



P06CF

Cylinder 11 Glow Plug Incorrect

P06CF is a generic powertrain code that indicates the engine control module has detected an incorrect electrical condition in the glow plug circuit for cylinder 11, typically an open circuit, short to ground, or short to power. The computer monitors the glow plug control circuit and sets this code when the feedback voltage or current does not match the expected value during the glow plug's activation period.

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

Symptoms you may notice

- Illumination of the check engine light or glow plug warning light on the dashboard.
- Often no symptoms besides the warning light, especially in mild weather.
- Extended cranking time or rough idle after a cold start due to one cylinder not receiving glow plug heat.
- White smoke from the exhaust immediately after a cold start, indicating incomplete combustion in cylinder 11.
- Slightly reduced fuel economy or a noticeable misfire during the warm-up phase.
- In severe cases, the engine may enter limp mode or have difficulty starting in very cold temperatures.

Common causes, most likely first

- 1 Failed glow plug on cylinder 11, such as a burned-out heating element or internal short.
- 2 Damaged or corroded electrical connector at the cylinder 11 glow plug.
- 3 Open or shorted wire in the glow plug harness for cylinder 11, often due to chafing or heat damage.
- 4 Faulty glow plug control module, which may fail to supply or regulate voltage to cylinder 11.
- 5 Poor ground connection for the glow plug circuit, causing incorrect voltage feedback.
- 6 Engine control module software or hardware fault, though this is less common.



How to diagnose and fix it

- 1 Inspect the glow plug connector and wiring for cylinder 11 for corrosion, looseness, or physical damage.
- 2 Measure the resistance of the cylinder 11 glow plug with a multimeter and compare it to the manufacturer's specification.
- 3 Check for voltage and ground signals at the glow plug connector during the glow plug activation period using a multimeter or oscilloscope.
- 4 Test the glow plug control module outputs and grounds according to the service information.
- 5 Repair or replace any damaged wiring, connectors, or the glow plug itself as needed.
- 6 Clear the diagnostic trouble codes and verify the repair by performing a cold start and monitoring glow plug operation.
- 7 If the code persists, follow the manufacturer's diagnostic flow chart for the glow plug control system, which may involve testing the engine control module.

Glow Plug Circuit Checks Before Parts Replacement

- A common mistake is replacing the glow plug without checking the connector and harness, as heat and vibration often cause wire breaks near the plug.
- The glow plug control module may set this code even when the glow plug is good, so always test the module's output before condemning the plug.
- Cylinder 11 is often in a difficult-to-reach location, and a faulty glow plug may be misdiagnosed as a compression issue if the code is ignored.
- On some vehicles, a weak battery or charging system fault can cause low voltage during glow plug operation, triggering this code intermittently.
- The code can be set by a short to power in the glow plug circuit, which may not affect glow plug performance but will illuminate the warning light.

Can I keep driving with P06CF?

You can generally continue driving with this code, but avoid heavy loads and cold starts until repaired, as a failed glow plug can cause rough running and increased emissions. In freezing conditions, starting may be difficult, so address the fault promptly.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Oscilloscope (optional for waveform analysis)
- Socket set and extensions for glow plug removal
- Torque wrench
- Electrical contact cleaner and dielectric grease



Reading P06CF

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.
CF	The exact fault within that area.

Often seen with

P0380 Glow Plug/Heater Circuit A Malfunction · **P0670** Glow Plug Module Control Circuit · **P06CE** Cylinder 10 Glow Plug Incorrect · **P06D0** Cylinder 12 Glow Plug Incorrect · **P06D1** Internal Control Module Ignition Coil Control Performance

See it working

Watch the animated explainer [How Push-Button Start Works: Keyless Ignition](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p06cf/>

