

GENERIC · POWERTRAIN

P0213

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0213

Cold Start Injector 1

P0213 indicates that the engine control module (ECM) has detected a fault in the circuit for cold start injector 1, which is a separate fuel injector used only during cold starts on certain engines. The ECM monitors the injector's electrical circuit and sets this code when the current or voltage falls outside the expected range, meaning the injector may not be spraying fuel when the engine is cold.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering (injector circuits)

Symptoms you may notice

- Hard starting or extended cranking when the engine is cold, especially in low temperatures
- Rough idle or stalling immediately after a cold start
- Hesitation or stumble during the first few seconds of running from cold
- A strong fuel odor from the exhaust during cold starts if the injector is stuck open
- Often no symptoms besides the warning light, particularly in warmer weather when the cold start injector is not needed

Common causes, most likely first

- 1 Faulty cold start injector 1 with an open or shorted internal coil
- 2 Damaged or corroded wiring harness connector at the cold start injector
- 3 Broken, chafed, or shorted wire in the injector circuit between the ECM and the injector
- 4 Failed cold start injector timer switch or relay that controls power to the injector
- 5 Poor electrical connection at the ECM connector affecting the injector driver circuit
- 6 Contamination or clogging of the cold start injector nozzle, restricting fuel flow



How to diagnose and fix it

- 1 Inspect the cold start injector connector and wiring for corrosion, looseness, or physical damage, and clean or repair as needed
- 2 Measure the resistance of the cold start injector coil with a multimeter and compare to the manufacturer's specification to check for an open or shorted winding
- 3 Check for battery voltage and ground pulses at the injector connector during cranking when cold, using a test light or multimeter to verify the circuit is being commanded
- 4 Test the cold start injector timer switch or relay for proper operation according to the service information, replacing it if faulty
- 5 Remove and bench-test the cold start injector for spray pattern and flow, or have it professionally cleaned or replaced if clogged or defective
- 6 Inspect the ECM connector and pins for tightness and corrosion, and repair any terminal tension issues
- 7 Clear the code and perform a cold-start drive cycle to verify the repair, confirming the code does not return

Cold start injector circuit checks that save time

- Many technicians replace the cold start injector only to find the real problem is a failed timer switch or a corroded connector, so always test the control circuit before condemning the injector.
- A cold start injector that is stuck open can cause a rich-running condition and set fuel trim codes alongside P0213, which is often overlooked when diagnosing the original code.
- The cold start injector is not used on all engines, and some vehicles use a heater grid or intake air heater instead, so confirm the system is actually present before beginning diagnosis.
- In warm ambient temperatures the cold start injector may never activate, so the code can be stored with no driveability symptoms and may only appear after a cold soak in cooler weather.
- A weak battery or poor engine ground can cause a false P0213 by dropping voltage during cranking, so check battery condition and ground straps before replacing parts.

Can I keep driving with P0213?

You can usually drive the vehicle, but cold starting may be difficult or the engine may run rough until warm; avoid repeated long cranking attempts and have the fault diagnosed soon to prevent flooding or catalyst damage from excess fuel.

Tools that help

- OBD-II scan tool
- Digital multimeter
- Test light
- Factory service information for circuit specifications
- Basic hand tools for connector and injector access



Reading P0213

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 2** Fuel and air metering (injector circuits).
- 13** The exact fault within that area.

Often seen with

P0172 System Too Rich (Bank 1) · **P0175** System Too Rich (Bank 2) · **P0200** Injector Circuit Malfunction · **P0214** Cold Start Injector 2 · **P0300** Random/Multiple Cylinder Misfire Detected

See it working

Watch the animated explainer [How a Boxer Engine Works: Flat Engine Cutaway](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0213/>

