

GENERIC · POWERTRAIN

P2B0F

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2B0F

Cold Start Cylinder 8 Injection Pulse Performance

P2B0F indicates that the engine control module has detected an abnormal fuel injection pulse performance for cylinder 8 during a cold start. The computer monitors injector electrical current and combustion efficiency, and it sets this code when the pulse width or response deviates from the expected profile while the engine is warming up.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Hybrid propulsion

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Rough idle or misfire immediately after a cold start that may improve as the engine warms
- Slight hesitation or stumble during the first few seconds of acceleration from a cold start
- Increased fuel consumption during warm-up
- Occasional engine vibration felt through the steering wheel or seat when the engine is cold

Common causes, most likely first

- 1 Faulty or clogged fuel injector on cylinder 8
- 2 Wiring harness damage or poor electrical connection at the cylinder 8 injector
- 3 Weak or failing ignition coil or spark plug on cylinder 8 causing incomplete combustion
- 4 Low fuel pressure or restricted fuel flow affecting the cold-start enrichment
- 5 Carbon buildup on intake valves or injector tips reducing fuel delivery
- 6 Engine control module software calibration issue or internal fault

How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, and record freeze-frame data to confirm the cold-start conditions
- 2 Inspect the cylinder 8 injector connector and wiring for corrosion, chafing, or loose pins
- 3 Perform a fuel injector balance test or listen to the injector with a stethoscope during a cold start
- 4 Check fuel pressure and compare it to specification, especially during the first minute after a cold start
- 5 Swap the cylinder 8 ignition coil and spark plug with a known-good cylinder to see if the misfire moves
- 6 Run a compression test and cylinder leak-down test to rule out mechanical issues on cylinder 8
- 7 If electrical and fuel checks pass, reflash or replace the engine control module as a last resort



Cold-start injector faults often misdiagnosed

- A clogged or partially restricted injector can flow enough fuel when warm but fail to deliver the extra cold-start enrichment, setting this code without a permanent misfire.
- Wiring problems at the injector connector are frequently overlooked because the harness is hidden under the intake manifold and damage may only appear when the engine is cold and vibration is highest.
- This code can be set by a failing ignition coil that only breaks down under the rich cold-start mixture, so swapping coils is a quick and cheap diagnostic step.
- A weak battery or poor ground can cause the injector pulse to be distorted during cranking, mimicking an injector fault and leading to unnecessary replacement.
- After repairs, the code may remain stored until several cold-start cycles are completed, so clearing it and verifying with a proper drive cycle is essential.

Can I keep driving with P2B0F?

You can usually continue driving with this code, but avoid hard acceleration and prolonged idling until it is diagnosed. If the check engine light begins flashing or you feel a persistent misfire, stop driving and seek professional service to prevent catalytic converter damage.

Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter for checking injector resistance and wiring continuity
- Fuel pressure gauge
- Stethoscope or mechanic's stethoscope for listening to injector operation
- Compression tester
- Basic hand tools for swapping coils and plugs

Reading P2B0F

P	Powertrain: engine, transmission and emissions.
2	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
B	Hybrid propulsion.
0F	The exact fault within that area.

Often seen with

P0172 System Too Rich (Bank 1) · **P0208** Injector Circuit/Open - Cylinder 8 · **P0308** Cylinder 8 Misfire Detected · **P2146** Fuel Injector Group 'A' Supply Voltage Circuit/Open · **P2B0E** Cold Start Cylinder 7 Injection Pulse Performance



See it working

Watch the animated explainer [How an Oxygen Sensor Works: Live 3D Cutaway](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2b0f/>

