

GENERIC · POWERTRAIN

P216F

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P216F

Fuel Injector Group F Supply Voltage Circuit High

P216F indicates that the powertrain control module (PCM) has detected an abnormally high voltage on the supply circuit for fuel injector group F, which is a set of injectors grouped together by the manufacturer's control strategy. The PCM monitors the voltage on the injector driver circuit and sets this code when the voltage exceeds the expected range, typically indicating a short to power or an open circuit in the supply side.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Rough idle or misfire if the affected injector group is not firing correctly
- Reduced engine performance or power loss under load
- Poor fuel economy due to incorrect fuel delivery
- Possible engine hesitation or stalling when accelerating

Common causes, most likely first

- 1 Faulty fuel injector with an internal short to power
- 2 Damaged or chafed wiring harness in the injector supply circuit
- 3 Corroded or loose electrical connector at the injector or PCM
- 4 Failed PCM driver for the injector group
- 5 Aftermarket accessories improperly wired into the injector circuit
- 6 Moisture intrusion into the wiring harness or connectors

How to diagnose and fix it

- 1 Inspect the injector group F wiring harness and connectors for visible damage, corrosion, or loose pins
- 2 Disconnect the injectors in group F and check for a short to power on the supply circuit using a multimeter
- 3 Test each injector's resistance and compare to specifications to identify a faulty injector
- 4 Check for continuity and voltage drop across the supply circuit from the PCM to the injectors
- 5 Inspect for aftermarket wiring or accessories that may be tapping into the injector circuit
- 6 If the circuit tests good, test the PCM driver output with an oscilloscope or substitute a known-good PCM
- 7 Repair or replace damaged wiring, connectors, or injectors as needed, then clear the code and verify



Injector Group F Supply Circuit Pitfalls

- A high voltage code on an injector supply circuit often results from a short to power rather than a failed injector, so testing the circuit before replacing parts saves time and money.
- Some manufacturers group injectors in pairs or banks for control and diagnostics, so group F may not correspond to a single physical injector, and the fault may affect multiple cylinders.
- A loose ground connection for the PCM or engine can cause erratic voltage readings on injector circuits, leading to false high-voltage codes.
- Aftermarket alarm systems or remote starters that tap into injector wiring are a common cause of this code, especially if installed poorly.
- The code may set intermittently due to vibration or temperature changes, so a wiggle test of the harness while monitoring live data can reveal the fault.

Can I keep driving with P216F?

If the check engine light is on but the engine runs smoothly, you can drive cautiously to a repair shop, but avoid heavy acceleration or towing. If the engine misfires, runs rough, or loses power, stop driving and have the vehicle towed to prevent damage to the catalytic converter or engine.

Tools that help

- OBD-II scanner with live data capability
- Digital multimeter
- Oscilloscope (optional for advanced diagnostics)
- Wiring diagram for the specific vehicle
- Test light
- Injector noid light or injector tester

Reading P216F

P	Powertrain: engine, transmission and emissions.
2	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
1	Fuel and air metering.
6F	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 · **P216E** Fuel Injector Group F Supply Voltage Circuit Low · **P2170** Exhaust Pressure Regulator Vent Solenoid Control Circuit Low



See it working

Watch the animated explainer [How a Gyroscope Works: Gimbals and Precession](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p216f/>

