

GENERIC · POWERTRAIN

P0E1E

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0E1E

Hybrid/EV Battery Pack Coolant Pump B Control Circuit Driver Current/Temperature Too High

P0E1E indicates that the hybrid or electric vehicle battery pack coolant pump B control circuit has detected excessive current or temperature in its driver stage, meaning the pump is drawing too much current or the control module is overheating. The computer monitors the driver circuit for overcurrent and thermal overload conditions and sets this code when those thresholds are exceeded, typically to protect the pump and wiring from damage.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Professional

AREA

Hybrid propulsion

Symptoms you may notice

- Illumination of the hybrid system warning light or service vehicle soon message
- Often no symptoms besides the warning light, especially if the pump still operates intermittently
- Reduced hybrid battery cooling performance, which may lead to power reduction or limited EV mode
- Possible overheating of the battery pack during heavy loads or fast charging
- Audible pump noise or lack of pump operation when the vehicle is in ready mode
- In some cases, the vehicle may enter a fail-safe mode with reduced power

Common causes, most likely first

- 1 Faulty coolant pump B, such as a seized bearing or internal short causing high current draw
- 2 Damaged or corroded wiring or connector at the pump, causing excessive resistance and heat
- 3 Short circuit to ground or power in the pump control circuit
- 4 Failed driver circuit inside the hybrid control module or pump control unit
- 5 Coolant leak or blockage leading to pump overheating and increased current
- 6 Debris or contamination in the coolant system causing pump strain
- 7 Software or calibration issue in the control module causing incorrect current monitoring



How to diagnose and fix it

- 1 Scan all modules for related codes and record freeze-frame data to understand when the fault occurs
- 2 Visually inspect the pump, connector, and wiring for signs of overheating, corrosion, or damage
- 3 Measure the resistance of the pump motor and compare to specification to check for internal faults
- 4 Check the control circuit for shorts to ground or power using a multimeter and wiring diagram
- 5 Test the pump operation with a bidirectional scan tool to command the pump on and off while monitoring current
- 6 Inspect the coolant level and condition, and check for blockages or leaks in the cooling circuit
- 7 If the pump and wiring test good, diagnose the control module driver circuit or replace the module as needed

Don't overlook the coolant pump driver circuit

- A pump that spins freely by hand can still draw excessive current due to internal winding faults that only appear when powered.
- The driver circuit inside the control module can fail independently of the pump, so replacing the pump without testing the driver may not fix the code.
- Coolant contamination or air pockets can cause the pump to overheat and trigger this code even when the pump itself is healthy.
- Intermittent wiring faults at the pump connector often cause this code to set only during certain driving conditions, such as high ambient temperatures or vibration.
- Some vehicles use the same pump for both battery and power electronics cooling, so a fault in one loop can affect the other and set related codes.

Can I keep driving with P0E1E?

It is generally safe to drive short distances to a repair shop, but avoid heavy acceleration, fast charging, and long trips until the fault is repaired because battery cooling may be compromised. If the hybrid system warning light flashes or power is reduced, stop driving and seek professional assistance.

Tools that help

- OBD-II scan tool with bidirectional control and live data capability
- Digital multimeter with resistance and current measurement
- Wiring diagram for the specific vehicle
- Coolant refractometer or hydrometer
- Insulation resistance tester (megohmmeter)



Reading P0E1E

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- E** Hybrid propulsion.
- 1E** The exact fault within that area.

Often seen with

P0A93 Inverter A Cooling System Performance · **P0A94** DC/DC Converter A Performance · **P0C73** Hybrid Battery Pack Cooling Pump Performance · **P0E1D** Hybrid/EV Battery Pack Coolant Pump B Control Performance · **P0E1F** Hybrid/EV Battery Pack Coolant Pump A Control Circuit Driver

See it working

Watch the animated explainer [Engine Cooling System Trainer: How Engines Stay Cool](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0e1e/>

