

GENERIC · POWERTRAIN

P0E39

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0E39

DC/DC Converter Voltage Sensor B High

P0E39 means the powertrain control module has detected an abnormally high voltage signal from the sensor that monitors the output of a direct current to direct current (DC/DC) converter, which is the component that steps one DC voltage level up or down to another. The computer compares this signal against expected limits and sets the code when the reported voltage stays above the calibrated threshold for a set time.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

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 absent output from the DC/DC converter, which may leave a low-voltage system undercharged
- Electrical accessories such as lighting, infotainment, or power outlets behaving erratically or shutting down
- A battery warning light or charging system message appearing alongside the check engine light
- The vehicle entering a reduced-power or failsafe mode that limits certain electrical functions
- Intermittent electrical faults that appear and disappear with temperature or vibration

Common causes, most likely first

- 1 A faulty DC/DC converter voltage sensor that reports a higher voltage than actually present
- 2 Damaged or chafed wiring in the sensor signal circuit, including a short to voltage
- 3 Corroded, loose, or backed-out terminals at the converter, sensor, or control module connectors
- 4 An internal fault in the DC/DC converter causing genuinely high output voltage
- 5 A poor ground connection shared by the converter or sensor, skewing the signal reference
- 6 A software or calibration issue in the control module that misinterprets the sensor signal
- 7 A failed control module driver circuit for the sensor reference or signal return



How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, then record freeze-frame data for P0E39 before clearing anything
- 2 Inspect the DC/DC converter, its voltage sensor, and all related connectors for corrosion, looseness, or damage
- 3 Measure the actual converter output voltage with a digital multimeter and compare it to the sensor-reported value
- 4 Back-probe the sensor signal circuit and check for a short to voltage or an open circuit while wiggling the harness
- 5 Verify the sensor ground and reference voltage at the connector match the manufacturer's specification
- 6 If the signal circuit and grounds test good, substitute a known-good sensor or converter only after confirming the fault follows the part
- 7 After repair, clear codes and run the vehicle through the manufacturer's monitor readiness procedure to confirm the code does not return

What the converter sensor signal really tells you

- A high sensor signal often comes from a short to voltage in the harness rather than a failed converter, so always check the signal wire for contact with a power circuit before condemning the part.
- The DC/DC converter voltage sensor may be integrated into the converter assembly on some vehicles, meaning a sensor fault can require converter replacement, while on others it is a separate serviceable component.
- A weak or failing 12-volt battery can cause erratic converter operation and set this code indirectly, so load-test the battery and charging system before deeper diagnosis.
- This code can be stored by a control module that has lost its ground reference, causing the sensor signal to float high even though the converter is working correctly.
- After any repair, the code may remain stored until the converter monitor runs under specific conditions, so a short test drive may not be enough to confirm the fix.

Can I keep driving with P0E39?

The vehicle is usually safe to drive short distances to a repair shop, but avoid relying on electrical accessories and do not tow heavy loads or drive at length if the charging system warning is also present. If the vehicle enters a reduced-power mode or the battery voltage drops, stop driving and arrange a tow.



Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter with back-probe pins
- Manufacturer service information for wiring diagrams and voltage specifications
- Basic hand tools for connector and component access
- Battery load tester or conductance tester

Reading P0E39

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

Often seen with

P0562 System Voltage Low · **P0563** System Voltage High · **P0E38** DC/DC Converter Voltage Sensor B Low · **P0E3A** DC/DC Converter Voltage Sensor B Intermittent/Erratic · **P0E3B** Hybrid/EV Battery Coolant Pump Overspeed

See it working

Watch the animated explainer [How a MAF Sensor Works: Hot-Wire Airflow Explained](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0e39/>

