

GENERIC · POWERTRAIN

P0E6E

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0E6E

Generator Torque Delivered Performance

P0E6E indicates that the powertrain control module commanded a specific torque output from the generator, but the actual torque delivered did not match the command within an acceptable margin. The computer monitors generator operation through the hybrid or belt-alternator-starter control system and sets this code when the delivered torque performance falls outside the expected range.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Professional	Hybrid propulsion

Symptoms you may notice

- Illumination of the check engine light or service vehicle soon message, often with no other symptoms
- Reduced or inconsistent electrical charging, leading to dim lights or slow accessory operation
- A noticeable hesitation or stumble during engine start-stop events or when the generator is loaded
- Battery warning light or charging system message displayed on the dashboard
- Slight vibration or noise from the generator or belt system under heavy electrical load
- Entry into a reduced-power or limp-home mode in some vehicles

Common causes, most likely first

- 1 Faulty generator or belt-alternator-starter unit with worn brushes, bearings, or internal windings
- 2 Degraded or damaged generator drive belt, tensioner, or pulley causing slip under load
- 3 Corroded, loose, or damaged wiring and connectors in the generator control circuit
- 4 Failed generator control module or voltage regulator internal to the generator
- 5 Software calibration issue in the powertrain control module affecting torque commands
- 6 Low or weak 12-volt battery causing unstable voltage supply to the control system
- 7 Mechanical binding or misalignment of the generator mounting or accessory drive



How to diagnose and fix it

- 1 Perform a thorough visual inspection of the generator, belt, tensioner, and all related wiring for damage or looseness
- 2 Check battery state of charge and perform a load test to rule out a weak battery affecting system voltage
- 3 Use a scan tool to monitor generator commanded versus actual torque or current data while loading the electrical system
- 4 Test the generator control circuit for continuity, voltage drops, and proper signals between the control module and generator
- 5 Inspect and test the generator drive belt and tensioner for proper tension and alignment, replacing if worn
- 6 If electrical and mechanical checks pass, follow the manufacturer's diagnostic flow for generator replacement or control module reprogramming
- 7 After repair, clear codes and verify the generator delivers commanded torque under various electrical loads

Generator torque codes often misdiagnosed

- A slipping or glazed accessory drive belt can cause this code without any generator fault, so always inspect belt condition and tension before condemning the generator.
- Corroded ground straps between the engine and chassis are a frequent hidden cause of generator performance codes because they create voltage drops that confuse torque calculations.
- Some vehicles set P0E6E after a battery replacement if the battery monitoring system is not reset, leading to incorrect torque commands until relearned.
- This code does not always mean the generator is failing; a software calibration or communication glitch in the control module can trigger it intermittently.
- Technicians sometimes replace the generator only to find the real issue is a failing voltage regulator or a shorted control wire, so circuit testing must precede parts swapping.

Can I keep driving with P0E6E?

You can usually continue driving to a repair shop, but avoid long trips or heavy electrical loads because the generator may not deliver enough torque to keep the battery charged. If the battery warning light is on or you notice dimming lights, limit driving to short distances and charge the battery as needed.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter for voltage and continuity testing
- Battery load tester
- Belt tension gauge
- Wiring diagram and manufacturer diagnostic procedures



Reading P0E6E

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
E	Hybrid propulsion.
6E	The exact fault within that area.

Often seen with

P0562 System Voltage Low · **P0563** System Voltage High · **P0E6D** Hybrid/EV Battery Precharge Contactor Performance · **P0E6F** Control Pilot Signal Frequency Range/Performance

See it working

Watch the animated explainer [Manual Car Driving Simulator: Learn Clutch Control](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0e6e/>

