

FORD · POWERTRAIN

P1219

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1219 · Ford

CID Low

P1219 on Ford vehicles means the powertrain control module has detected a low signal from the fuel injector control circuit, specifically the circuit that carries the cylinder identification signal used to sequence injection events. The computer compares the expected voltage on that circuit to what it actually sees and flags the code when the signal stays below the acceptable threshold for a calibrated period.

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

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Rough idle or misfire that may feel like a slight shake at stoplights
- Hesitation or stumble during light acceleration from a stop
- Reduced fuel economy as the computer defaults to a less efficient injection strategy
- Intermittent stalling or hard starting in more severe cases
- A faint electrical burning smell or visible chafed wiring near the injector harness

Common causes, most likely first

- 1 Chafed, corroded, or broken wiring in the cylinder identification circuit between the injector harness and the powertrain control module
- 2 Failed crankshaft position sensor or camshaft position sensor that supplies the cylinder identification reference signal
- 3 Loose or contaminated electrical connector at the fuel injector or sensor feeding the circuit
- 4 Internal fault in the powertrain control module driver circuit for the injector control line
- 5 Aftermarket alarm or remote start wiring spliced into the injector harness causing a voltage drop
- 6 Engine oil or coolant intrusion into the harness connector causing a short to ground



How to diagnose and fix it

- 1 Inspect the injector harness and cylinder identification sensor connectors for corrosion, loose pins, or chafed insulation before replacing any parts
- 2 Measure resistance and voltage drop on the cylinder identification circuit from the sensor to the powertrain control module and compare to Ford service specifications
- 3 Check the crankshaft and camshaft position sensor signals with a lab scope to confirm the reference pulse is present and clean
- 4 Verify the fuel injector itself is not shorted internally by measuring its coil resistance and comparing to the other injectors
- 5 Perform a wiggle test on the harness while watching live data for the cylinder identification signal to catch intermittent faults
- 6 Repair or replace the damaged section of harness, then clear the code and complete a drive cycle to confirm the repair
- 7 If all external circuits test good, substitute a known-good powertrain control module only after ruling out every wiring and sensor fault

What Ford techs check before replacing injectors

- A low cylinder identification signal is frequently caused by a failing crankshaft position sensor rather than the injector itself, so testing the sensor output on a scope saves unnecessary injector replacement.
- Ford injector harnesses routed near the exhaust manifold often develop internal wire breaks that only show up when the engine is hot, so a cold resistance check can pass while the fault is still present.
- Aftermarket remote start or alarm installations that tap into the injector control wiring are a common source of this code on older Ford trucks and SUVs.
- The code can set intermittently from a single loose connector pin and may not return for weeks, so a thorough wiggle test and pin drag test are more reliable than a simple code clear.
- A weak battery or charging system that drops voltage during cranking can cause the powertrain control module to misread the cylinder identification signal and set P1219 without any actual circuit fault.

Can I keep driving with P1219?

You can usually drive short distances to a repair shop, but avoid heavy acceleration, towing, or long highway trips until the fault is diagnosed because a failing cylinder identification signal can cause misfires that damage the catalytic converter. If the engine is running rough or stalling, park the vehicle and arrange a tow rather than risk a breakdown in traffic.



Tools that help

- OBD-II scan tool with live data and bidirectional control capability
- Digital multimeter with min/max recording
- Automotive lab scope for viewing crankshaft and camshaft sensor waveforms
- Ford-specific wiring diagram and connector pinout reference
- Back probe pins and a set of insulated hand tools

Reading P1219

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

Often seen with

P1218 Cylinder 6 Fuel Injector Circuit Short To B+ · **P1220** Cylinder 8 Fuel Injector Circuit Short To B+ · **P1220** Fuel Pump Control Signal Fault · **P1220** Fuel Quantity Actuator Y231 · **P1218** Injection Pump Calibration Circuit · **P1220** Throttle Position Sensor Circuit Fault · **P1218** CID High · **P1220** Series Throttle Control Fault · **P1218** Injection Pump Calibration Circuit · **P1220** Throttle Position (TP) Sensor 2 Circuit · **P0335** Crankshaft Position Sensor A Circuit Malfunction · **P0340** Camshaft Position Sensor A Circuit Malfunction (Bank 1) · **P0351** Ignition Coil A Primary/Secondary Circuit Malfunction

See it working

Watch the animated explainer [How Drive-by-Wire Works: Electronic Throttle Body](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/ford-p1219/>

