

GENERIC · POWERTRAIN

P0E97

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0E97

Drive Motor B Inverter Voltage Sensor B Circuit High

P0E97 indicates that the inverter for drive motor B has detected an abnormally high voltage on its dedicated sensor B circuit, which typically monitors a specific phase or internal bus voltage. The computer sets this code when the signal from that sensor exceeds the expected range for the operating conditions, often indicating a wiring fault, sensor failure, or internal inverter problem.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

High

FIX DIFFICULTY

Professional

AREA

Hybrid propulsion

Symptoms you may notice

- Illumination of the check engine light or hybrid system warning lamp
- Often no symptoms besides the warning light, especially if the fault is intermittent
- Reduced power or limp mode as the inverter limits motor output to protect components
- Possible stalling or failure to start if the hybrid system disables the motor
- In rare cases, a burning smell or visible damage to inverter wiring or connectors

Common causes, most likely first

- 1 Faulty voltage sensor B inside the drive motor B inverter
- 2 Damaged or chafed wiring in the sensor B circuit, including shorts to power or ground
- 3 Corroded or loose electrical connectors at the inverter or sensor
- 4 Internal inverter fault causing incorrect sensor readings
- 5 High-voltage cable or connector issues affecting the sensor reference voltage
- 6 Software or calibration error in the inverter control module (less common)

How to diagnose and fix it

- 1 Perform a visual inspection of the inverter wiring and connectors for damage, corrosion, or loose pins
- 2 Use a scan tool to check for related codes and freeze-frame data to confirm the fault conditions
- 3 Measure resistance and voltage on the sensor B circuit according to the manufacturer's service information
- 4 Check the sensor reference voltage and ground circuits for opens or shorts
- 5 If wiring and connectors are good, test or replace the voltage sensor B
- 6 If the sensor is integrated, replace the inverter assembly as required
- 7 Clear codes and perform a road test to verify the repair



Before you replace the inverter assembly

- A loose or corroded connector on the inverter can mimic a failed sensor, so always inspect and clean terminals before condemning expensive components.
- The code can be set by a momentary voltage spike during cranking or a weak 12-volt battery, so check battery health and charging system first.
- Some vehicles require a software update to correct false sensor readings, so check for technical service bulletins before replacing hardware.
- The sensor B circuit may share a reference voltage with other sensors; a fault elsewhere can pull down the reference and set this code.
- Inverter failures often produce additional codes for motor performance or high-voltage isolation, so a lone P0E97 is more likely a wiring or sensor issue.

Can I keep driving with P0E97?

Do not continue driving with this code active, as the hybrid system may disable the motor unexpectedly, leading to a loss of power. Have the vehicle towed to a qualified technician for diagnosis to avoid potential safety risks and further damage.

Tools that help

- OBD-II scan tool with hybrid capability
- Digital multimeter
- Oscilloscope for signal analysis
- Manufacturer service information for wiring diagrams and test procedures
- Insulation tester for high-voltage circuits
- Basic hand tools for connector and component access

Reading P0E97

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

Often seen with

P0A0A High Voltage System Interlock Circuit A · **P0A1F** Battery Energy Control Module A Performance · **P0C00** Drive Motor A Current Low · **P0E96** Drive Motor B Inverter Voltage Sensor B Circuit Low · **P0E98** Drive Motor B Inverter Voltage Sensor B Circuit Intermittent



See it working

Watch the animated explainer [How Regenerative Braking Works in Electric Cars](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0e97/>

