

FORD · POWERTRAIN

P1213

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1213 · Ford

Start Injector Circuit Malfunction

P1213 on a Ford vehicle means the powertrain control module (PCM) has detected an electrical fault in the start injector circuit, which is the extra fuel injector that Ford uses to enrich the mixture during cranking. The PCM monitors the circuit for expected voltage and current behavior and sets this code when the signal is out of range, typically an open circuit, short to ground, or short to power.

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

Symptoms you may notice

- Hard starting or a no-start condition, especially when the engine is cold
- Extended cranking before the engine fires, followed by a rough idle once it starts
- A check engine light (malfunction indicator lamp) with no other obvious driveability complaint
- Occasional backfire or lean misfire during the first few seconds after startup
- Often no symptoms besides the warning light if the fault is intermittent or only affects cold-start enrichment

Common causes, most likely first

- 1 Failed start injector solenoid winding (open or shorted internally)
- 2 Damaged or corroded wiring harness connector at the start injector
- 3 Chafed or broken wire in the start injector circuit between the PCM and the injector
- 4 Corroded or loose ground connection for the start injector circuit
- 5 Faulty PCM driver for the start injector circuit (rare but possible)
- 6 Contamination or clogging of the start injector nozzle causing abnormal current draw



How to diagnose and fix it

- 1 Scan all modules for stored codes and freeze-frame data to confirm P1213 is active and not a history code from a previous repair.
- 2 Visually inspect the start injector connector and the harness routing for corrosion, chafing, or loose pins, and repair as needed.
- 3 Measure the resistance of the start injector with a multimeter and compare it to the Ford specification for your engine; replace the injector if it is out of range.
- 4 Check for battery voltage at the injector connector with the key on and engine off, and check the ground side for continuity to the PCM; repair any open or shorted wire.
- 5 Perform a voltage drop test on the ground circuit and the power feed while cranking to catch high-resistance connections that a simple continuity test misses.
- 6 If the circuit and injector test good, substitute a known-good PCM or use a lab scope to verify the PCM driver signal before condemning the PCM.
- 7 Clear the code, run a cold-start relearn if applicable, and verify the repair by confirming the code does not return after several cold-start cycles.

Start injector circuit checks most techs skip

- A common misdiagnosis is replacing the start injector when the real fault is a chafed wire behind the intake manifold that only shorts when the engine moves on its mounts.
- The start injector only operates during cranking, so a fault can be completely invisible during a normal running inspection and only appear in a cold-start data log.
- Ford PCMs often set P1213 alongside misfire codes for the same cylinder bank, which can lead a technician to chase ignition components instead of the start injector circuit.
- A weak battery or poor engine ground can cause cranking voltage to drop low enough that the PCM misreads the start injector circuit and sets P1213 even though the injector is healthy.
- On some Ford engines the start injector shares a power feed with other injectors, so a short in that shared circuit can set P1213 together with injector circuit codes for other cylinders.

Can I keep driving with P1213?

You can usually drive the vehicle if it starts and runs normally once warm, but avoid long cranking sessions and cold-start driving until the fault is repaired. If the engine is hard to start or stalls after startup, have it diagnosed promptly to prevent starter and battery wear.



Tools that help

- OBD-II scan tool with Ford-specific software
- Digital multimeter
- Automotive lab scope
- Wiring diagram for the start injector circuit
- Basic hand tools for connector and injector access

Reading P1213

P Powertrain: engine, transmission and emissions.

1 Manufacturer-specific code (Ford): its meaning depends on the make.

2 Fuel and air metering (injector circuits).

13 The exact fault within that area.

Often seen with

P1211 Intake Valves For Cylinder Shut-Off Open Circuit · **P1211** ABS TCS Control Unit · **P1211** Mass Airflow Circuit Intermittent High · **P1211** Injector Control Pressure Sensor Above Below Desired · **P1211** Mass Air Flow Circuit Intermittent High · **P0201** Injector Circuit Malfunction - Cylinder 1 · **P0202** Injector Circuit Malfunction - Cylinder 2 · **P0203** Injector Circuit Malfunction - Cylinder 3 · **P0204** Injector Circuit Malfunction - Cylinder 4

See it working

Watch the animated explainer [How Hydraulic Brakes Work: Pedal to Caliper](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/ford-p1213/>

