

GENERIC · POWERTRAIN

P0CE2

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0CE2

Hybrid/EV Battery Pack Coolant Control Valve A Control Circuit Low

P0CE2 indicates that the hybrid or electric vehicle battery pack coolant control valve A control circuit has been detected as low by the vehicle's control module. The computer monitors the electrical circuit that commands the valve and has seen a voltage or current condition below the expected range, which can prevent proper coolant flow through the battery pack.

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 service vehicle soon message
- Often no symptoms besides the warning light
- Reduced hybrid/EV performance or power output
- Battery pack overheating warning or reduced charging rate
- Cooling fan running excessively or not at all
- In some cases, the vehicle may enter a limp mode

Common causes, most likely first

- 1 Faulty coolant control valve A (sticking, seized, or internally shorted)
- 2 Damaged or corroded wiring harness or connector at the valve
- 3 Open or short to ground in the control circuit
- 4 Failed control module driver for the valve circuit
- 5 Poor electrical connection at the control module
- 6 Aftermarket or incorrect valve installed previously

How to diagnose and fix it

- 1 Inspect the valve connector and wiring for corrosion, damage, or loose pins
- 2 Check the control circuit for continuity and short to ground using a multimeter
- 3 Test the valve actuator with a known-good signal or scan tool bidirectional control
- 4 Verify power and ground supplies to the control module
- 5 Replace the coolant control valve if electrically faulty
- 6 Repair or replace damaged wiring harness sections
- 7 Clear codes and perform a road test to confirm the repair



What the low circuit code really means

- A low circuit code often results from a poor ground connection rather than a failed valve, so inspect ground points before condemning the valve.
- The valve may be mechanically stuck and drawing low current, which the module interprets as a circuit fault even though the wiring is intact.
- Some vehicles set this code intermittently due to coolant contamination or debris in the valve, so a flush may be needed after replacement.
- The control module may command the valve to a default position when the fault is present, masking symptoms until the code is cleared.
- Always check for technical service bulletins (TSBs) for the specific vehicle, as some models have known connector issues.

Can I keep driving with P0CE2?

It is generally safe to drive short distances to a repair shop, but avoid aggressive driving or heavy loads that increase battery heat. Prolonged driving with this code can lead to battery overheating and reduced performance, so schedule diagnosis soon.

Tools that help

- OBD-II scan tool with bidirectional control
- Digital multimeter
- Wiring diagram for the specific vehicle
- Socket set and trim removal tools
- Test light or power probe

Reading P0CE2

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
C	Hybrid propulsion.
E2	The exact fault within that area.

Often seen with

P0A0D High Voltage System Interlock Circuit A High · **P0A93** Inverter A Cooling System Performance · **P0CE1** Hybrid/EV Battery Pack Coolant Control Valve A Stuck On · **P0CE3** Hybrid/EV Battery Pack Coolant Control Valve A Control Circu · **P0CE4** Hybrid/EV Battery Pack Coolant Control Valve Position Sensor



See it working

Watch the animated explainer **Four-Stroke Engine Cutaway: Intake to Exhaust** on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0ce2/>

