

GENERIC · POWERTRAIN

P0203

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0203

Injector Circuit Malfunction - Cylinder 3

P0203 means the powertrain control module (PCM) has detected an electrical fault in the fuel injector circuit for cylinder 3. The PCM monitors the injector driver circuit and sets this code when the current flow or voltage is outside the expected range during injector operation.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Fuel and air metering (injector circuits)

Symptoms you may notice

- Often no symptoms besides the warning light, especially if the injector still fires intermittently
- Rough idle or noticeable misfire, particularly when the engine is cold or under load
- Loss of power and reduced fuel economy as cylinder 3 stops contributing
- Shaking or vibration that worsens with acceleration
- A strong raw fuel smell from the exhaust if the injector is stuck open
- The engine may enter limp mode or flash the check engine light under heavy load

Common causes, most likely first

- Faulty fuel injector on cylinder 3 (open or shorted coil winding)
- Damaged or corroded electrical connector at the cylinder 3 injector
- Chafed, broken, or shorted wire in the injector harness near the cylinder 3 injector
- PCM driver circuit failure for the cylinder 3 injector (rare but possible)
- Poor ground connection shared by the injector circuit
- Aftermarket or incorrectly installed injector with wrong resistance
- Fuel contamination or debris clogging the injector and causing an electrical fault



How to diagnose and fix it

- 1 Inspect the cylinder 3 injector connector for corrosion, loose pins, or damaged locking tabs and clean or repair as needed
- 2 Check the injector harness for chafing, burns, or pinched wires along the route to the cylinder 3 injector
- 3 Measure the resistance of the cylinder 3 injector with a multimeter and compare it to the manufacturer's specification
- 4 Use a noid light or oscilloscope to confirm the PCM is pulsing the injector driver circuit
- 5 Swap the cylinder 3 injector with a known-good injector from another cylinder and see if the code moves
- 6 Check for a short to ground or short to voltage on the injector control wire with a multimeter
- 7 If all electrical checks pass, test the PCM driver output or replace the PCM as a last resort

What the code does not always mean

- A P0203 can be set by a poor connection at the injector connector even when the injector itself is good, so always inspect the plug before condemning the part.
Some vehicles will set P0203 intermittently due to a wire that only shorts when the engine moves under load, which means a static resistance test may pass.
- A clogged or dirty injector can cause an electrical fault code on some systems because the PCM sees abnormal current draw, so fuel quality matters.
- The code does not always mean the injector is dead; a shorted driver in the PCM can mimic a bad injector and swapping injectors will not move the fault.
Related misfire codes like P0303 may be stored alongside P0203, but P0203 points specifically to the electrical circuit rather than a general combustion misfire.

Can I keep driving with P0203?

You can usually drive the vehicle a short distance to a repair shop, but avoid heavy acceleration or towing because a misfiring cylinder can overheat the catalytic converter. If the check engine light is flashing, stop driving and have the vehicle towed.

Tools that help

- OBD-II scan tool
- Digital multimeter
- Noid light or oscilloscope
- Wire repair kit with crimp connectors and heat shrink
- Injector removal tools (if replacement is needed)



Reading P0203

- 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).
- 03** The exact fault within that area.

Often seen with

P0201 Injector Circuit Malfunction - Cylinder 1 · **P0202** Injector Circuit Malfunction - Cylinder 2 · **P0204** Injector Circuit Malfunction - Cylinder 4 · **P0303** Cylinder 3 Misfire Detected · **P2146** Fuel Injector Group 'A' Supply Voltage Circuit/Open

See it working

Watch the animated explainer [How a Car Clutch Works: Diaphragm Clutch Cutaway](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0203/>

