

GENERIC · POWERTRAIN

P0C00

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0C00

Drive Motor A Current Low

P0C00 means the hybrid or electric vehicle control module has detected that the current flowing through the drive motor A circuit is lower than the expected value for the commanded operating condition. The computer compares commanded torque and measured current feedback, and it sets this code when the actual current stays below the calibrated minimum for a set time.

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

Symptoms you may notice

- Illumination of the hybrid system or check engine light, often with no other noticeable symptoms
- Reduced power or a limp-home mode that limits vehicle speed and acceleration
- The vehicle may refuse to start or move in electric drive, especially after a key cycle
- A shudder or hesitation during acceleration if the motor is intermittently losing current
- The dashboard may display a 'hybrid system fault' or 'service vehicle soon' message

Common causes, most likely first

- 1 A loose, corroded, or damaged connector at the drive motor A current sensor or motor harness
- 2 A faulty current sensor on the drive motor A circuit sending a low or erratic signal
- 3 A damaged or chafed motor phase cable causing high resistance or an open circuit under load
- 4 A failing drive motor A inverter or power module that cannot deliver commanded current
- 5 A weak or failing 12-volt auxiliary battery causing low reference voltage to the hybrid control module
- 6 A software calibration issue in the hybrid control module that misinterprets current feedback
- 7 An internal fault in the drive motor A windings or resolver circuit that reduces current output



How to diagnose and fix it

- 1 Connect a scan tool and record all hybrid and motor control module freeze-frame data, then clear the code and test-drive to see if it returns under load
- 2 Visually inspect the drive motor A harness, connectors, and current sensor for corrosion, loose pins, or chafed wiring, and repair as needed
- 3 Measure the 12-volt battery and charging system voltage to confirm stable reference voltage to the hybrid control module
- 4 Back-probe the current sensor signal circuit and compare live current readings with commanded torque to verify sensor accuracy
- 5 Perform a resistance and insulation test on the motor phase cables and windings to rule out high-resistance or open circuits
- 6 Check for technical service bulletins or calibration updates for the hybrid control module that address current-sensor interpretation
- 7 If all external circuits test good, substitute a known-good current sensor or inverter and retest before replacing the drive motor assembly

Current sensor faults mimic motor failures

- A low-current code is frequently set by a failing current sensor or a poor connector pin rather than by the drive motor itself, so always verify sensor signal integrity before condemning the motor.
- Intermittent high-resistance in a motor phase cable can cause low current only under heavy load, so a static resistance test may pass while the fault still occurs during a road test.
- A weak 12-volt battery can pull down the hybrid control module reference voltage and skew current-sensor readings, setting this code with no actual motor fault present.
- Some vehicles set P0C00 after a low-voltage event or jump-start, and the code may be a history code that does not indicate a current failure until the system is re-tested under load.
- The drive motor A current sensor is often integrated into the inverter or motor assembly, so a sensor replacement may require a costly assembly, making circuit verification even more important.

Can I keep driving with P0C00?

Do not continue driving with this code active because the vehicle may enter a reduced-power mode or lose propulsion without warning. Have the vehicle towed to a qualified hybrid technician if it will not move or if the warning light is accompanied by a loss of power.



Tools that help

- Hybrid-capable scan tool with live data and freeze-frame recording
- Digital multimeter with back-probe pins and min/max recording
- Insulation resistance tester for motor cables and windings
- Oscilloscope for current-sensor signal analysis
- Battery load tester and charging system analyzer
- Manufacturer service information for connector pinouts and torque specifications

Reading P0C00

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

Often seen with

P0A0A High Voltage System Interlock Circuit A · **P0A94** DC/DC Converter A Performance · **P0C01** Drive Motor A Current High · **P0C02** Drive Motor B Current

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/p0c00/>

