

GENERIC · POWERTRAIN

P037D

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P037D

Glow Plug Sense Circuit

P037D indicates that the engine control module (ECM) has detected an abnormal condition in the glow plug sense circuit, which is responsible for monitoring the operation of the glow plugs in diesel engines. The ECM uses this circuit to verify that the glow plugs are receiving power and functioning correctly during cold starts and post-start heating phases.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Ignition system and misfire

Symptoms you may notice

- Illumination of the check engine light or glow plug warning light
- Hard starting or rough idle when the engine is cold
- Excessive white smoke from the exhaust after a cold start
- Reduced engine performance or power during warm-up
- Often no symptoms besides the warning light, especially in mild climates

Common causes, most likely first

- 1 Faulty glow plug sense circuit wiring, such as an open or shorted wire
- 2 Defective glow plug control module or relay
- 3 Corroded or damaged electrical connectors at the glow plugs or control module
- 4 Failed glow plug (one or more) causing an abnormal sense signal
- 5 Poor ground connection for the glow plug circuit
- 6 ECM software issue or internal fault in the glow plug monitoring circuit

How to diagnose and fix it

- 1 Perform a visual inspection of the glow plug sense circuit wiring and connectors for damage or corrosion
- 2 Check for technical service bulletins (TSBs) related to the glow plug sense circuit for the specific vehicle
- 3 Use a scan tool to retrieve freeze frame data and verify the code is current, then clear the code and test-drive to see if it returns
- 4 Measure resistance of each glow plug and compare to specifications to identify a failed plug
- 5 Test the glow plug control module and relay according to the manufacturer's procedure
- 6 Check the sense circuit for continuity and voltage drops with a multimeter, repairing any wiring faults
- 7 If all components test good, reprogram or replace the ECM as a last resort



Glow plug sense circuit pitfalls

- A failed glow plug often does not prevent the engine from starting in warm weather, so the sense circuit code may be the only clue.
- The sense circuit may share wiring with other glow plug circuits, so a fault in one plug can affect the entire system's monitoring.
- Corrosion at the glow plug connectors is a common cause that is frequently overlooked during diagnosis.
- The ECM may set this code if the glow plug current draw is outside expected parameters, even if the plugs still heat.
- After replacing glow plugs, always clear the code and verify the sense circuit readings with a scan tool to avoid a repeat visit.

Can I keep driving with P037D?

You can generally continue driving with this code, but cold starting may be difficult and excessive smoke may occur. Avoid prolonged driving with the warning light on and schedule diagnosis soon to prevent further glow plug system damage.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Test light
- Socket set and extensions
- Manufacturer-specific diagnostic software (if available)

Reading P037D

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.
7D	The exact fault within that area.

Often seen with

P037E Glow Plug Sense Circuit Low · **P037F** Glow Plug Sense Circuit High · **P0380** Glow Plug/Heater Circuit A Malfunction · **P0670** Glow Plug Module Control Circuit · **P0671** Cylinder 1 Glow Plug Circuit



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/p037d/>

