



P063D

Generator Voltage Sense Circuit A High

P063D means the engine control module has detected an abnormally high voltage on the generator voltage sense circuit, which is the feedback line the module uses to monitor charging system output. The circuit is reporting a voltage above the expected range, so the module cannot trust the charging system data and sets this code.

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

Symptoms you may notice

- Battery warning light or charging system warning light illuminated on the dashboard
- Battery repeatedly going flat or needing jump starts, especially after short trips
- Dimming headlights or interior lights that brighten with engine speed
- Electrical accessories such as radio or climate control behaving erratically
- Often no symptoms besides the warning light, with the vehicle charging normally

Common causes, most likely first

- 1 Damaged, chafed, or shorted voltage sense wire touching a higher-voltage source
- 2 Corroded or loose connection at the generator, battery, or engine control module harness
- 3 Failed generator voltage regulator causing an overvoltage condition on the sense line
- 4 Faulty engine control module internal voltage reference or sense circuit
- 5 Poor ground connection between the engine, chassis, and battery negative terminal
- 6 Aftermarket electrical accessories improperly spliced into the charging circuit

How to diagnose and fix it

- 1 Perform a visual inspection of the generator harness and sense wire for chafing, corrosion, or loose connectors
- 2 Measure battery voltage at rest and with the engine running to confirm actual charging system output
- 3 Back-probe the voltage sense circuit at the generator and at the engine control module to compare readings
- 4 Check voltage drop across grounds and the battery positive cable under load
- 5 Test the generator voltage regulator output with a charging system analyzer or oscilloscope
- 6 Repair or replace damaged wiring and connectors, then clear the code and verify the sense voltage returns to normal
- 7 If the circuit and generator test good, diagnose the engine control module sense input before replacing the module



Why the sense wire lies about voltage

- A voltage sense wire that shorts to a higher-voltage source will report high voltage even when the generator is charging correctly, so the code can set with a perfectly healthy alternator.
- Corrosion inside a connector can add resistance that skews the sense voltage reading without any visible damage to the wire itself, making a simple wiggle test misleading.
- Technicians sometimes replace the generator only to find the code returns because the real fault is a chafed sense wire routed near the exhaust or accessory belt.
- A weak or failing battery can cause the module to see unstable sense voltage during cranking, setting this code intermittently without a charging system fault.
- Aftermarket accessories tapped into the charging circuit can backfeed voltage onto the sense line, so always ask about recent electrical work before condemning the generator.

Can I keep driving with P063D?

You can usually drive short distances to a repair shop, but avoid long trips and heavy electrical loads because an overvoltage condition can damage the battery and electronic modules. If the battery warning light is on and the battery is not charging, limit driving to avoid a no-start situation.

Tools that help

- Digital multimeter
- Charging system analyzer
- Oscilloscope
- Wire piercing probes
- Scan tool with live data capability

Reading P063D

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.
3D	The exact fault within that area.

Often seen with

P0562 System Voltage Low · **P0563** System Voltage High · **P0620** Generator Control Circuit Malfunction · **P0625** Generator Field/F Terminal Circuit Low · **P063C** Generator Voltage Sense Circuit A Low



See it working

Watch the animated explainer [How Crank and Cam Position Sensors Work](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p063d/>

