



P063C

Generator Voltage Sense Circuit A Low

P063C indicates that the engine control module (ECM) has detected an abnormally low voltage on the generator voltage sense circuit, which is the feedback line the ECM uses to monitor the charging system's output. The ECM compares this signal against expected values and sets the code when the voltage falls below the calibrated threshold for a set time, often indicating a wiring fault, poor connection, or a failing generator.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Computer and output circuits

Symptoms you may notice

- Illumination of the battery/charging system warning light on the dashboard
- Dimming or flickering of interior and exterior lights, especially at idle
- Electrical accessories such as radio, power windows, or climate control operating sluggishly or intermittently
- Battery repeatedly going dead or requiring frequent jump starts
- Gauges or instrument cluster behaving erratically due to low system voltage
- Often no symptoms besides the warning light, especially if the fault is intermittent

Common causes, most likely first

- 1 Corroded, loose, or damaged wiring or connector at the generator voltage sense circuit
- 2 Failed generator voltage regulator causing incorrect sense voltage output
- 3 Open or shorted voltage sense wire between the generator and the ECM
- 4 Poor ground connection for the generator or ECM, leading to voltage drop
- 5 Faulty ECM, though rare, misinterpreting a valid sense signal
- 6 Blown fuse or fusible link protecting the voltage sense circuit
- 7 Aftermarket accessories improperly wired into the charging system, causing interference



How to diagnose and fix it

- 1 Perform a visual inspection of the generator, battery, and all related wiring for obvious damage, corrosion, or loose connections
- 2 Use a digital multimeter to measure battery voltage at rest and with the engine running; expect about 12.6 V off and 13.5–14.5 V running
- 3 Check the voltage sense circuit wiring for continuity and resistance between the generator and ECM, repairing any opens or shorts
- 4 Clean and tighten all ground connections, including the engine block, chassis, and ECM grounds
- 5 Test the generator's voltage regulator output and compare it with the ECM's commanded voltage; replace the generator or regulator if faulty
- 6 Inspect and replace any blown fuses or fusible links in the voltage sense circuit
- 7 Clear the code and perform a charging system test to verify the repair, monitoring live data for the voltage sense signal

Voltage Sense Circuit Diagnostic Traps

- A common oversight is replacing the generator without first checking the voltage sense wire for high resistance, which can mimic a failed regulator and set P063C even when the generator is healthy.
- The code does not always mean the generator is failing; a poor ground connection at the engine block or chassis can cause a low voltage sense reading and trigger the code without any generator fault.
- Intermittent P063C codes often result from a loose or corroded connector that only acts up under vibration or temperature changes, so wiggle-testing the harness while monitoring live data is essential.
- Aftermarket electrical accessories, such as high-power audio systems or auxiliary lighting, improperly tapped into the charging circuit can introduce voltage drops that the ECM interprets as a low sense signal.
- Some vehicles use a dedicated voltage sense wire that is separate from the main charging output cable; technicians who only check the output cable may miss a fault in the sense circuit entirely.

Can I keep driving with P063C?

You can usually drive the vehicle short distances to a repair shop, but avoid long trips or heavy electrical loads because a low charging voltage can leave you stranded with a dead battery. If the battery warning light is on and the voltage gauge is dropping, pull over safely and arrange a tow to prevent a no-start condition.

Tools that help

- Digital multimeter (DMM)
- OBD-II scan tool with live data capability
- Wiring diagram for the charging system
- Basic hand tools (wrenches, screwdrivers, wire crimpers)
- Test light or power probe
- Battery load tester



Reading P063C

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 6** Computer and output circuits.
- 3C** The exact fault within that area.

Often seen with

P0562 System Voltage Low · **P0563** System Voltage High · **P0620** Generator Control Circuit Malfunction · **P0621** Generator Lamp/L Terminal Circuit · **P0622** Generator Field F Terminal Circuit

See it working

Watch the animated explainer [How a Jet Engine Works: Two-Spool Turbofan](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p063c/>

