

GENERIC · POWERTRAIN

P0682

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0682

Cylinder 12 Glow Plug Circuit

P0682 indicates that the engine control module has detected an open circuit, short to ground, or short to power on the glow plug circuit for cylinder 12. This code is specific to diesel engines equipped with a glow plug system and points to a fault in the wiring, connector, glow plug itself, or the control module's output for that individual cylinder.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Low	Intermediate	Computer and output circuits

Symptoms you may notice

- Illuminated check engine light or glow plug warning lamp
- Hard starting or rough idle when the engine is cold
- Excessive white smoke from the exhaust after a cold start
- Misfire or rough running during the warm-up phase
- Often no symptoms besides the warning light, especially in mild weather

Common causes, most likely first

- 1 Failed glow plug on cylinder 12 (open heating element)
- 2 Damaged or corroded electrical connector at the cylinder 12 glow plug
- 3 Open or shorted wire in the glow plug harness for cylinder 12
- 4 Faulty glow plug control module output for that cylinder
- 5 Poor ground connection for the glow plug circuit
- 6 Engine control module internal driver failure (rare)

How to diagnose and fix it

- 1 Clear the code and verify it returns after a cold-start cycle to confirm it is not intermittent
- 2 Visually inspect the cylinder 12 glow plug connector and harness for corrosion, chafing, or loose pins
- 3 Measure the resistance of the cylinder 12 glow plug with a multimeter and compare it to the manufacturer's specification
- 4 Check for battery voltage and ground at the glow plug connector during the glow plug pre-heat phase using a test light or multimeter
- 5 Perform a voltage drop test on the power and ground sides of the circuit to locate excessive resistance
- 6 If the circuit is intact, test the glow plug control module output for cylinder 12 with an oscilloscope or bidirectional scan tool
- 7 Replace the faulty glow plug, repair the wiring, or replace the control module as indicated by test results, then clear codes and verify

Glow plug circuit faults that fool technicians

- A glow plug can fail intermittently when hot, so a resistance check on a warm engine may pass even though the plug is faulty when cold.
- Corrosion inside the glow plug connector often mimics a failed plug, and replacing the plug without repairing the connector leads to a repeat code.
- The glow plug control module may set this code for a cylinder that is actually fine if the module's internal driver is damaged, so always verify the circuit before condemning the plug.
- Some vehicles use a glow plug module that communicates over a serial data bus, and a module fault can set multiple glow plug codes including P0682 even when the plugs are good.
- A weak battery or poor engine ground can cause low voltage during pre-heat, triggering glow plug circuit codes that disappear after the battery is replaced.

Can I keep driving with P0682?

The vehicle is generally safe to drive because the glow plug only aids cold starting, but prolonged driving with a faulty circuit can cause hard starting, rough running, and excess smoke when cold. Avoid heavy loads or extended idling until the fault is repaired, and address it before winter temperatures drop.

Tools that help

- OBD-II scan tool with bidirectional control
- Digital multimeter
- Test light
- Oscilloscope (optional for control module output testing)
- Socket set and glow plug removal tool

Reading P0682

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

Often seen with

P0670 Glow Plug Module Control Circuit · **P0671** Cylinder 1 Glow Plug Circuit · **P0672** Cylinder 2 Glow Plug Circuit · **P0673** Cylinder 3 Glow Plug Circuit · **P0683** Glow Plug Control Module to PCM Communication Circuit



See it working

Watch the animated explainer [How a Supercharger Works: Roots Blower in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0682/>

