

GENERIC · POWERTRAIN

P0A1A

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0A1A

Generator Control Module

P0A1A indicates that the generator control module has reported an internal fault or a communication failure to the powertrain control module (PCM). The PCM sets this code when it detects that the generator control module is not functioning within its expected operating parameters, which can prevent proper charging of the high-voltage battery or 12-volt system.

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

Symptoms you may notice

- Illumination of the battery/charging system warning light on the dashboard
- The vehicle may enter a reduced power or limp mode to protect the electrical system
- Dimming or flickering of interior and exterior lights
- A dead 12-volt battery or difficulty starting the engine if the generator is not charging
- Often no symptoms besides the warning light, especially if the fault is intermittent

Common causes, most likely first

- 1 Faulty generator control module itself, due to internal electronic failure
- 2 Corroded, loose, or damaged wiring or connectors in the generator control circuit
- 3 Failed generator assembly, such as a worn brush or faulty voltage regulator
- 4 Software glitch or outdated calibration in the generator control module or PCM
- 5 Poor ground connection for the generator or control module
- 6 Auxiliary battery or high-voltage battery degradation affecting generator operation

How to diagnose and fix it

- 1 Perform a thorough visual inspection of the generator, its connectors, and wiring for damage or corrosion
- 2 Check and clean all ground connections related to the generator and control module
- 3 Use a scan tool to retrieve all stored codes and freeze-frame data, and check for any applicable technical service bulletins (TSBs)
- 4 Test the generator output and control signals with a multimeter or oscilloscope according to the manufacturer's procedure
- 5 Verify the integrity of the communication bus (e.g., CAN) between the generator control module and PCM
- 6 If wiring and connections are good, reprogram or update the generator control module software if applicable
- 7 Replace the generator control module or generator assembly only after confirming a confirmed internal fault

What most technicians overlook with P0A1A

- A weak or failing 12-volt battery can cause voltage fluctuations that mimic a generator control module fault, so always load-test the battery first.
- Corrosion inside a connector that looks fine from the outside is a common culprit; disconnecting and inspecting terminals is essential.
- The code can be set by a communication error on the bus rather than a hard failure of the module, so check for other communication codes (U-codes) that may point to a network issue.
- On some vehicles, the generator control module is integrated into the generator itself, making replacement of the entire unit necessary if internal faults are confirmed.
- A loose or worn serpentine belt can cause intermittent charging issues that trigger this code without any electronic fault.

Can I keep driving with P0A1A?

If the battery/charging warning light is on, avoid driving long distances and turn off unnecessary electrical accessories to conserve power. Continuing to drive with a faulty charging system can leave you stranded with a dead battery, so have the vehicle inspected promptly.

Tools that help

- OBD-II scan tool with manufacturer-specific capabilities
- Digital multimeter
- Oscilloscope for waveform analysis
- Battery load tester
- Wiring diagram and service information

Reading P0A1A

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
A	Hybrid propulsion.
1A	The exact fault within that area.

Often seen with

P0562 System Voltage Low · **P0563** System Voltage High · **P0A1B** Drive Motor A Control Module Performance · **P0A1C** Drive Motor B Control Module Performance · **U0111** Lost Communication With Battery Energy Control Module 'A'



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/p0a1a/>

