

GENERIC · POWERTRAIN

P06F7

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P06F7

Glow Plug Control Module 2 Control Circuit Low

P06F7 indicates that the glow plug control module 2 has detected a low-voltage condition on its control circuit, meaning the wire or driver inside the module is not receiving the expected voltage when commanded. The powertrain control module (PCM) sets this code when the control circuit voltage falls below the calibrated threshold, which can prevent the glow plugs from heating properly and cause hard cold starts.

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

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Hard starting or extended cranking when the engine is cold
- Rough idle and white smoke immediately after a cold start
- Reduced engine performance and poor fuel economy during warm-up
- In some vehicles, a message indicating glow plug system service required

Common causes, most likely first

- 1 Open or shorted control wire between the glow plug control module 2 and the PCM
- 2 Corroded, loose, or damaged connector pins at the module or PCM
- 3 Failed glow plug control module 2 internal driver circuit
- 4 Blown fuse or poor ground connection supplying the module
- 5 PCM software calibration issue or internal PCM fault
- 6 Aftermarket accessories improperly tapped into the control circuit

How to diagnose and fix it

- 1 Inspect the control circuit wiring and connectors for damage, corrosion, or loose pins
- 2 Check the fuse and ground connections for the glow plug control module 2
- 3 Measure voltage on the control circuit at the module while commanding glow plugs on with a scan tool
- 4 Perform a voltage drop test on the control wire to locate excessive resistance
- 5 Substitute a known-good module or perform a module swap to confirm internal failure
- 6 Repair or replace the faulty wiring harness section or connector
- 7 Replace the glow plug control module 2 and clear the code, then verify the repair



Before replacing the glow plug module

- A low control circuit code often results from a simple chafed wire or corroded connector rather than a failed module, so always perform a thorough visual and voltage-drop inspection first.
- The control circuit is a low-current driver signal, so a standard test light can damage the PCM or module; use a high-impedance digital multimeter for all tests.
- Some vehicles require a relearn or calibration procedure after module replacement, and skipping it can cause the code to return immediately.
- A weak battery or charging system fault can cause voltage drops that mimic a control circuit failure, so verify battery and charging system health before condemning the module.
- This code can be set by a faulty glow plug relay or fuse that supplies power to the module, even though the module itself is functional.

Can I keep driving with P06F7?

You can usually drive the vehicle, but cold starting may be difficult and prolonged cranking can stress the starter and battery. Avoid repeated long cranking attempts and have the fault diagnosed soon to prevent further damage to the glow plug system.

Tools that help

- OBD-II scan tool with bidirectional control capability
- Digital multimeter with high-impedance input
- Wiring diagram for the glow plug control circuit
- Test leads and back-probe pins
- Basic hand tools for connector and module access

Reading P06F7

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.
F7	The exact fault within that area.

Often seen with

P0380 Glow Plug/Heater Circuit A Malfunction · **P0670** Glow Plug Module Control Circuit · **P0671** Cylinder 1 Glow Plug Circuit · **P06F6** Glow Plug Control Module 2 Control Circuit/Open · **P06F8** Glow Plug Control Module 2 Control Circuit High



See it working

Watch the animated explainer [Helicopter Flight Simulator: Learn the Three Controls](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p06f7/>

