

GENERIC · POWERTRAIN

P06BF

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P06BF

Cylinder 7 Glow Plug Circuit Range/Performance

P06BF indicates that the engine control module has detected a range or performance fault in the glow plug circuit for cylinder 7, typically on diesel engines. The module monitors the circuit's electrical behavior and flags an issue when the current or voltage falls outside the expected range during glow plug activation.

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 rough idle when the engine is cold
- Excessive white smoke from the exhaust after a cold start
- Misfire or stumbling during the first few minutes of operation
- Reduced fuel economy during warm-up
- In rare cases, a no-start condition in very cold weather

Common causes, most likely first

- 1 Faulty glow plug on cylinder 7 (open or shorted element)
- 2 Damaged or corroded electrical connector at the glow plug
- 3 Chafed or broken wire in the glow plug circuit
- 4 Failed glow plug control module or relay
- 5 Poor ground connection for the glow plug circuit
- 6 Engine control module software issue or internal fault (less common)

How to diagnose and fix it

- 1 Scan all modules for stored codes and freeze-frame data to confirm P06BF is current
- 2 Visually inspect the cylinder 7 glow plug, connector, and wiring for damage or corrosion
- 3 Measure glow plug resistance with a multimeter and compare to the manufacturer's specification
- 4 Check for voltage and ground at the glow plug connector during the glow plug activation period
- 5 Test the glow plug control module and its wiring if the plug and circuit test good
- 6 Replace the faulty glow plug or repair damaged wiring as needed
- 7 Clear codes and verify the repair with a road test or glow plug activation test



Glow Plug Circuit Checks That Prevent Misdiagnosis

- A glow plug that tests good on resistance can still cause P06BF if the control module's current monitoring circuit is faulty, so always verify control side operation.
- Corroded terminals at the glow plug are a frequent cause that is often overlooked because the plug itself tests fine.
- P06BF can be set by a weak battery or poor ground that causes low voltage during glow plug activation, mimicking a failed plug.
- On some vehicles, the glow plug control module is integrated into the engine control module, making diagnosis more involved and expensive.
- Do not replace all glow plugs just because one code is set; address only the affected cylinder unless the others test out of specification.

Can I keep driving with P06BF?

You can generally continue driving, but cold starting and warm-up performance may be affected, and prolonged driving with a faulty glow plug can lead to carbon buildup or further electrical damage. Avoid heavy loads or high speeds until the fault is repaired, especially in cold weather.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Glow plug socket set
- Wiring diagram for the vehicle
- Basic hand tools

Reading P06BF

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.
BF	The exact fault within that area.

Often seen with

P06B6 Internal Control Module Knock/Combustion Vibration Sensor Pr · **P06B7** Internal Control Module Knock/Combustion Vibration Sensor Pr · **P06B8** Internal Control Module Non-Volatile Random Access Memory (N · **P06B9** Cylinder 1 Glow Plug Circuit Range/Performance · **P06BA** Cylinder 2 Glow Plug Circuit Range/Performance



See it working

Watch the animated explainer [How Airbags Work: A 50 km/h Crash in Slow Motion](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p06bf/>

