

GENERIC · POWERTRAIN

P037E

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P037E

Glow Plug Sense Circuit Low

P037E indicates that the powertrain control module (PCM) has detected a low-voltage condition on the glow plug sense circuit, which is the feedback line used to monitor glow plug operation. The PCM expects a specific voltage range on this circuit when the glow plugs are commanded on or off, and a reading below the threshold triggers this code.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Ignition system and misfire

Symptoms you may notice

- Illumination of the check engine light or glow plug warning lamp
- Hard cold starting or extended cranking before the engine fires
- Rough idle and white smoke immediately after a cold start
- Reduced engine performance and poor fuel economy during warm-up
- Often no symptoms besides the warning light, especially in mild weather

Common causes, most likely first

- 1 Damaged or corroded glow plug sense circuit wiring, including chafed insulation or broken strands
- 2 Failed glow plug with an open or shorted sensing element
- 3 Poor electrical connection at the glow plug, harness connector, or ground point
- 4 Faulty glow plug control module (GPCM) or relay not providing correct feedback voltage
- 5 Corrosion or water intrusion in the sense circuit connector causing high resistance
- 6 PCM internal fault on the sense circuit input, though this is less common

How to diagnose and fix it

- 1 Inspect the glow plug sense circuit wiring and connectors for damage, corrosion, or loose pins, and repair as needed
- 2 Measure resistance of each glow plug and compare to the manufacturer's specification to identify a failed plug
- 3 Check the glow plug control module or relay for proper operation and replace if faulty
- 4 Perform a voltage drop test on the sense circuit to locate excessive resistance under load
- 5 Verify the sense circuit voltage at the PCM connector matches expected values during glow plug activation
- 6 Repair or replace any damaged sections of the sense circuit harness
- 7 Clear the code and perform a cold-start drive cycle to confirm the repair



Sense Circuit Faults Often Misdiagnosed

- A low sense circuit voltage does not always mean the glow plug itself has failed; the sense line is a separate feedback wire that can corrode or break independently of the power circuit.
- Technicians often replace glow plugs unnecessarily when the real problem is a chafed sense wire near the engine block or a corroded connector pin that only acts up in cold, damp conditions.
- The glow plug control module can set this code if its internal feedback circuit fails, even when all glow plugs test good, so module testing should follow wiring and plug checks.
- On some vehicles, a weak battery or poor chassis ground can cause a low voltage condition on the sense circuit during cranking, mimicking a failed component.
- After repairs, the PCM may need a relearn or several cold-start cycles before the code clears permanently, so do not assume the fix failed if the light stays on briefly.

Can I keep driving with P037E?

You can usually drive the vehicle, but cold starting may be difficult and prolonged driving with a faulty glow plug system can lead to excessive white smoke and engine wear. Avoid heavy loads and long idling until the fault is repaired, and address it promptly to prevent secondary damage.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the glow plug circuit
- Test light
- Socket set and basic hand tools

Reading P037E

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
3	Ignition system and misfire.
7E	The exact fault within that area.

Often seen with

P037D Glow Plug Sense Circuit · **P0380** Glow Plug/Heater Circuit A Malfunction · **P0670** Glow Plug Module Control Circuit · **P0671** Cylinder 1 Glow Plug Circuit · **P0672** Cylinder 2 Glow Plug Circuit



See it working

Watch the animated explainer [How a Wideband Air-Fuel Sensor Works](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p037e/>

