

GENERIC · POWERTRAIN

P0E2C

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0E2C

Drive Motor Inverter Temperature Sensor H Circuit Intermittent/Erratic

P0E2C means the hybrid or electric vehicle's drive motor inverter control module has detected an intermittent or erratic signal from the temperature sensor circuit labeled 'H', which monitors a specific internal component of the inverter. The computer sets this code when the sensor voltage momentarily drops out, spikes, or jumps in an unrealistic pattern rather than failing completely, so the fault is present only some of the time.

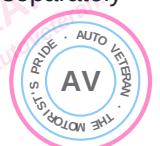
SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Professional	Hybrid propulsion

Symptoms you may notice

- Often no symptoms besides the warning light, because the fault is intermittent and the inverter may still cool normally
- Intermittent reduction in available electric power or a sudden limp-home mode that clears after a restart
- Brief illumination of the hybrid system warning or service vehicle soon light, sometimes accompanied by a chime
- Occasional cooling fan running at high speed for no apparent reason as the module reacts to a false hot reading
- A stored history of related over-temperature or sensor circuit codes that appear and disappear across drive cycles
- Rarely, a shutdown of the drive motor inverter that leaves the vehicle unable to move until the key is cycled

Common causes, most likely first

- A loose, corroded, or partially backed-out terminal in the inverter temperature sensor connector, causing an intermittent connection
- Chafed or internally broken wiring in the sensor harness where it routes near hot or vibrating inverter components
- A failing temperature sensor element inside the inverter that goes open or short only when hot or cold
- Poor pin tension or water intrusion at the inverter control module connector, especially after a steam cleaning or coolant leak
- Electrical interference from a failing inverter cooling pump or fan motor sharing the same ground path
- A software or calibration issue in the inverter control module that misinterprets a normal sensor signal during rapid temperature changes
- Rarely, an internal fault in the inverter control module's sensor input circuit that cannot be repaired separately from the module



How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, then record freeze-frame data for P0E2C and any companion codes before clearing anything
- 2 Inspect the inverter temperature sensor connector and harness for corrosion, loose pins, chafing, and heat damage, and perform a wiggle test while watching live sensor data
- 3 Back-probe the sensor signal and ground wires at the module and compare resistance or voltage readings against the manufacturer's temperature chart while heating and cooling the inverter
- 4 Check the inverter cooling system level and pump operation, because low coolant or a failing pump can create real temperature swings that mimic a sensor fault
- 5 Measure sensor resistance at the sensor itself and isolate whether the erratic signal comes from the sensor, the harness, or the module input
- 6 Repair or replace the faulty pigtail, terminal, or sensor as required, then clear codes and run a road test with live data logging to confirm the signal stays stable
- 7 If the harness and sensor test good, follow the manufacturer's diagnostic flow for the inverter control module, which may require reprogramming or replacement

What intermittent inverter sensor codes hide

- A temperature sensor circuit that is intermittent rather than open or shorted often passes every static resistance test, so the fault only shows up during a wiggle test or a live-data road test over rough pavement.
- Technicians frequently replace the inverter temperature sensor when the real problem is a corroded ground splice shared with the cooling pump, which pulls the sensor reference voltage down only when the pump runs.
- P0E2C can be set by a brief voltage spike from a failing 12-volt auxiliary battery or a poor chassis ground, so check charging system stability before condemning any inverter component.
- Because the code is generic, the 'H' circuit designation may refer to a different physical sensor on different makes, so always confirm the circuit location in that vehicle's service information rather than assuming a layout.
- Clearing the code without capturing freeze-frame data destroys the temperature, load, and soak-time conditions that would have pointed directly to a heat-related connector or sensor fault.

Can I keep driving with P0E2C?

You can usually continue driving to a workshop because the fault is intermittent, but avoid sustained high-speed or heavy-load driving that raises inverter temperature until it is diagnosed. If the vehicle enters limp mode or shuts down, pull over safely and have it towed rather than repeatedly restarting.



Tools that help

- OBD-II scan tool with live data and freeze-frame capture capability
- Digital multimeter with back-probe pins and a temperature-resistance chart
- Manufacturer service information for the inverter temperature sensor circuit
- Insulated hand tools and terminal release tools for connector repair
- Infrared thermometer to compare actual inverter temperature against sensor readings

Reading P0E2C

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
E	Hybrid propulsion.
2C	The exact fault within that area.

Often seen with

P0A3F Drive Motor A Position Sensor Circuit · **P0A93** Inverter A Cooling System Performance · **P0C73** Hybrid Battery Pack Cooling Pump Performance · **P0E2B** Drive Motor Inverter Temperature Sensor H Circuit High · **P0E2D** Internal Control Module Hybrid/EV Battery Monitor Performance

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/p0e2c/>

