

GENERIC · POWERTRAIN

P2E79

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2E79

Hybrid/EV Electronics Coolant Pump C Performance

P2E79 indicates that the hybrid or electric vehicle's electronics coolant pump C is not performing as expected, meaning the pump is not moving enough coolant or is not responding correctly to commands. The computer monitors the pump's speed, current draw, or the resulting temperature changes and sets this code when performance falls outside the expected range for the given operating conditions.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Hybrid propulsion

Symptoms you may notice

- Illumination of the check engine light or a hybrid system warning light, often with no other noticeable symptoms.
- Reduced power or a forced limp mode as the vehicle protects the electronics from overheating.
- Overheating of the hybrid/EV electronics, which may trigger additional warnings or shutdowns.
- Audible whining or humming from the coolant pump that changes with speed or stops entirely.
- Inconsistent cabin heating or cooling if the same coolant loop serves climate control.
- In rare cases, a burning smell or visible coolant leaks near the pump or hoses.

Common causes, most likely first

- 1 Low coolant level or air trapped in the cooling system, preventing the pump from moving fluid effectively.
- 2 A failing coolant pump C, such as worn brushes, a seized bearing, or internal electrical faults.
- 3 Damaged or corroded wiring and connectors at the pump, causing high resistance or intermittent power.
- 4 A blown fuse or faulty relay that supplies power to the pump circuit.
- 5 A restricted or clogged coolant passage, radiator, or heat exchanger reducing flow.
- 6 A software or control module issue misinterpreting pump performance signals.
- 7 Debris or contamination in the coolant damaging the pump impeller or seals.



How to diagnose and fix it

- 1 Check the coolant level and condition, and pressure-test the system for leaks; top up or flush as needed.
- 2 Inspect the pump's electrical connector and wiring for corrosion, damage, or loose pins, and repair as required.
- 3 Test the pump circuit for power and ground with a multimeter, including fuses and relays, and replace faulty components.
- 4 Command the pump on with a scan tool and verify actual pump speed or current draw against the commanded value.
- 5 Perform a coolant system bleed procedure to remove trapped air, then clear the code and retest.
- 6 If the pump fails to respond or draws excessive current, replace the coolant pump C and refill/bleed the system.
- 7 After repairs, clear codes and road-test the vehicle to confirm the pump meets performance expectations and the code does not return.

Coolant pump C performance pitfalls

- A low coolant level or air pocket is a common cause of this code, so always verify the system is full and properly bled before condemning the pump.
- The pump may test fine statically but fail under load or when hot; perform live data monitoring during a road test to catch intermittent performance issues.
- Corroded connectors or chafed wiring near the pump are often overlooked, especially on vehicles exposed to road salt or debris.
- This code can be set by a restricted coolant passage or a failing thermostat that prevents proper flow, so inspect the entire cooling loop.
- After replacing the pump, some vehicles require a scan-tool relearn or bleed procedure to avoid repeat codes.

Can I keep driving with P2E79?

It is not advisable to continue driving with this code because the electronics may overheat, leading to reduced power or a sudden shutdown. If you must drive, keep trips short and avoid heavy loads or high speeds, and monitor for warning lights.

Tools that help

- Scan tool with bidirectional control and live data
- Digital multimeter
- Coolant pressure tester
- Hose clamp pliers
- Funnel for bleeding coolant system
- Basic socket and wrench set



Reading P2E79

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

Often seen with

P0A3C Drive Motor A Inverter Over Temperature · **P0A93** Inverter A Cooling System Performance · **P0C73** Hybrid Battery Pack Cooling Pump Performance · **P2E78** Hybrid/EV Battery Pack Coolant Temperature Sensor D Circuit · **P2E7A** Hybrid/EV Electronics Coolant Pump C Overspeed

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/p2e79/>

