

GENERIC · POWERTRAIN

P2C27

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2C27

Fuel Injector Group B Supply Sense Circuit Low

P2C27 indicates that the powertrain control module has detected a low voltage condition on the supply sense circuit for fuel injector group B, which is a set of injectors that share a common power feed. The circuit is monitored to ensure the injectors receive adequate voltage for proper opening and closing; a low reading means the computer sees less voltage than expected on that supply line.

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

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Rough idle or misfire under load if the low voltage affects injector operation
- Reduced engine power or hesitation during acceleration
- Poor fuel economy due to incomplete combustion
- In rare cases, the engine may stall or be hard to start
- A faint fuel odor may be present if injectors are not firing correctly

Common causes, most likely first

- 1 A weak or failing battery or charging system causing overall low voltage
- 2 Corroded, loose, or damaged wiring or connectors on the injector group B supply circuit
- 3 A faulty fuel injector with an internal short or high resistance affecting the sense circuit
- 4 A blown fuse or faulty relay that supplies power to the injector group
- 5 A defective powertrain control module voltage sensing circuit or internal fault
- 6 High resistance in a ground connection shared by the injectors or the control module
- 7 Aftermarket accessories or improper wiring repairs that add excessive load to the circuit



How to diagnose and fix it

- 1 Perform a battery and charging system test to rule out low system voltage as the root cause
- 2 Inspect the injector group B supply circuit wiring and connectors for corrosion, chafing, or looseness
- 3 Check the fuse and relay that provide power to the injector group and replace if faulty
- 4 Measure voltage at the injector supply sense circuit with a multimeter and compare to specifications
- 5 Test each fuel injector in group B for resistance and compare to the manufacturer's specification
- 6 Perform a voltage drop test on the ground circuit to ensure a solid connection
- 7 If all external circuits and components test good, diagnose the powertrain control module for an internal sensing fault

What the supply sense circuit really monitors

- The supply sense circuit is a low-current monitoring line, so a fault code can set even when the injectors still fire normally; many vehicles exhibit no driveability symptoms.
- A weak battery or failing alternator is a common root cause that is often overlooked because the code points to the injector circuit, not the charging system.
- Corrosion inside a connector can increase resistance without visibly damaging the wire, so a thorough wiggle test and voltage drop measurement are essential.
- The code does not necessarily mean the injectors themselves are bad; the supply circuit, fuse, relay, and grounds must be verified first.
- On some vehicles, the injector group B supply is shared with other components, so a fault in a seemingly unrelated circuit can set this code.

Can I keep driving with P2C27?

If the check engine light is on but the engine runs smoothly, you can drive cautiously to a repair shop, but avoid heavy loads and long trips. If you notice misfiring, rough running, or stalling, stop driving and have the vehicle towed to prevent catalytic converter damage or unsafe driving conditions.

Tools that help

- OBD-II scan tool
- Digital multimeter
- Test light
- Wiring diagram for the specific vehicle
- Battery load tester
- Socket set and trim removal tools



Reading P2C27

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

Often seen with

P0200 Injector Circuit Malfunction · **P0201** Injector Circuit Malfunction - Cylinder 1 · **P0202** Injector Circuit Malfunction - Cylinder 2 · **P2C26** Fuel Injector Group B Supply Sense Circuit · **P2C28** Fuel Injector Group B Supply Sense Circuit High

See it working

Watch the animated explainer [Manual Car Driving Simulator: Learn Clutch Control](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2c27/>

