

GENERIC · POWERTRAIN

P2E4E

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2E4E

Battery Charger Coupler Temperature C Too High

P2E4E indicates that the battery charger coupler temperature sensor circuit has reported a temperature exceeding the safe limit, typically because the coupler or connector is overheating during high-power charging. The powertrain control module (PCM) or battery energy control module (BECM) sets this code when the sensor signal voltage corresponds to a temperature above the calibrated threshold, often as a protective measure to prevent damage to the charging system.

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

Symptoms you may notice

- Charging may stop prematurely or fail to start, especially during high-power sessions.
- A warning light or message on the dash indicating a charging system fault.
- The coupler or charge port may feel unusually hot to the touch after charging.
- Reduced charging speed or a derate in charging power.
- In some cases, no symptoms besides the stored code and warning light.

Common causes, most likely first

- Poor electrical connection at the coupler, such as loose pins, corrosion, or contamination, causing increased resistance and heat.
- Faulty temperature sensor integrated into the charge coupler or connector, sending an inaccurate high-temperature signal.
- Damaged or worn charging coupler assembly, including melted or discolored plastic from prior overheating.
- Wiring harness damage between the coupler temperature sensor and the control module, such as chafed wires or a short to ground.
- High ambient temperatures combined with repeated fast charging, pushing coupler temperatures beyond normal limits.
- Control module software issue or internal fault in the charging system controller misinterpreting sensor data.



How to diagnose and fix it

- 1 Inspect the charge coupler and connector for signs of overheating, corrosion, or damage; clean or replace as needed.
- 2 Measure the resistance of the coupler temperature sensor and compare to specifications to verify sensor integrity.
- 3 Check the wiring harness and connectors between the sensor and control module for continuity, shorts, and corrosion.
- 4 Monitor live sensor data during a charging session to see if the reported temperature rises abnormally.
- 5 Test the charging system under load to confirm whether the overheating is real or a sensor error.
- 6 Repair or replace the faulty coupler, sensor, or wiring as indicated by test results.
- 7 Clear the code and verify the repair by performing a charging session and confirming no recurrence.

Coupler Heat Codes Often Misdiagnosed

- A common oversight is replacing the temperature sensor when the real problem is a worn charge coupler that creates resistance and heat, so always inspect the physical connector first.
- The code can be set by a temporary overheating event during a single fast-charge session, and it may not indicate a permanent fault if the coupler cools and the code clears.
- Some vehicles use the coupler temperature signal to derate charging power, so a failing sensor can cause slow charging without any other drivability symptoms.
- Corrosion inside the charge port pins is a frequent cause that is easily missed because it is hidden from view until the connector is disassembled.
- After any repair, a charging session under similar conditions to the original fault is necessary to confirm the fix, as the code may not reset immediately.

Can I keep driving with P2E4E?

If the code is active and charging is interrupted or the coupler feels excessively hot, avoid high-power charging and have the system inspected promptly. You can usually drive the vehicle normally, but do not continue charging if overheating is suspected to prevent damage or fire risk.

Tools that help

- Digital multimeter for resistance and voltage checks
- OBD-II scan tool capable of reading live data and clearing codes
- Infrared thermometer to check coupler temperature
- Insulation resistance tester for wiring integrity
- Basic hand tools for connector and trim removal



Reading P2E4E

- P** Powertrain: engine, transmission and emissions.
- 2** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- E** Hybrid propulsion.
- 4E** The exact fault within that area.

Often seen with

P0A0D High Voltage System Interlock Circuit A High · **P0AA6** Hybrid/EV Battery Voltage System Isolation Fault
 · **P2E4D** Battery Charger Coupler Temperature Sensor C Circuit High · **P2E4F** Battery Charger Coupler Temperature Sensor D Circuit

See it working

Watch the animated explainer [Helicopter Flight Simulator: Learn the Three Controls](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2e4e/>

