

GENERIC · POWERTRAIN

P0C66

OBD-II TROUBLE CODE

P0C66

Generator Position Sensor Circuit A Circuit Low

P0C66 indicates that the generator position sensor circuit A is reporting a voltage below the expected range, so the engine control module cannot reliably determine the rotor position of the generator. The computer sets this code when the signal wire voltage stays lower than the calibrated threshold for a set period, which can affect charging system control and hybrid power management.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Hybrid propulsion

Symptoms you may notice

- Illumination of the battery/charging system warning light or service vehicle soon message
- Intermittent or complete loss of charging, leading to a discharged 12-volt battery
- Reduced engine performance or forced limp-home mode on hybrid vehicles
- Auxiliary electrical accessories dimming or operating erratically
- Often no symptoms besides the warning light, especially if the fault is intermittent

Common causes, most likely first

- 1 Damaged, chafed, or disconnected signal wire between the generator position sensor and the control module
- 2 Failed generator position sensor or contaminated sensor pickup
- 3 Corroded or loose electrical connector at the generator or sensor
- 4 Internal generator fault such as a shorted stator or rotor winding affecting sensor signal
- 5 Faulty engine control module or generator control module not supplying reference voltage
- 6 Poor ground connection at the generator housing or chassis



How to diagnose and fix it

- 1 Perform a visual inspection of the generator position sensor wiring and connector for damage, corrosion, or looseness
- 2 Use a digital multimeter to check for reference voltage at the sensor connector with the key on and engine off
- 3 Back-probe the signal wire and compare voltage with the manufacturer's specification while cranking or running
- 4 Check resistance of the sensor winding and compare to the service information, replacing the sensor if out of range
- 5 Inspect and clean all ground connections between the generator, engine block, and chassis
- 6 If wiring and sensor test good, test the generator output and internal components before condemning the control module
- 7 Clear the code and verify repair by performing a charging system test and test drive with live data monitoring

When the sensor isn't the real culprit

- A loose or corroded ground strap at the generator can cause a low signal voltage that mimics a failed position sensor, so always load-test grounds before replacing parts.
- On hybrid vehicles, this code may be set by the hybrid control module rather than the engine control module, and the generator position sensor is often integrated into the motor-generator unit.
- Aftermarket accessories or improper jump-starting can spike the reference voltage circuit and set a false low-voltage code, so check for recent electrical work.
- The code can be stored intermittently due to vibration or heat, and a wiggle test of the harness while monitoring live data often reveals the fault without any parts replacement.
- A failing 12-volt battery with low resting voltage can cause the control module to misread sensor signals, so always verify battery condition and charging output first.

Can I keep driving with P0C66?

You can usually drive a short distance to a repair shop if the charging system warning light is the only symptom, but avoid long trips or heavy electrical loads because the battery may discharge and leave you stranded. If the vehicle enters limp mode or the battery light flashes, stop safely and arrange a tow.

Tools that help

- Digital multimeter with back-probe pins
- OBD-II scan tool with live data capability
- Wiring diagram and service information for the specific vehicle
- Battery load tester or charging system analyzer
- Basic hand tools and terminal pick set



Reading P0C66

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

Often seen with

P0562 System Voltage Low · **P0620** Generator Control Circuit Malfunction · **P0C67** Generator Position Sensor Circuit A Circuit High · **P0C68** Generator Position Sensor Circuit A Circuit Intermittent/Err

See it working

Watch the animated explainer [Readiness Monitors and the OBD-II Drive Cycle](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0c66/>

