

GENERIC · POWERTRAIN

P0E80

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0E80

Battery Charger B Temperature Sensor Circuit

P0E80 indicates that the powertrain control module has detected an abnormal signal from the temperature sensor built into the battery charger for the high-voltage battery pack. The computer compares the sensor's voltage against expected values and flags the circuit when the reading falls outside the valid range or behaves erratically.

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

Symptoms you may notice

- Illumination of the check engine light or a dedicated service vehicle soon message
- Often no symptoms besides the warning light, especially in mild weather
- Reduced or disabled high-voltage charging, particularly in hot or cold conditions
- A charging system warning or high-voltage battery fault message on the dashboard
- Longer charging times or the charger refusing to start
- In rare cases, the vehicle may enter a reduced-power limp mode

Common causes, most likely first

- 1 Faulty battery charger temperature sensor (internal failure or drift)
- 2 Damaged, corroded, or disconnected wiring or connector at the charger
- 3 Open or short circuit in the sensor signal or return circuit
- 4 Failed or overheating battery charger assembly affecting the sensor
- 5 Poor electrical ground for the charger module
- 6 Software or calibration issue in the control module (less common)

How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data for P0E80 before clearing anything
- 2 Inspect the charger harness and connector for chafing, corrosion, or loose pins
- 3 Measure sensor resistance and compare to the manufacturer's temperature chart
- 4 Check for continuity and shorts in the signal and return wires between sensor and controller
- 5 Verify the charger's ground connection and supply voltage under load
- 6 If the sensor is internal to the charger and not serviceable, replace the charger assembly
- 7 After repair, clear codes and perform a charging cycle to confirm the sensor reads correctly



What the charger temperature sensor really does

- The sensor protects the charger from overheating, so a fault can cause charging to be limited or disabled even when the charger still works.
- A common misdiagnosis is replacing the entire charger when only a corroded connector or chafed wire is at fault.
- The sensor is often a negative temperature coefficient thermistor, so resistance rises as temperature falls, making cold-weather behavior a useful clue.
- Some vehicles use the charger temperature signal for battery thermal management, so a fault can affect both charging and cooling strategies.
- After a charger replacement, some models require a calibration or learn procedure, and skipping it can set the code again.

Can I keep driving with P0E80?

You can usually drive the vehicle, but high-voltage charging may be limited or disabled, so avoid long trips that depend on charging and do not ignore overheating smells or charging faults. Have the circuit inspected promptly to prevent charger damage.

Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter with temperature probe
- Manufacturer service information for sensor resistance values
- Wire terminal pick and contact cleaner
- Insulation resistance tester (megohmmeter) for high-voltage wiring checks

Reading P0E80

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

Often seen with

P0C00 Drive Motor A Current Low · **P0D00** Control Pilot Charging Ventilation Switch Circuit/Open · **P0E81** Battery Charger B Temperature Sensor Circuit Range/Performan · **P0E82** Battery Charger B Temperature Sensor Circuit Low · **P0E83** Battery Charger B Temperature Sensor Circuit High



See it working

Watch the animated explainer [Car Relay Test Bench: Test 4-Pin and 5-Pin Relays](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0e80/>

