

GENERIC · POWERTRAIN

P02B0

OBD-II TROUBLE CODE

P02B0

Cylinder 6 - Injector Restricted

P02B0 indicates that the powertrain control module has detected an abnormal restriction in the fuel injector circuit for cylinder 6, typically by monitoring current flow or circuit resistance and finding it outside the expected range. The restriction is electrical or mechanical within the injector itself or its wiring, not a generic misfire code, and it tells you the computer sees the injector as not flowing the commanded amount of fuel.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Fuel and air metering (injector circuits)

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms besides the warning light
- Rough idle or a noticeable vibration that feels like a miss at idle and low speeds
- Hesitation or stumble during acceleration, especially when the engine is under load
- Reduced fuel economy as the engine compensates for a lean or rich condition on one cylinder
- Occasional hard starting or a slight surge at steady cruise if the restriction is intermittent
- A faint fuel odor or exhaust smell in some cases when the injector is stuck partially closed

Common causes, most likely first

- 1 Clogged or restricted fuel injector nozzle due to fuel varnish or debris
- 2 Failed fuel injector solenoid winding, causing high or low circuit resistance
- 3 Damaged or corroded injector pigtail connector or terminal tension loss
- 4 Chafed or open injector harness wire between the PCM and the injector
- 5 Internal PCM driver fault for that injector circuit, though this is less common
- 6 Contaminated fuel or a failing fuel filter that sends debris to the injector
- 7 A shorted injector coil that draws excessive current and sets the restriction code



How to diagnose and fix it

- 1 Verify the code with a scan tool and check for related misfire or fuel trim codes before touching any parts
- 2 Inspect the cylinder 6 injector connector and harness for corrosion, chafing, or loose terminals
- 3 Measure injector resistance with a multimeter and compare it to the manufacturer's specification
- 4 Perform an injector balance or flow test, or use a noid light to confirm the PCM is commanding the injector
- 5 Run a fuel pressure and volume test to rule out a supply restriction upstream of the injector
- 6 Remove and flow-test or replace the cylinder 6 injector if electrical and fuel supply checks pass
- 7 Clear the code and perform a road test to confirm the repair and ensure the code does not return

Why cylinder 6 injector codes get misdiagnosed

- A restricted injector can pass a resistance test because the coil is fine while the nozzle is clogged, so electrical checks alone will miss the fault.
- Technicians often replace the injector when the real problem is a corroded connector pin that adds resistance and mimics a restricted injector.
- P02B0 can be set by a fuel pressure problem upstream, so always check supply pressure before condemning the injector.
- An intermittent harness chafe may only set the code on rough roads, so wiggle-testing the harness while watching live data is essential.
- This code does not always mean the injector is bad; a PCM driver fault or a shorted coil can set the same restriction code.

Can I keep driving with P02B0?

You can usually drive the vehicle to a repair shop, but avoid heavy acceleration and towing because a restricted injector can cause a lean condition that damages the catalytic converter over time. If the check engine light begins flashing, stop driving and have the vehicle towed.

Tools that help

- OBD-II scan tool with live data and injector balance capability
- Digital multimeter with resistance and current measurement
- Noid light or injector pulse tester
- Fuel pressure gauge
- Hand tools for connector and injector removal



Reading P02B0

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 2** Fuel and air metering (injector circuits).
- B0** The exact fault within that area.

Often seen with

P0174 System Too Lean (Bank 2) · **P0206** Injector Circuit/Open - Cylinder 6 · **P0263** Cylinder 1 Contribution/Balance · **P02B1** Cylinder 6 - Injector Leaking · **P0306** Cylinder 6 Misfire Detected

See it working

Watch the animated explainer [How Variable Valve Timing Works: Cam Phaser and VVT Solenoid](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p02b0/>

