

GENERIC · POWERTRAIN

P0A60

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0A60

Drive Motor A Phase V Current

P0A60 indicates that the hybrid or electric vehicle controller has detected an abnormal current reading in phase V of drive motor A, which is one of the three electrical phases that power the traction motor. The computer compares commanded current against measured feedback and sets this code when the phase V current deviates beyond calibrated limits, pointing to a problem in the motor winding, its cabling, or the current sensing circuit.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

High

FIX DIFFICULTY

Professional

AREA

Hybrid propulsion

Symptoms you may notice

- Illumination of the hybrid system warning light or service vehicle soon message
- Often no symptoms besides the warning light, especially if the fault is intermittent
- Reduced power or limp-home mode with limited acceleration
- Rough running or shuddering during acceleration or regenerative braking
- Possible refusal to start or shift into drive if the fault is severe
- In rare cases, a burning smell or audible electrical arcing from the motor area

Common causes, most likely first

- 1 Damaged or chafed phase V cable between the inverter and the motor
- 2 Faulty current sensor or sensing circuit inside the inverter or motor control unit
- 3 Internal motor winding fault, such as a short or open in the phase V coil
- 4 Corroded or loose high-voltage connector pins at the motor or inverter
- 5 Failed inverter power module affecting current delivery to phase V
- 6 Moisture intrusion into the motor housing or connector causing leakage current
- 7 Software calibration issue in the motor control unit misreading phase current



How to diagnose and fix it

- 1 Scan all hybrid and motor control modules for stored and pending codes, and record freeze-frame data for P0A60
- 2 Visually inspect the phase V cable and connectors for chafing, corrosion, or loose pins, and check for signs of overheating
- 3 Measure the phase V cable resistance and compare it with the other two phases to detect an open or high-resistance conductor
- 4 Perform an insulation resistance test on the phase V winding and cable to rule out a short to ground or to another phase
- 5 Check the current sensor signal and its wiring at the motor control unit, looking for an open circuit or skewed reading
- 6 If the sensor and cabling test good, swap or test the inverter or motor control unit with a known-good unit to isolate the fault
- 7 After repair, clear codes and run a road test with live data to confirm phase V current tracks the commanded value within specification

Phase V current faults that fool technicians

- A loose or corroded high-voltage connector pin often causes an intermittent P0A60 that only appears under heavy load or vibration, so a static inspection can miss it entirely.
- The current sensor inside the inverter can drift without setting a sensor-specific code, making P0A60 the only clue that the feedback circuit is lying about phase V current.
- Technicians sometimes replace the motor when the real fault is a chafed cable harness rubbing against a bracket, so always trace the full cable route before condemning the motor.
- Moisture inside the motor housing can create a leakage path that skews phase current readings, and this often shows up after a car wash or heavy rain rather than on a dry test drive.
- A weak 12-volt auxiliary battery can cause erratic hybrid control module behavior that mimics a phase current fault, so verify system voltage before deep high-voltage diagnosis.

Can I keep driving with P0A60?

Do not continue driving with P0A60 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 technician and avoid any attempt to clear the code and keep driving.



Tools that help

- Hybrid-capable OBD-II scan tool with live data and freeze-frame recording
- Digital multimeter with high-voltage rated probes
- Insulation resistance tester (megohmmeter)
- Oscilloscope for current sensor signal analysis
- Manufacturer service information for phase resistance specifications
- High-voltage safety gloves and insulated tools

Reading P0A60

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

Often seen with

P0A3F Drive Motor A Position Sensor Circuit · **P0A5F** Drive Motor A Phase U Current High · **P0A61** Drive Motor A Phase V Current Low · **P0A62** Drive Motor A Phase V Current High · **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/p0a60/>

