



## P0A6C

### Drive Motor B Phase W Current

P0A6C indicates that the hybrid or electric vehicle's motor control unit has detected an abnormal current condition in phase W of the three-phase drive motor B circuit. The computer compares commanded current with actual feedback and flags this code when the measured current in that phase deviates from the expected value beyond a calibrated threshold.

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

### Symptoms you may notice

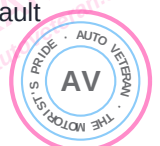
- Illumination of the hybrid system warning light or service vehicle soon message
- Reduced power output or limp-home mode with limited vehicle speed
- The vehicle may refuse to start or shift into drive if the fault is active at key-on
- Possible shuddering or rough operation during acceleration if the motor is still partially functional
- Often no symptoms besides the warning light, especially if the fault is intermittent

### Common causes, most likely first

- 1 Damaged or chafed wiring in the phase W cable between the inverter and motor B
- 2 Loose or corroded terminal at the motor B phase W connector or inverter connector
- 3 Internal short or open circuit in the motor B stator winding for phase W
- 4 Failed current sensor inside the inverter or motor control unit
- 5 Faulty inverter power module affecting phase W current output
- 6 Moisture intrusion into the phase W connector or motor housing causing intermittent current leakage

### How to diagnose and fix it

- 1 Perform a visual inspection of the phase W cable and connectors for chafing, corrosion, or loose pins
- 2 Measure the resistance of the phase W winding and compare it to the other two phases to check for an open or short
- 3 Use a scan tool to monitor live current feedback for phase W while gently wiggling the harness to reveal intermittent faults
- 4 Check for technical service bulletins or software updates for the motor control unit that address current-sensing calibration
- 5 Perform an insulation resistance test on the phase W cable and motor winding to rule out a ground fault
- 6 If wiring and motor check out, substitute a known-good inverter or motor control unit to isolate the fault
- 7 Clear the code and perform a road test to confirm the repair, then verify no pending codes return



## Phase W current faults that fool technicians

- A loose ground connection for the motor or inverter can cause phantom phase current faults because the current sensor reference shifts, so always verify ground integrity before condemning the motor.
- Intermittent P0A6C codes often appear after a car wash or heavy rain when moisture enters the phase W connector, and the code may not reset until the connector is dried and resealed.
- The code can be set by a failing 12-volt auxiliary battery that causes voltage drops during cranking, which corrupts the current sensor readings at key-on.
- Technicians sometimes replace the motor when the real fault is a chafed phase W cable rubbing against a bracket, so a thorough harness inspection with a mirror is essential.
- After any repair involving the phase W circuit, the motor control unit may need a calibration or learn procedure to relearn the current offset, otherwise the code can return immediately.

## Can I keep driving with P0A6C?

Do not continue driving with an active P0A6C code because a phase current fault can lead to sudden loss of motive power or further damage to the inverter and motor. Have the vehicle towed to a qualified hybrid service facility for diagnosis.

## Tools that help

- Hybrid-rated digital multimeter with insulation resistance function
- Oscilloscope with a current clamp for phase current waveform analysis
- Scan tool capable of reading hybrid-specific live data and clearing codes
- Insulation tester (megohmmeter) for high-voltage cable testing
- Terminal pick and connector release tools

## Reading P0A6C

|           |                                                                      |
|-----------|----------------------------------------------------------------------|
| <b>P</b>  | Powertrain: engine, transmission and emissions.                      |
| <b>0</b>  | Generic (SAE) code: it means the same thing on every OBD-II vehicle. |
| <b>A</b>  | Hybrid propulsion.                                                   |
| <b>6C</b> | The exact fault within that area.                                    |

## Often seen with

**P0A6A** Drive Motor B Phase V Current Low · **P0A6B** Drive Motor B Phase V Current High · **P0A6D** Drive Motor B Phase W Current Low · **P0A6E** Drive Motor B Phase W Current High · **P0A78** Drive Motor A Inverter Performance



### 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/p0a6c/>

