P0C3C

DC/DC Converter Temperature Sensor A Intermittent/Erratic

P0C3C means the powertrain control module (PCM) has detected an intermittent or erratic signal from the temperature sensor that monitors the DC/DC converter, which is the component that changes one direct current voltage to another. The PCM sets this code when the sensor's voltage reading jumps around or drops out unpredictably, rather than staying within a stable expected range.

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, especially if the fault is brief
- Reduced or disabled DC/DC converter output, which may prevent accessory charging or cause a low-voltage warning
- Intermittent electrical accessories such as interior lights or phone chargers cutting out
- A stored freeze-frame showing an abnormally high or low converter temperature at the moment the code set
- Possible limp-home or reduced-power mode on hybrid and electric vehicles that rely on the converter

Common causes, most likely first

- 1 Faulty DC/DC converter temperature sensor with an internal intermittent connection
- 2 Damaged or chafed wiring between the sensor and the PCM, often near heat sources or sharp edges
- 3 Corroded, loose, or water-intruded connector pins at the sensor or PCM
- 4 Poor ground connection for the sensor or converter housing causing a floating reference
- 5 Thermal cycling damage inside the converter that intermittently opens the sensor circuit when hot
- 6 PCM internal fault or software glitch misinterpreting a stable signal as erratic
- 7 Aftermarket accessories or improper repairs that disturbed the converter harness



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data to confirm when and how the erratic signal occurs
- 2 Inspect the sensor connector and harness for corrosion, chafing, and loose pins, then perform a wiggle test while watching live data
- 3 Measure sensor resistance and voltage at the sensor and at the PCM, comparing readings when cold and after warming the converter
- 4 Check the sensor ground circuit for excessive voltage drop under load
- 5 If wiring and grounds are good, replace the temperature sensor and clear the code
- 6 If the code returns with a new sensor, test the PCM connector and consider PCM replacement or reprogramming as a last step
- 7 After repair, road-test the vehicle through several warm-up cycles to verify the signal remains stable

Intermittent signals often hide in the harness

- A sensor that tests perfectly on a cold bench can still be the culprit because the intermittent open often appears only after heat soak from the converter.
- Technicians frequently replace the converter assembly when the real fault is a chafed wire behind the engine block that only shorts when the engine torques under load.
- This code can be set by a poor ground shared with other sensors, so check ground integrity before condemning the temperature sensor itself.
- On some vehicles, a low or weak 12-volt auxiliary battery causes voltage spikes that the PCM interprets as an erratic sensor signal, so always load-test the battery first.
- The code does not always mean the converter is overheating; it only means the temperature signal is unstable, and a stable but incorrect reading will set a different code.

Can I keep driving with P0C3C?

You can usually drive the vehicle with this code, but avoid long trips or heavy electrical loads until it is diagnosed because an intermittent converter fault can leave you with a discharged auxiliary battery. If the vehicle enters limp mode or shows a low-voltage warning, stop and have it towed.

Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter with min/max recording
- Back probe pins and wiring diagram for the converter circuit
- Heat gun or infrared thermometer to warm the converter during testing
- Battery load tester



Reading P0C3C

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

Often seen with

P0562 System Voltage Low · **P0A94** DC/DC Converter A Performance · **P0C3A** DC/DC Converter Temperature Sensor A Low · **P0C3B** DC/DC Converter Temperature Sensor A High · **P0C3D** DC/DC Converter Temperature Sensor B Circuit

See it working

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

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0c3c/>

