

GENERIC · POWERTRAIN

P05FC

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P05FC

Cold Start Fuel Pressure Performance Bank 2

P05FC indicates that the powertrain control module detected a fuel pressure performance problem specifically during a cold start on bank 2 of the engine. The computer compares the actual fuel pressure measured during the first few seconds of cranking and initial idle against an expected pressure profile, and it sets this code when the pressure does not rise quickly enough or deviates from the calibrated target for that temperature.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Professional	Vehicle speed, idle control and auxiliary inputs

Symptoms you may notice

- Extended cranking time before the engine fires, especially when the engine is cold
- Rough idle or a brief stumble immediately after a cold start that may smooth out as the engine warms
- A stored P05FC code with the malfunction indicator lamp illuminated, often with no other noticeable symptoms
- Intermittent hard starting that is worse on cold mornings or after the vehicle has sat overnight
- Slight loss of power or hesitation during the first few minutes of driving after a cold start
- In some cases, a pending code that appears and clears without the driver feeling anything unusual

Common causes, most likely first

- A weak or failing fuel pump that cannot deliver the required cold-start pressure, particularly on the bank 2 side of a dual-circuit system
- A leaking or sticking fuel pressure regulator that bleeds pressure down overnight or fails to ramp up quickly on a cold start
- A restricted fuel filter or clogged in-tank strainer that limits flow when demand is highest during cold cranking
- A faulty fuel pressure sensor on bank 2 that reports lower-than-actual pressure and triggers the performance fault
- A small air leak or restriction in the bank 2 fuel rail or supply line that affects pressure buildup during cold starts
- A weak fuel pump check valve that allows pressure to bleed back to the tank when the engine is off, causing long crank times
- Low fuel level or contaminated fuel that causes the pump to cavitate or deliver inconsistent pressure during cold starts



How to diagnose and fix it

- 1 Connect a scan tool and record freeze-frame data for P05FC, paying attention to engine coolant temperature and fuel pressure readings at the time the fault set
- 2 Perform a visual inspection of the bank 2 fuel lines, connections, and pressure sensor wiring for leaks, chafing, or corrosion
- 3 Measure actual fuel pressure with a mechanical gauge during a cold start and compare it to the manufacturer's specification for that temperature
- 4 Command the fuel pump on with the scan tool and watch for pressure bleed-down after the pump stops to check the check valve and regulator
- 5 Test the bank 2 fuel pressure sensor signal against a known-good gauge reading to rule out a sensor reporting error
- 6 Replace the fuel filter if pressure and flow tests indicate a restriction, then re-test cold-start pressure behavior
- 7 If pressure remains low after filter replacement, diagnose the fuel pump and pressure regulator circuit, including relay and wiring, before replacing the pump

Cold-start pressure faults that fool technicians

- A P05FC can set from a fuel pressure sensor that reads correctly at operating temperature but drifts low when cold, so always compare sensor data to a mechanical gauge during an actual cold start rather than a warm idle.
- Many technicians replace the fuel pump only to find the real problem was a leaking check valve inside the pump assembly or a pressure regulator that bleeds down overnight, so a bleed-down test after key-off is essential before parts are ordered.
- This code is bank-specific, and on engines with a single fuel pump feeding two rails, a bank 2 restriction or sensor fault can set P05FC while bank 1 pressure remains within specification, which points away from a global pump failure.
- Cold-start fuel pressure performance is sensitive to battery voltage and cranking speed, so a weak battery or slow starter can cause low measured pressure during cranking and set this code even when the fuel system is healthy.
- A restricted fuel filter or a pinched supply line often causes this code to appear only on the first start of the day, and the fault may not reproduce during a warm shop visit, so leaving the vehicle overnight for testing is often necessary.

Can I keep driving with P05FC?

You can generally drive the vehicle to a repair shop, but avoid hard acceleration and long trips until the fault is diagnosed because a failing fuel pump can worsen and cause a no-start or stall. If the engine cranks for a long time or stalls repeatedly, stop driving and arrange a tow to prevent being stranded.



Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Fuel pressure test gauge kit with appropriate adapters
- Digital multimeter for testing sensor and pump circuits
- Factory service information for cold-start fuel pressure specifications
- Fuel line disconnect tools
- Battery load tester or charger to ensure stable cranking voltage

Reading P05FC

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
5	Vehicle speed, idle control and auxiliary inputs.
FC	The exact fault within that area.

Often seen with

P0087 Fuel Rail/System Pressure - Too Low · **P0088** Fuel Rail/System Pressure - Too High · **P0191** Fuel Rail Pressure Sensor Circuit Range/Performance · **P0230** Fuel Pump Primary Circuit Malfunction · **P05FB** Stop-Start Status Signal Circuit High

See it working

Watch the animated explainer [How a Starter Motor Works: Pre-Engaged Starter](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p05fc/>

