



P0CDA

Drive Motor A Position Sensor Circuit C Circuit

P0CDA indicates that the controller for drive motor A has detected a fault in the electrical circuit for position sensor C, which is one of the feedback channels used to determine the rotor's angular position. The computer compares the signals from multiple position sensors and sets this code when sensor C's circuit does not behave as expected, either due to an open, short, or implausible signal.

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

Symptoms you may notice

- Illumination of the check engine light or service vehicle soon message, often with no other noticeable symptoms.
- Reduced power or a limp-home mode, as the controller may limit motor output to protect the system.
- Rough operation or hesitation during acceleration, especially from a stop.
- Inability to start or move the vehicle if the fault prevents the controller from determining rotor position.
- Intermittent stalling or sudden loss of drive while in motion, though this is less common.
- A warning message on the dashboard specific to the hybrid or electric drive system.

Common causes, most likely first

- 1 Damaged or chafed wiring in the position sensor C circuit, often due to vibration or routing issues.
- 2 Corroded or loose electrical connectors at the sensor or controller, leading to intermittent signals.
- 3 Internal failure of position sensor C itself, such as a failed hall-effect element or winding.
- 4 Faulty controller software or hardware that misinterprets the sensor signal, sometimes requiring reprogramming or replacement.
- 5 Contamination or debris interfering with the sensor's magnetic target or pickup.
- 6 A problem with the shared reference voltage or ground circuit that affects multiple sensors, though sensor C is the one flagged.



How to diagnose and fix it

- 1 Perform a visual inspection of the position sensor C wiring and connectors for damage, corrosion, or loose pins.
- 2 Use a scan tool to check for related codes and freeze-frame data, and verify the sensor C signal with a graphing multimeter or oscilloscope if accessible.
- 3 Measure resistance and continuity of the sensor C circuit from the sensor to the controller, comparing to manufacturer specifications.
- 4 Check the sensor's reference voltage and ground at the connector to rule out a shared circuit fault.
- 5 If the circuit tests good, swap position sensor C with a known-good sensor of the same type (if accessible) to see if the code follows.
- 6 Repair or replace damaged wiring, connectors, or the sensor as needed, then clear codes and verify the repair with a test drive.
- 7 If the fault persists, follow the manufacturer's diagnostic flow for the controller, which may involve reprogramming or replacement.

What the position sensor code really means

- A P0CDA can be set by a momentary glitch in the sensor signal that does not repeat, so always check for stored freeze-frame data and history codes before replacing parts.
- The position sensor circuit often shares a common ground or reference voltage with other sensors, so a fault in that shared circuit can trigger this code even if sensor C itself is fine.
- On some vehicles, the controller may set this code if the sensor signal is plausible but does not match the other position sensors, indicating a mechanical issue like a slipped target wheel rather than an electrical fault.
- Replacing the sensor without checking the wiring harness for chafing or pin tension is a common misdiagnosis, especially on high-vibration hybrid and electric vehicles.
- This code can be accompanied by other position sensor codes (B or D) if the fault is in a shared circuit, so always address all stored codes together.

Can I keep driving with P0CDA?

If the vehicle drives normally, you can cautiously continue to a repair shop, but avoid heavy acceleration or long trips. If the vehicle enters limp mode or refuses to move, stop driving and have it towed to prevent further damage or safety risk.

Tools that help

- OBD-II scan tool with live data and graphing capabilities
- Digital multimeter
- Oscilloscope (for signal analysis)
- Wiring diagram and service information for the specific vehicle
- Basic hand tools for connector and sensor access



Reading P0CDA

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

Often seen with

P0A3F Drive Motor A Position Sensor Circuit · **P0C00** Drive Motor A Current Low · **P0CD9** Hybrid/EV Battery Pack Coolant Temperature Sensor B Circuit · **P0CDB** Drive Motor A Position Sensor Circuit C Range/Performance · **P0CDC** Drive Motor A Position Sensor Circuit C Circuit Low

See it working

Watch the animated explainer [How Regenerative Braking Works in Electric Cars](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0cda/>

