

FORD · POWERTRAIN

P1396

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1396 · Ford

Glow Plug Monitor Fault Bank 2

P1396 on Ford vehicles indicates that the powertrain control module (PCM) has detected an abnormal signal from the glow plug monitor circuit for bank 2, which is the cylinder bank that does not contain cylinder number one. The PCM expects a specific voltage pattern on the monitor circuit when the glow plugs are commanded on, and this code sets when the feedback voltage stays outside the expected range for a calibrated time.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Ford specific	Medium	Intermediate	Ignition system and misfire

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Hard cold starting or extended cranking before the engine fires
- Rough idle and white smoke immediately after a cold start
- Reduced engine performance and poor fuel economy during warm-up
- In cold weather, the engine may misfire or stall shortly after starting

Common causes, most likely first

- 1 Failed glow plug on one or more cylinders in bank 2
- 2 Open or chafed wiring in the bank 2 glow plug harness or connector
- 3 Faulty glow plug control module (GPCM) or glow plug relay for bank 2
- 4 Corroded or loose electrical connectors at the glow plugs or module
- 5 High-resistance ground connection for the glow plug monitor circuit
- 6 PCM internal fault in the glow plug monitor input circuit (rare)



How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, and record freeze-frame data to confirm the fault conditions.
- 2 Visually inspect the bank 2 glow plug harness, connectors, and ground points for chafing, corrosion, or loose pins.
- 3 Measure the resistance of each bank 2 glow plug with a digital multimeter and compare to the manufacturer's specification.
- 4 Check for battery voltage and ground at the glow plug control module connector during a commanded glow plug on-cycle.
- 5 Back-probe the glow plug monitor signal wire at the PCM and compare the voltage pattern to the expected values in the Ford service information.
- 6 If the monitor circuit voltage is incorrect, isolate the fault by testing continuity and resistance of the signal wire between the module and PCM.
- 7 Replace the faulty glow plug, harness, or control module as indicated by the test results, then clear codes and verify the repair with a cold-start test.

Glow plug monitor faults that fool technicians

- A single failed glow plug in bank 2 can set P1396 even though the engine starts and runs acceptably in mild weather, so the code is often ignored until winter.
- The glow plug monitor circuit is sensitive to voltage drops across corroded connectors, and a connector that looks clean externally can still have high resistance on the monitor pin.
- Technicians sometimes replace the glow plug control module when the real fault is a chafed signal wire behind the engine, so always perform a wiggle test on the harness while watching live data.
- P1396 does not always mean the glow plugs themselves are bad; a poor ground for the monitor circuit can produce the same out-of-range feedback voltage.
- After repairs, the PCM may need a drive cycle with a cold soak before the monitor runs and clears the code, so do not assume the fix failed if the light stays on immediately.

Can I keep driving with P1396?

You can usually drive the vehicle with P1396 set, but cold starting may be difficult and the engine may run rough until warm; avoid extended driving in freezing conditions until the fault is repaired.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Test light
- Back-probe kit
- Ford service information or wiring diagrams



Reading P1396

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (Ford): its meaning depends on the make.
- 3** Ignition system and misfire.
- 96** The exact fault within that area.

Often seen with

P1397 Engine Speed Wheel Adaptation At Limit · **P1397** Variable Valve Timing Solenoid B Circuit Low Input · **P1397** Wheel Speed Sensor 2 G-Sensor Circuit Low Voltage · **P1397** System Voltage Out Of Self Test Range · **P1397** Wheel Speed Sensor 2, G-Sensor Circuit Low Voltage · **P1397** Camshaft Position Sensor B Circuit Bank 1 · **P0380** Glow Plug/Heater Circuit A Malfunction · **P0381** Glow Plug/Heater Indicator Circuit Malfunction · **P0670** Glow Plug Module Control Circuit · **P0672** Cylinder 2 Glow Plug Circuit

See it working

Watch the animated explainer [How Regenerative Braking Works in Electric Cars](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/ford-p1396/>

