

GENERIC · POWERTRAIN

P2C28

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2C28

Fuel Injector Group B Supply Sense Circuit High

P2C28 indicates that the powertrain control module has detected an abnormally high voltage on the supply sense circuit for fuel injector group B, which is a feedback line that monitors the voltage feeding the injectors in that group. The circuit is expected to sit within a specific voltage window, and a high reading tells the module that the supply side is shorted to voltage or that the return path is compromised.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Professional

AREA

Hybrid propulsion

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Rough idle or misfire if the high voltage condition affects injector operation
- Reduced engine power or a limp-home mode in some vehicles
- Poor fuel economy or a rich-running condition if injectors are held open
- Intermittent stalling or hesitation during acceleration
- A no-start condition in severe cases where injector supply is disrupted

Common causes, most likely first

- 1 A short to voltage on the supply sense circuit wiring, often from chafed insulation against a power wire
- 2 A faulty fuel injector group B supply sense circuit connection at the injector harness or PCM connector
- 3 A failed fuel injector with an internal short that backfeeds voltage onto the sense line
- 4 A defective powertrain control module with an internal driver or sensing fault
- 5 Corrosion or water intrusion in the injector harness connector causing a high-resistance path
- 6 A damaged or improperly routed engine wiring harness near hot or moving components



How to diagnose and fix it

- 1 Connect a scan tool and record the freeze-frame data to confirm the code and check for related injector or misfire codes
- 2 Inspect the fuel injector group B harness and connectors for chafing, corrosion, or loose pins, repairing as needed
- 3 Measure the supply sense circuit voltage with a multimeter and compare it to the manufacturer's specification
- 4 Disconnect the injectors in group B one at a time and observe whether the high voltage reading changes, isolating a faulty injector
- 5 Check for continuity and short-to-voltage on the sense circuit between the injector connector and the PCM, repairing the wire if damaged
- 6 If the wiring and injectors test good, substitute a known-good PCM or perform a module relearn according to service information
- 7 Clear the code and road-test the vehicle to verify the repair and ensure the code does not return

What the supply sense circuit really monitors

- The supply sense circuit is a low-current feedback line, so a high voltage reading often comes from a short to a neighbouring power wire rather than from the injector itself.
- A faulty injector in group B can backfeed voltage onto the sense line even when the injector still fires, so a simple resistance test may not reveal the problem.
- Technicians sometimes replace the PCM prematurely when the real fault is a chafed harness section hidden behind the engine or near the exhaust manifold.
- This code can set intermittently due to vibration or heat, so a wiggle test of the harness while monitoring live data is a valuable diagnostic step.
- Group B injectors are often on the same fused supply as other components, so a blown fuse or shared power feed issue can mimic a sense circuit fault.

Can I keep driving with P2C28?

The vehicle may be safe to drive short distances to a repair shop if it runs normally, but avoid heavy acceleration or towing because a high-voltage supply fault can lead to injector damage or a sudden misfire. If the engine runs rough, misfires, or enters limp mode, stop driving and arrange a tow to prevent catalytic converter damage.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter with voltage and resistance functions
- Wiring diagram and service information for the specific vehicle
- Back probe pins and a test light
- Hand tools for harness and connector access



Reading P2C28

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

Often seen with

P0200 Injector Circuit Malfunction · **P0261** Cylinder 1 Injector Circuit Low · **P0264** Cylinder 2 Injector Circuit Low · **P2C27** Fuel Injector Group B Supply Sense Circuit Low · **P2C29** Turbocharger/Supercharger Bypass Valve B Stuck

See it working

Watch the animated explainer [Master the Four-Stroke Engine Cycle](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2c28/>

