

GENERIC · POWERTRAIN

P0563

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0563

System Voltage High

P0563 means the powertrain control module (PCM) has detected that the vehicle's main electrical system voltage is higher than the normal operating range, typically above 15.5 to 16 volts. The computer is seeing an overcharging condition rather than a low-voltage problem, which points to a fault in the charging system or voltage regulation.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Vehicle speed, idle control and auxiliary inputs

Symptoms you may notice

- Battery warning light or charging system light illuminated on the dashboard
- Headlights and interior lights that appear unusually bright or flicker
- Battery acid smell or visible swelling of the battery case
- Electrical accessories such as the radio or climate control behaving erratically
- Often no symptoms besides the warning light, especially if the overvoltage is mild
- In severe cases, a dead battery or stalled engine after the battery is cooked dry

Common causes, most likely first

- 1 Failed voltage regulator inside the alternator, causing uncontrolled charging
- 2 Corroded, loose, or damaged battery cables and terminals creating resistance that confuses regulation
- 3 Faulty battery that will not accept a charge properly and skews the voltage reading
- 4 Damaged or chafed wiring between the alternator and the PCM, including the voltage sense circuit
- 5 Failed PCM or body control module (BCM) that is not commanding the alternator correctly
- 6 Wrong alternator installed or a replacement with an incompatible regulator
- 7 Poor engine ground strap or chassis ground connection raising reference voltage



How to diagnose and fix it

- 1 Measure battery voltage at rest and with the engine running using a digital multimeter; look for over 15.5 volts at idle
- 2 Inspect and clean battery terminals, cable ends, and engine ground straps for corrosion or looseness
- 3 Load-test the battery and replace it if it fails or shows signs of overheating or swelling
- 4 Check the voltage sense wire and alternator control circuit for continuity, shorts, and correct reference voltage
- 5 Test the alternator output and voltage regulator operation according to the manufacturer's procedure
- 6 Replace the alternator or voltage regulator if it is confirmed to be overcharging
- 7 Clear the code and verify the charging voltage stays within the normal range under load before returning the vehicle

Overvoltage is not always the alternator

- A weak or aged battery can cause the voltage regulator to command a higher charge rate, so always test the battery before condemning the alternator.
Corroded ground straps and battery cable ends add resistance that the regulator reads as low voltage, leading to an overcharge command and a P0563.
- Some vehicles use a smart charging system controlled by the BCM, and a software glitch or failed module can set this code even when the alternator is healthy.
- P0563 can be stored intermittently by a loose alternator belt or a failing tensioner that causes brief voltage spikes under acceleration.
Do not assume the PCM is faulty until all wiring, grounds, and the battery have been ruled out, because PCM replacement rarely fixes this code.

Can I keep driving with P0563?

You can drive a short distance to a repair shop, but avoid long trips and heavy electrical loads because overcharging can boil the battery, damage bulbs, and stress electronic modules. If the battery smells like sulfur or the lights are very bright, stop driving and have the charging system checked immediately.

Tools that help

- Digital multimeter
- Battery load tester
- Basic hand tools for cable and terminal cleaning
- Alternator testing equipment or scan tool with charging system data
- Wiring diagram for the charging circuit



Reading P0563

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 5** Vehicle speed, idle control and auxiliary inputs.
- 63** The exact fault within that area.

Often seen with

P0560 System Voltage Malfunction · **P0562** System Voltage Low · **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 Airbags Work: A 50 km/h Crash in Slow Motion](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0563/>

