

GENERIC · POWERTRAIN

P0E25

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0E25

Drive Motor Inverter Temperature Sensor G Circuit Low

P0E25 indicates that the drive motor inverter temperature sensor G is reporting a voltage or signal that is lower than the expected range for the current operating conditions. The inverter controller monitors this sensor to protect the power electronics from overheating, and it sets the code when the signal circuit falls below a calibrated threshold, which usually points to a short to ground, an open circuit, or a failed sensor.

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.
- Reduced power output or a limp-home mode as the inverter limits current to protect itself from perceived overheating.
- Inconsistent or erratic temperature readings on a scan tool, sometimes showing implausibly low values.
- In rare cases, the vehicle may refuse to start or shift into gear if the inverter controller disables the drive system.
- Intermittent warning light activation over bumps or during wet weather if the fault is a wiring issue.

Common causes, most likely first

- 1 A short to ground in the sensor signal circuit, often from chafed or pinched wiring.
- 2 An open circuit in the sensor reference or signal return, such as a broken wire or corroded connector terminal.
- 3 A failed temperature sensor G inside the inverter assembly, reading lower than actual temperature.
- 4 Poor electrical connections at the inverter harness connector, including loose pins or water intrusion.
- 5 A faulty inverter controller or control module that misinterprets a valid sensor signal.
- 6 Aftermarket accessories or repairs that disturbed the inverter wiring harness.



How to diagnose and fix it

- 1 Connect a scan tool and record the freeze-frame data for P0E25, then clear the code and verify whether it returns immediately or only under specific conditions.
- 2 Visually inspect the inverter harness and connector for damage, corrosion, or loose pins, and repair any obvious wiring faults.
- 3 Measure the resistance of the temperature sensor G at the inverter connector and compare it to the manufacturer's specification for the ambient temperature.
- 4 Back-probe the sensor signal circuit and check for a short to ground or an open circuit with a multimeter, wiggle-testing the harness while watching the reading.
- 5 If the wiring and sensor resistance test good, substitute a known-good sensor or simulate the signal with a resistor box to see if the code changes.
- 6 Check for technical service bulletins or software updates for the inverter controller that address false temperature sensor codes.
- 7 Replace the faulty temperature sensor or inverter assembly as required, then clear codes and perform a road test to confirm the repair.

Why sensor G codes mislead technicians

- A low signal code often results from a short to ground in the wiring rather than a failed sensor, so always inspect the harness before condemning the inverter.
- Temperature sensor G is sometimes integrated into a larger inverter assembly, making replacement expensive; confirm the sensor itself is faulty before replacing the whole unit.
- The code can be set by a momentary glitch during a low-voltage event, such as a weak 12-volt battery, so check battery health and charging system operation first.
- Aftermarket electrical accessories tapped into the inverter circuit can introduce noise or resistance that mimics a sensor failure, so look for non-factory wiring.
- On some vehicles, the inverter controller uses multiple temperature sensors for redundancy, and a single low reading may not trigger a drivability symptom until the fault persists.

Can I keep driving with P0E25?

You can usually drive the vehicle with this code if it is the only symptom and the car runs normally, but avoid heavy acceleration or sustained high loads because the inverter may be limiting power to protect itself. If the vehicle enters limp mode or shows reduced power, schedule service promptly rather than continuing to drive.



Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter with resistance and voltage measurement
- Back-probe kit or breakout box for connector testing
- Resistor substitution box for signal simulation
- Vehicle-specific service information for wiring diagrams and sensor specifications

Reading P0E25

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

Often seen with

P0A3F Drive Motor A Position Sensor Circuit · **P0A78** Drive Motor A Inverter Performance · **P0C76** Hybrid/EV Battery System Discharge Time Too Long · **P0E24** Drive Motor Inverter Temperature Sensor G Circuit Range/Perf · **P0E26** Drive Motor Inverter Temperature Sensor G Circuit High

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/p0e25/>

