

GENERIC · POWERTRAIN

P0E06

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0E06

Generator Phase V Current Sensor Circuit Low

P0E06 indicates that the generator's phase V current sensor circuit is reporting a voltage or signal below the expected range, so the powertrain control module cannot accurately measure current on that phase. The computer sets this code when the sensor signal stays lower than the calibrated minimum for a set time, which may prevent proper control of the generator's output.

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 check engine light
- Often no symptoms besides the warning light, especially if the generator still charges normally
- Intermittent or complete loss of charging, leading to a discharged battery and eventual stalling
- Electrical accessories such as lights or infotainment dimming or behaving erratically
- A message on the dashboard indicating a charging system fault or reduced power
- In some vehicles, the engine may enter a reduced-power limp mode to protect the electrical system

Common causes, most likely first

- 1 Faulty generator phase V current sensor or its internal circuitry
- 2 Damaged, corroded, or disconnected wiring or connector at the sensor or generator
- 3 Open or short to ground in the sensor signal circuit
- 4 Poor ground connection for the sensor or generator housing
- 5 Failed generator component (e.g., rectifier or stator) affecting sensor readings
- 6 Water or oil intrusion into the sensor connector causing signal degradation
- 7 Rarely, a software fault in the powertrain control module requiring reprogramming



How to diagnose and fix it

- 1 Perform a visual inspection of the generator, sensor, and all related wiring for damage, corrosion, or loose connections
- 2 Use a scan tool to check for other stored codes and freeze-frame data related to the charging system
- 3 Measure the sensor signal voltage at the sensor connector with a digital multimeter and compare to manufacturer specifications
- 4 Check the sensor's ground circuit for excessive resistance using a voltage drop test
- 5 Inspect the generator's output and phase currents with an oscilloscope or advanced scan tool to verify sensor accuracy
- 6 If the sensor signal is out of range and wiring is intact, replace the generator phase V current sensor or the generator assembly as required
- 7 After repairs, clear codes and verify the charging system operates correctly under load, ensuring the code does not return

Sensor signal checks before parts replacement

- A low signal code often results from a poor ground or corroded connector rather than a failed sensor, so always perform voltage drop tests before condemning parts.
- The generator may continue to charge normally despite this code, leading some drivers to ignore it until the battery fails prematurely.
- On vehicles with smart charging systems, a phase current sensor fault can cause the PCM to default to a fixed charging voltage, reducing fuel efficiency and battery life.
- Replacing the generator without diagnosing the sensor circuit can be an expensive misstep if the real issue is a chafed wire or loose pin.
- This code can be set by a low battery or charging system voltage during engine cranking, so check for related codes like P0562 before extensive diagnostics.

Can I keep driving with P0E06?

You can usually drive the vehicle short distances to a repair shop, but avoid long trips or heavy electrical loads because the charging system may not be properly controlled. If the battery warning light is on and the battery is not charging, stop driving and seek immediate service to prevent a breakdown.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Oscilloscope (optional for advanced signal analysis)
- Wire repair kit with crimpers and heat shrink
- Electrical contact cleaner
- Manufacturer service information for wiring diagrams and specifications



Reading P0E06

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

Often seen with

P0562 System Voltage Low · **P0563** System Voltage High · **P0E05** Generator Phase V Current Sensor Circuit Range/Performance · **P0E07** Generator Phase V Current Sensor Circuit High

See it working

Watch the animated explainer [How a Radiator Fan Relay Circuit Works](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0e06/>

