



P0CDB

Drive Motor A Position Sensor Circuit C Range/Performance

P0CDB indicates that the computer monitoring the position sensor circuit for drive motor A has detected an out-of-range or performance fault specifically on circuit C. The sensor's output voltage or signal pattern does not match what the control module expects for the motor's commanded position, so the module flags the circuit as unreliable.

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 symptoms
- Reduced power or limp-home mode because the motor position is no longer trusted
- Rough or delayed engagement when shifting into drive or reverse
- Intermittent shuddering or hesitation under acceleration
- A stored code that returns immediately after clearing, especially when the motor is warm or moving

Common causes, most likely first

- 1 Damaged or chafed wiring in circuit C between the sensor and the control module
- 2 Corroded, loose, or pushed-back terminals at the sensor or module connector
- 3 Internal failure of the drive motor A position sensor
- 4 Signal interference or a short to voltage or ground on the circuit C path
- 5 Failed or failing control module that cannot correctly interpret the sensor signal
- 6 Mechanical wear in the motor or resolver assembly that distorts the position signal

How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data for P0CDB before clearing anything
- 2 Inspect the sensor connector and circuit C wiring for chafing, corrosion, and loose pins
- 3 Measure resistance and voltage on circuit C and compare with the manufacturer's specification
- 4 Perform a wiggle test on the harness while watching live position sensor data to catch intermittent faults
- 5 Check the sensor's output signal with an oscilloscope for glitches or a distorted waveform
- 6 Replace the drive motor A position sensor if the circuit tests good but the signal is erratic
- 7 Relearn or recalibrate the motor position after repair and verify the code does not return



Circuit C faults that fool good technicians

- A range or performance fault on circuit C often comes from a poor connection rather than a failed sensor, so terminal tension and corrosion deserve a close look before any part is replaced.
- The code can set intermittently from vibration or heat, which means a static resistance check may pass while the fault is still present during a road test.
- A weak or failing 12-volt battery or a poor ground can distort sensor reference voltage and trigger this code without any fault in the sensor itself.
- After replacing the sensor, some vehicles require a position relearn procedure; skipping it can make the new sensor appear faulty and set the code again.
- Related codes for the same motor or other position sensor circuits frequently appear together, so diagnosing only P0CDB can miss a shared power or ground problem.

Can I keep driving with P0CDB?

The vehicle may enter a reduced-power mode, so avoid sustained highway speeds and heavy acceleration until the fault is repaired. If the warning light is accompanied by a sudden loss of power or a no-start condition, stop driving and arrange a tow.

Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter
- Oscilloscope
- Wiring diagram and connector pinout for the specific vehicle
- Terminal pick and contact cleaner

Reading P0CDB

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

Often seen with

P0A3F Drive Motor A Position Sensor Circuit · **P0C00** Drive Motor A Current Low · **P0CDA** Drive Motor A Position Sensor Circuit C Circuit · **P0CDC** Drive Motor A Position Sensor Circuit C Circuit Low · **P0CDD** Drive Motor A Position Sensor Circuit C Circuit High



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/p0cdb/>

