

GENERIC · POWERTRAIN

P0A71

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0A71

Generator Phase U Current High

P0A71 indicates that the generator's phase U current is higher than the expected value, as detected by the hybrid or electric vehicle control module monitoring the inverter's current sensors. The computer sets this code when the measured current in phase U exceeds a calibrated threshold, often due to a short circuit, excessive load, or a faulty current sensor.

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

Symptoms you may notice

- Illumination of the check engine light or hybrid system warning light
- Reduced power or limp mode, limiting vehicle speed
- The hybrid system may shut down completely, preventing the engine from starting
- A noticeable decrease in fuel economy or electric-only range
- Audible whining or grinding noises from the generator area
- Often no symptoms besides the warning light

Common causes, most likely first

- 1 Short circuit or damaged insulation in the generator phase U winding or wiring
- 2 Faulty current sensor in the inverter or generator control module
- 3 Corroded or loose electrical connections at the generator or inverter
- 4 Internal failure of the generator, such as a shorted diode or stator fault
- 5 Inverter malfunction causing incorrect current regulation
- 6 Overheating of the generator or inverter due to cooling system issues
- 7 Software glitch in the hybrid control module requiring reprogramming



How to diagnose and fix it

- 1 Perform a visual inspection of the generator, inverter, and wiring for obvious damage or corrosion
- 2 Use a scan tool to check for related codes and freeze-frame data to understand the conditions when the code set
- 3 Measure the resistance of the generator phase U winding and compare to specifications
- 4 Check the current sensor signal with an oscilloscope or multimeter to verify accuracy
- 5 Inspect and clean all electrical connections between the generator and inverter
- 6 Test the inverter for proper operation and replace if faulty
- 7 Reprogram or replace the hybrid control module if software issues are suspected

Before you replace the generator

- A loose or corroded ground connection can cause false high-current readings, so always check grounds before condemning the generator.
- The current sensor is often integrated into the inverter assembly and may not be serviceable separately, leading to unnecessary inverter replacement.
- High current in phase U can be a symptom of a failing bearing causing rotor drag, which increases current draw without any electrical fault.
- This code can be set by a simple low 12-volt battery or weak hybrid battery, as low voltage can disrupt current sensor calibration.
- Always verify the hybrid system's cooling system is functioning properly, as overheating can cause temporary current spikes.

Can I keep driving with P0A71?

Do not continue driving with this code set, as the hybrid system may shut down unexpectedly, leading to loss of power and potential safety risk. Have the vehicle towed to a qualified technician for diagnosis.

Tools that help

- OBD-II scan tool with hybrid system capability
- Digital multimeter
- Oscilloscope
- Insulation resistance tester
- Service information for the specific vehicle



Reading P0A71

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

Often seen with

P0A72 Generator Phase V Current · **P0A73** Generator Phase V Current Low · **P0A74** Generator Phase V Current High · **P0A75** Generator Phase W Current · **P0A76** Generator Phase W Current Low

See it working

Watch the animated explainer [How Push-Button Start Works: Keyless Ignition](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0a71/>

