

GENERIC · POWERTRAIN

**P0E9C**

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

## P0E9C

# DC/DC Converter Voltage Sensor C Circuit High

P0E9C indicates that the powertrain control module has detected an abnormally high voltage signal on the circuit that monitors the DC/DC converter's voltage sensor C. The converter, which steps high-voltage battery power down to charge the 12-volt system, relies on this sensor to report its output, and a high signal tells the module the circuit is shorted to voltage or the sensor reference is out of range.

SYSTEM

**Powertrain**

CODE TYPE

**Generic (all makes)**

SEVERITY

**Medium**

FIX DIFFICULTY

**Professional**

AREA

**Hybrid propulsion**

## Symptoms you may notice

- Illumination of the check engine light or service vehicle soon message, often with no other noticeable symptoms
- A warning message on the dash indicating a fault with the hybrid or electric system
- The 12-volt battery may not charge properly, leading to a no-start or dead battery condition over time
- Reduced power or a limp-home mode if the module limits converter operation to protect the system
- Accessory systems such as lights, infotainment, or climate control may dim or behave erratically
- In some cases, the vehicle may refuse to enter ready mode or may shut down unexpectedly

## Common causes, most likely first

- 1 A short to voltage on the signal circuit between the DC/DC converter voltage sensor C and the control module
- 2 A faulty DC/DC converter voltage sensor C internal to the converter assembly
- 3 Corroded, loose, or damaged connector pins at the converter or control module
- 4 A defective control module that misinterprets the sensor signal or has an internal reference voltage fault
- 5 Water intrusion or physical damage to the wiring harness near the converter
- 6 An open ground circuit for the sensor, causing the signal to float high



## How to diagnose and fix it

- 1 Use a scan tool to verify the code and check for any related codes in other modules before clearing anything
- 2 Inspect the DC/DC converter and control module connectors for corrosion, loose pins, or pushed-out terminals
- 3 Measure the sensor signal voltage at the converter connector with a digital multimeter and compare it to the manufacturer's specification
- 4 Check the signal circuit for a short to voltage by disconnecting both ends and measuring resistance to battery positive
- 5 Verify the sensor ground circuit has low resistance to chassis ground to rule out an open ground
- 6 If the wiring and connectors are good, substitute a known-good converter or sensor and recheck the live data
- 7 After repairs, clear the code and perform a road test to confirm the voltage reading stays within the normal range

## What a high sensor C signal really means

- A high signal code often results from a short to voltage on the signal wire, not a failed converter, so always check the harness before condemning the unit.
- The DC/DC converter voltage sensor C may be part of a multi-sensor assembly, and a single failed sensor can set this code without affecting converter output.
- A weak or failing 12-volt battery can cause erratic sensor readings and set this code indirectly, so load-test the battery before deep diagnostics.
- Some vehicles require a relearn or calibration procedure after replacing the converter or control module, and skipping it can cause the code to return.
- This code can be set by a poor ground connection at the converter mounting point, which is easy to overlook when focusing on the signal wire.

## Can I keep driving with P0E9C?

You can usually drive the vehicle short distances to a repair shop, but avoid long trips or heavy electrical loads because the 12-volt system may not charge properly and could leave you stranded. If the vehicle enters limp mode or shows a hybrid system warning, stop driving and seek professional diagnosis.

## Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter with voltage and resistance measurement
- Wiring diagram for the specific vehicle
- Back probe pins or breakout box for connector testing
- Insulated hand tools for connector and component access



## Reading P0E9C

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- E** Hybrid propulsion.
- 9C** The exact fault within that area.

## Often seen with

**P0A0D** High Voltage System Interlock Circuit A High · **P0A94** DC/DC Converter A Performance · **P0E9A** DC/DC Converter Voltage Sensor C Circuit Range/Performance · **P0E9B** DC/DC Converter Voltage Sensor C Circuit Low · **P0E9D** DC/DC Converter Voltage Sensor C Circuit Intermittent/Errati

## See it working

Watch the animated explainer [Four-Stroke Engine Notebook: The Otto Cycle Explained](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0e9c/>

