

GM · POWERTRAIN

P1217

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1217 · GM

Fuel Solenoid Response Time Too Long

P1217 on a GM vehicle means the powertrain control module (PCM) commanded the fuel control solenoid and did not see the expected change in fuel delivery within the calibrated time window. The PCM monitors the solenoid circuit and the resulting fuel pressure or injector response, and it sets this code when the response is slower than the model predicts.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	GM specific	Medium	Intermediate	Fuel and air metering (injector circuits)

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Extended cranking before the engine starts, especially when cold
- Rough idle or a stumble right after startup
- Hesitation or a flat spot during light acceleration
- Slightly reduced fuel economy over time
- In rare cases, a no-start condition if the solenoid fails completely

Common causes, most likely first

- 1 Dirty or contaminated fuel control solenoid valve causing sluggish movement
- 2 Failed fuel control solenoid winding or internal mechanical wear
- 3 Wiring harness damage, corrosion, or loose connector pins at the solenoid
- 4 Restricted fuel filter or fuel line reducing the pressure differential the solenoid needs to respond
- 5 Low fuel pressure from a weak in-tank pump or faulty pressure regulator
- 6 PCM calibration issue or faulty driver circuit inside the PCM
- 7 Wrong viscosity or contaminated engine oil affecting a solenoid that is oil-controlled on some GM applications



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data for P1217, then verify the code is current and not history
- 2 Inspect the fuel control solenoid connector and harness for corrosion, chafing, and loose pins
- 3 Measure solenoid resistance and compare it to the GM service specification for the exact engine
- 4 Check fuel pressure and delivery volume at the rail, and replace the fuel filter if restriction is found
- 5 Command the solenoid with a scan tool and watch for the expected fuel pressure or injector pulse-width change
- 6 Remove and clean or replace the fuel control solenoid if it fails the command test
- 7 After repair, clear codes and run a drive cycle to confirm the response time now falls within range

What the fuel solenoid response test really checks

- The PCM does not measure solenoid response directly; it infers it from fuel pressure or injector behavior, so a lazy fuel pump can set P1217 without any solenoid fault at all.
- A marginal battery or charging system that drops voltage during cranking can slow solenoid actuation enough to set this code intermittently.
- On some GM engines the fuel control solenoid is oil-pressure-fed, so sludge or the wrong oil viscosity can cause a slow response that looks electrical.
- Technicians often replace the solenoid first and miss a restricted fuel filter or collapsed fuel line that was the real cause of the slow response.
- P1217 can appear after a PCM reflash or battery disconnect if the adaptive fuel learn has not been relearned, so clear and relearn before condemning parts.

Can I keep driving with P1217?

You can usually drive the vehicle to a shop, but avoid hard acceleration and long trips until the fault is diagnosed because a worsening solenoid can cause a no-start or lean condition. If the engine cranks but will not start, stop driving and have it towed.

Tools that help

- Scan tool with GM-specific bidirectional controls
- Digital multimeter
- Fuel pressure gauge
- Basic hand tools and socket set
- Wiring diagram for the specific GM platform



Reading P1217

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (GM): its meaning depends on the make.
- 2** Fuel and air metering (injector circuits).
- 17** The exact fault within that area.

Often seen with

P1216 Cylinder 4 Fuel Injector Circuit Short To B+ · **P1216** Fuel Injector 4 Circuit High Voltage · **P1216** Fuel Solenoid Response Time Too Short · **P1216** Pedal Position Sensor C Circuit High Input · **P1216** Fuel Solenoid Response Time Too Short · **P0087** Fuel Rail/System Pressure - Too Low · **P0089** Fuel Pressure Regulator 1 Performance · **P0171** System Too Lean (Bank 1) · **P0230** Fuel Pump Primary Circuit Malfunction

See it working

Watch the animated explainer [How Push-Button Start Works: Keyless Ignition](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/gm-p1217/>

