

GENERIC · POWERTRAIN

P0CE6

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0CE6

Hybrid/EV Battery Pack Coolant Control Valve Position Sensor Circuit Low

P0CE6 indicates that the hybrid or electric vehicle battery pack coolant control valve position sensor circuit is reporting a voltage below the expected range, which the control module interprets as a low signal. The computer has detected that the sensor feedback voltage is lower than the calibrated minimum for the current valve command, suggesting a short to ground, an open circuit, or a faulty sensor.

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 hybrid system warning light
- Often no symptoms besides the warning light
- Reduced hybrid system performance or forced limp mode
- Inability to maintain proper battery pack temperature, leading to reduced charging or discharging power
- Possible overheating warning if coolant flow is compromised
- Inconsistent cabin climate control if the valve also manages HVAC coolant flow

Common causes, most likely first

- 1 Faulty coolant control valve position sensor
- 2 Damaged or chafed wiring harness to the sensor
- 3 Corroded or loose electrical connector at the sensor
- 4 Short to ground in the sensor signal circuit
- 5 Failed coolant control valve actuator causing the sensor to read incorrectly
- 6 Contaminated coolant or debris obstructing valve movement
- 7 Internal fault in the hybrid/EV battery pack control module



How to diagnose and fix it

- 1 Perform a visual inspection of the sensor, connector, and wiring for damage or corrosion
- 2 Check the sensor reference voltage and ground circuits with a digital multimeter
- 3 Measure the sensor signal voltage while manually moving the valve through its range
- 4 Compare live sensor data against the commanded valve position using a scan tool
- 5 Test the coolant control valve actuator for proper operation and free movement
- 6 Repair or replace damaged wiring or connectors as needed
- 7 Replace the coolant control valve position sensor or the complete valve assembly if faulty

When the sensor is not the real culprit

- A low signal code often results from a short to ground in the wiring, not a failed sensor, so always check the harness before replacing parts.
- Coolant contamination or debris can cause the valve to stick, making the sensor report an out-of-range position that sets this code.
- The same circuit may be shared with other sensors, so a fault elsewhere can pull the signal low and trigger P0CE6.
- After repairs, the control module may require a relearn or calibration procedure for the valve position to clear the code and restore normal operation.
- In some vehicles, a weak battery or charging system issue can cause erratic sensor readings that mimic a low signal fault.

Can I keep driving with P0CE6?

It is generally safe to drive with this code if the vehicle is not in limp mode and no overheating warnings are present, but avoid heavy acceleration or long trips until diagnosed. If the hybrid system warning is active or performance is reduced, seek service promptly to prevent battery pack damage.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the specific vehicle
- Basic hand tools for connector and component access
- Vacuum pump or coolant refill kit if valve replacement requires coolant drain



Reading P0CE6

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- C** Hybrid propulsion.
- E6** The exact fault within that area.

Often seen with

P0A0D High Voltage System Interlock Circuit A High · **P0A93** Inverter A Cooling System Performance · **P0CE5** Hybrid/EV Battery Pack Coolant Control Valve Position Sensor · **P0CE7** Hybrid/EV Battery Pack Coolant Control Valve Position Sensor · **P0CE8** 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/p0ce6/>

