

GENERIC · POWERTRAIN

# P0E5C

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

## P0E5C

### DC/DC Converter Temperature Sensor C Circuit Intermittent/Erratic

P0E5C indicates that the powertrain control module has detected an intermittent or erratic signal from the temperature sensor circuit for the DC/DC converter, which is the component that steps high-voltage battery power down to charge the 12-volt system. The circuit is not failing outright but is dropping out or reporting implausible temperature readings at random intervals, so the module cannot trust the sensor data.

| 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
- Intermittent charging system warning light or fluctuating 12-volt accessory performance
- Reduced or disabled DC/DC converter output during certain driving conditions, leading to a battery drain warning
- Occasional electrical gremlins such as dimming lights or infotainment resets when the converter derates
- A stored history of intermittent communication or sensor codes that clear on their own
- In rare cases, the vehicle may enter a reduced-power mode if the converter temperature reading becomes implausible

#### Common causes, most likely first

- 1 A loose, corroded, or backed-out terminal in the converter temperature sensor connector
- 2 Chafed or intermittently shorted wiring in the sensor harness where it routes near hot or moving components
- 3 A failing temperature sensor element inside the DC/DC converter that opens or shorts only when hot or cold
- 4 Poor pin tension or water intrusion at the inline harness connector between the converter and the control module
- 5 A faulty DC/DC converter assembly where the internal sensor circuit board has a cold solder joint
- 6 Intermittent ground connection for the converter or sensor return circuit
- 7 Rarely, a control module with an intermittent internal driver for the sensor circuit



## How to diagnose and fix it

- 1 Inspect the converter temperature sensor connector and harness for corrosion, loose pins, or chafing, and repair as needed
- 2 Perform a wiggle test on the sensor harness while watching live temperature data to reproduce the intermittent signal
- 3 Measure sensor resistance and compare it to the manufacturer's temperature-resistance chart at ambient and operating temperature
- 4 Check the sensor reference voltage and ground return at the converter connector with a multimeter to rule out circuit faults
- 5 If the sensor is integral to the converter, verify the converter's internal sensor output with a scan tool and substitute a known-good sensor if accessible
- 6 Repair or replace the faulty harness section or converter assembly based on the test results
- 7 Clear the codes and perform a road test with live data logging to confirm the intermittent signal is gone

## Intermittent faults hide in connectors and heat

- A sensor that tests perfectly cold can still set this code once the converter reaches operating temperature, so always test both cold and hot.
- The intermittent nature means a simple resistance check at the bench often passes; live data logging during a test drive is the most reliable way to catch the dropout.
- Water intrusion into the converter connector is a common missed cause, especially on vehicles with underbody splash shields removed or damaged.
- This code does not always mean the converter is failing; a five-dollar terminal repair can resolve it, so do not condemn the converter before checking the harness.
- A weak 12-volt battery or poor chassis ground can cause erratic sensor readings that mimic a faulty converter temperature sensor.

## Can I keep driving with P0E5C?

You can usually continue driving short distances because the fault is intermittent, but avoid long trips or heavy electrical loads until it is repaired. If the charging warning light comes on or the 12-volt battery drains, stop and have the vehicle towed to prevent a no-start or stall.

## Tools that help

- OBD-II scan tool with live data and graphing capability
- Digital multimeter with temperature probe
- Back probe pins and jumper wires
- Manufacturer service information for temperature-resistance charts
- Socket and ratchet set for connector and component access



### Reading P0E5C

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- E** Hybrid propulsion.
- 5C** The exact fault within that area.

### Often seen with

**P0562** System Voltage Low · **P0A94** DC/DC Converter A Performance · **P0E5A** DC/DC Converter Temperature Sensor C Circuit Low · **P0E5B** DC/DC Converter Temperature Sensor C Circuit High · **P0E5D** DC/DC Converter Enable Circuit Intermittent/Erratic

### See it working

Watch the animated explainer [How a Starter Motor Works: Pre-Engaged Starter](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0e5c/>

