

GENERIC · POWERTRAIN

P00BB

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P00BB

Fuel Injector Insufficient Flow - Forced Limited Power

P00BB indicates that the powertrain control module has detected insufficient fuel flow through one or more fuel injectors while the engine is operating in a forced limited power mode, which is a protective strategy that restricts engine output to prevent damage. The computer typically monitors injector performance through fuel trim corrections, crankshaft speed fluctuations, or circuit feedback, and it sets this code when the measured flow falls below the expected threshold for the commanded pulse width.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	High	Professional	Fuel and air metering and auxiliary emission controls

Symptoms you may notice

- Illuminated check engine light, often accompanied by a reduced power message or limp-home mode
- Noticeable loss of engine power and sluggish acceleration, especially under load
- Rough idle, misfire, or shaking that may worsen when the engine is cold
- Decreased fuel economy and a rich or lean exhaust smell depending on the failure mode
- Often no symptoms besides the warning light if the flow reduction is marginal and the forced limited power strategy is not yet aggressive

Common causes, most likely first

- 1 Clogged or restricted fuel injector due to varnish, debris, or ethanol-related deposits
- 2 Weak or failing fuel pump that cannot maintain adequate pressure and volume under demand
- 3 Restricted fuel filter or fuel line causing low delivery to the injectors
- 4 Faulty fuel pressure regulator or a leaking diaphragm that bleeds pressure
- 5 Injector electrical connector corrosion, chafed wiring, or high resistance in the injector circuit
- 6 Internal injector mechanical failure such as a stuck pintle or a worn nozzle
- 7 Contaminated fuel or a fuel tank pickup issue that introduces air or debris into the system



How to diagnose and fix it

- 1 Perform a visual inspection of the fuel injector connectors, wiring harness, and vacuum lines for obvious damage or disconnection
- 2 Measure fuel pressure and volume at the rail with a gauge and compare to the manufacturer's specification under key-on, idle, and load conditions
- 3 Check fuel trim and injector balance data with a scan tool to identify which cylinder or injector is underperforming
- 4 Test injector resistance and listen to each injector with a stethoscope or noid light to confirm electrical pulsing
- 5 Run a professional injector cleaning service or use a concentrated fuel system cleaner if deposits are suspected, then recheck fuel trims
- 6 Replace the fuel filter and inspect the fuel tank for contamination if pressure and volume are low
- 7 Replace the faulty injector or fuel pump only after electrical and pressure tests confirm the failed component

Why forced limited power changes the diagnosis

- Forced limited power is a software-driven protection mode, so the code can set even when the injector still flows enough fuel for normal driving but not enough for the power level the computer commands.
- A clogged injector often causes a lean condition on one bank that the oxygen sensor and fuel trims try to correct, so looking at long-term fuel trim per bank is more revealing than a simple injector resistance test.
- Low fuel pressure from a weak pump can mimic a bad injector on every cylinder, so always verify rail pressure and volume before condemning any injector.
- Ethanol-blended fuels and infrequent fuel filter changes are common culprits behind insufficient injector flow that develops gradually and sets this code only under heavy load.
- The code does not always mean the injector is electrically dead; a mechanically restricted injector can pass a resistance test and still trigger P00BB because the computer measures flow indirectly through crankshaft speed or fuel trim.

Can I keep driving with P00BB?

Because forced limited power mode restricts engine output and the underlying lean or rich condition can damage catalytic converters or cause misfires, limit driving to a short trip to a repair shop and avoid heavy acceleration, towing, or highway merging until the fault is repaired.

Tools that help

- OBD-II scan tool with live data and fuel trim capability
- Fuel pressure gauge and volume test kit
- Digital multimeter for injector resistance and circuit testing
- Noid light or injector pulse tester
- Mechanic's stethoscope for listening to injector operation
- Factory service information for fuel pressure specifications and injector balance procedures



Reading P00BB

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 0** Fuel and air metering and auxiliary emission controls.
- BB** The exact fault within that area.

Often seen with

P0087 Fuel Rail/System Pressure - Too Low · **P0171** System Too Lean (Bank 1) · **P0201** Injector Circuit Malfunction - Cylinder 1 · **P0300** Random/Multiple Cylinder Misfire Detected · **P2146** Fuel Injector Group 'A' Supply Voltage Circuit/Open

See it working

Watch the animated explainer [Four-Stroke Engine Notebook: The Otto Cycle Explained](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p00bb/>

