



P2C6D

Drive Motor "A" Phase Y Current Low

P2C6D indicates that the inverter controller has detected a low current condition on the Y phase of the three-phase drive motor designated 'A'. This typically means the measured current is below the expected value for the commanded torque, often due to a faulty current sensor, damaged wiring, or an internal inverter issue.

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

Symptoms you may notice

- Illumination of the hybrid system warning light or service vehicle soon light
- Reduced power or limp mode, limiting vehicle speed
- The vehicle may refuse to start or move in electric mode
- Intermittent stalling or shuddering during acceleration
- Often no symptoms besides the warning light, especially if the fault is intermittent

Common causes, most likely first

- 1 Faulty phase current sensor on the Y phase circuit
- 2 Damaged or corroded wiring or connector at the motor or inverter
- 3 Internal failure in the inverter controller (e.g., gate driver or current sensing circuit)
- 4 Poor electrical ground connection for the motor or inverter
- 5 Motor stator winding fault causing unbalanced current
- 6 Software glitch in the inverter control module requiring recalibration

How to diagnose and fix it

- 1 Perform a visual inspection of the motor and inverter harnesses for chafing, corrosion, or loose connectors
- 2 Use a scan tool to check for related codes and freeze-frame data to confirm the fault conditions
- 3 Measure resistance and continuity of the Y phase wiring between the motor and inverter, comparing to specifications
- 4 Test the phase current sensor output with an oscilloscope or multimeter if accessible
- 5 Check and clean all ground connections for the motor and inverter
- 6 Reprogram or update the inverter control module software if applicable
- 7 If all external checks pass, replace the inverter controller or motor as diagnosed



Phase Current Sensor Failures Mimic Wiring Faults

- A failing phase current sensor often produces a low current code without any driveability symptoms, leading to misdiagnosis as a wiring issue.
- The code can be set by a momentary glitch during startup or shutdown, so intermittent occurrences may not require immediate repair.
- Always verify the integrity of the motor and inverter grounds before condemning the inverter, as a poor ground can skew current readings.
- On some vehicles, this code may be stored alongside other phase current codes (e.g., P2C6A, P2C6B) indicating a pattern failure in the inverter.
- Replacing the inverter without checking the motor windings can lead to a repeat failure if the motor is drawing excessive current.

Can I keep driving with P2C6D?

If the vehicle enters limp mode or exhibits severe power loss, avoid driving and seek professional diagnosis immediately. If only the warning light is on with no performance change, you may drive cautiously to a repair facility, but avoid heavy acceleration or long trips.

Tools that help

- OBD-II scan tool with hybrid/EV capability
- Digital multimeter
- Oscilloscope
- Insulation tester
- Manufacturer-specific diagnostic software

Reading P2C6D

P	Powertrain: engine, transmission and emissions.
2	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
C	Hybrid propulsion.
6D	The exact fault within that area.

Often seen with

P0A3F Drive Motor A Position Sensor Circuit · **P0A45** Drive Motor B Position Sensor Circuit · **P2C6A** Drive Motor "A" Phase X Current Low · **P2C6B** Drive Motor "A" Phase X Current High · **P2C6C** Drive Motor "A" Phase Y 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/p2c6d/>

