

GENERIC · POWERTRAIN

P0A73

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0A73

Generator Phase V Current Low

P0A73 indicates that the hybrid or electric vehicle's generator control system has detected a low current condition on phase V of the generator's three-phase output. The computer compares expected current to actual measured current and sets this code when the phase V current falls below the calibrated threshold for a set time, pointing to a problem in that phase's circuit, the generator windings, or the inverter's current sensing.

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 check engine light, often with no other noticeable symptoms
- Reduced electric assist or regeneration, leading to lower fuel economy and sluggish acceleration
- The vehicle may enter a fail-safe mode that limits engine power or disables the hybrid system entirely
- Intermittent stalling or rough running when the generator is under load
- A noticeable whine or growl from the generator area during charging, in cases of mechanical damage
- Battery warning light may accompany the code if the 12-volt system is not being charged properly

Common causes, most likely first

- 1 Damaged or corroded wiring and connectors in the phase V circuit between the generator and the inverter
- 2 Failed current sensor inside the inverter that incorrectly reports low current on phase V
- 3 Open or shorted stator winding in the generator for phase V
- 4 Faulty generator control module or inverter assembly internal fault
- 5 Loose or degraded ground connection for the generator or inverter
- 6 Mechanical damage to the generator rotor or bearings causing irregular phase output
- 7 Software calibration issue in the hybrid control module (rare, often requires reprogramming)



How to diagnose and fix it

- 1 Perform a thorough visual inspection of the generator, inverter, and all related wiring for chafing, corrosion, or loose connectors
- 2 Use a scan tool to check for other hybrid system codes and freeze-frame data to confirm the condition and operating parameters
- 3 Measure resistance and continuity of the phase V circuit from the generator to the inverter, comparing to factory specifications
- 4 Check the generator stator windings for opens or shorts using a multimeter and, if possible, an oscilloscope to view the phase current waveform
- 5 Test the current sensor output at the inverter with a scope or manufacturer-specific diagnostic tool to verify it responds correctly
- 6 If wiring and sensors are good, perform a generator load test and inspect for mechanical faults such as bearing noise or rotor damage
- 7 Repair or replace the faulty component (wiring, sensor, generator, or inverter) and clear the code, then verify the repair with a test drive

Phase V current faults often misdiagnosed

- A low current reading on one phase is frequently caused by a poor connection at the generator's high-voltage connector rather than a failed generator, so inspect terminals before condemning parts.
- The current sensor inside the inverter can drift and report low current even when the generator is functioning correctly, leading to unnecessary generator replacement.
- This code can be set by a weak 12-volt battery or charging system issue that affects the hybrid control module's reference voltage, so always check the 12-volt system first.
- On some vehicles, a software update for the hybrid control module addresses false phase current detection, so check for technical service bulletins before replacing hardware.
- Phase V current low does not always mean the generator is failing; it can also be triggered by a shorted diode in the inverter's rectifier bridge, which affects current flow on that phase.

Can I keep driving with P0A73?

Driving with P0A73 is not recommended because the hybrid system may be disabled or enter a fail-safe mode, reducing power and potentially leaving you stranded. If you must drive to a repair shop, avoid heavy acceleration and long distances, and do not tow heavy loads.



Tools that help

- Hybrid system safe disconnect tools and personal protective equipment (insulated gloves, safety glasses)
- Digital multimeter with high-voltage rating and CAT III safety rating
- Oscilloscope with current probe for waveform analysis
- Manufacturer-specific scan tool with hybrid system capabilities
- Breakout box and wiring diagrams for circuit testing
- Insulation tester (megohmmeter) for checking high-voltage cable integrity

Reading P0A73

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

Often seen with

P0A72 Generator Phase V Current · **P0A74** Generator Phase V Current High · **P0A75** Generator Phase W Current · **P0A76** Generator Phase W Current Low · **P0A77** Generator Phase W Current High

See it working

Watch the animated explainer [How a Turbocharger Works, Step by Step](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0a73/>

