

GENERIC · POWERTRAIN

P0A6E

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0A6E

Drive Motor B Phase W Current High

P0A6E indicates that the hybrid or electric vehicle's control module has detected excessive current flowing through the phase W circuit of drive motor B, which is the traction motor responsible for propulsion. The computer compares commanded current to actual current measured by the inverter's current sensors and flags the code when the measured value exceeds the expected threshold for a calibrated time period.

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
- Audible whining or grinding from the motor area during acceleration
- Often no symptoms besides the warning light if the fault is intermittent
- Possible overheating smell or hot components near the inverter

Common causes, most likely first

- Faulty current sensor inside the inverter or motor control module
- Damaged or chafed phase W cable between the inverter and motor
- Loose or corroded high-voltage connector terminals at the motor or inverter
- Internal short or winding fault in drive motor B
- Failed inverter power module or gate driver circuit
- Software calibration error in the motor control unit
- Moisture intrusion into the motor or inverter housing causing leakage current

How to diagnose and fix it

- Perform a visual inspection of the phase W cable and connectors for damage, corrosion, or loose fit
- Use a scan tool to check for related codes and freeze-frame data to confirm the fault conditions
- Measure the resistance of the phase W winding and compare to specifications
- Check the current sensor signal with an oscilloscope or manufacturer-specific diagnostic tool
- Inspect the inverter for signs of overheating, burnt components, or coolant leaks
- Repair or replace the faulty cable, connector, sensor, or motor as needed
- Clear codes and perform a road test to verify the repair



Current sensor faults often mimic motor failure

- A failed current sensor can report high current even when the motor is operating normally, leading to unnecessary motor replacement.
- Intermittent high-current readings often occur under specific load or temperature conditions, so a road test with live data is essential.
- High-voltage cable chafing against a bracket or body panel is a common cause that is easily overlooked during visual inspection.
- The code may set alongside other phase current codes (P0A6A, P0A6C) if the fault is in the inverter rather than the motor.
- Always follow the manufacturer's high-voltage safety procedures; the phase W circuit carries lethal voltage.

Can I keep driving with P0A6E?

Do not continue driving with this code active, as the high-voltage system may be compromised and could cause a sudden loss of power or safety hazard. Have the vehicle towed to a qualified hybrid technician for diagnosis.

Tools that help

- Hybrid/EV capable scan tool with live data
- Digital multimeter with high-voltage rated probes
- Oscilloscope for current sensor signal analysis
- Insulation tester (megohmmeter)
- Manufacturer-specific diagnostic software

Reading P0A6E

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

Often seen with

P0A6A Drive Motor B Phase V Current Low · **P0A6C** Drive Motor B Phase W Current · **P0A6F** Generator Phase U Current · **P0A7A** Generator Inverter Performance · **P0A94** DC/DC Converter A 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/p0a6e/>

