

GENERIC · POWERTRAIN

P2056

OBD-II TROUBLE CODE

P2056

Reductant Injector Circuit/Open (Bank 2 Unit 2)

P2056 indicates that the powertrain control module has detected an open circuit or excessive resistance in the reductant injector circuit for bank 2 unit 2 of the selective catalytic reduction system. This injector is responsible for spraying diesel exhaust fluid into the exhaust stream to reduce nitrogen oxide emissions, and an open circuit means the injector is not receiving the electrical command to operate.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering and auxiliary emission controls

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Reduced engine power or limp mode triggered by the emissions system
- A message on the dashboard indicating low diesel exhaust fluid or a emissions system fault
- Increased diesel exhaust fluid consumption if the injector is stuck open or leaking
- Rough running or misfire in extreme cases due to excessive reductant injection
- Failed emissions test due to incomplete SCR system readiness

Common causes, most likely first

- 1 Damaged or disconnected electrical connector at the reductant injector
- 2 Open or shorted wiring in the reductant injector circuit, including chafed or broken wires
- 3 Failed reductant injector solenoid with an open internal coil
- 4 Corroded or loose pins in the injector or PCM connector
- 5 Blown fuse or faulty relay supplying power to the reductant injector circuit
- 6 Faulty powertrain control module driver for the injector circuit, though rare



How to diagnose and fix it

- 1 Inspect the reductant injector connector for corrosion, damage, or loose pins and clean or repair as needed
- 2 Check the wiring harness for the reductant injector circuit for continuity and short to ground or power using a multimeter
- 3 Test the reductant injector resistance with a multimeter and compare to the manufacturer's specification
- 4 Verify power and ground signals at the injector connector with the key on and engine running
- 5 Check the fuse and relay that supply power to the reductant injector circuit and replace if faulty
- 6 If the circuit and injector test good, diagnose the PCM driver circuit or reprogram/replace the PCM as last resort
- 7 Clear the diagnostic trouble codes and perform a road test to verify the repair and ensure the monitor runs

Reductant injector circuit checks that save time

- A common oversight is assuming the injector itself is faulty when the actual problem is a corroded connector or chafed wire near the exhaust, where heat and vibration take a toll.
The code can set intermittently due to a loose ground connection for the SCR system, so always check ground points before condemning the injector.
- Some vehicles require a relearn or adaptation reset after replacing the reductant injector, and skipping this step can cause the code to return immediately.
- P2056 specifically refers to bank 2 unit 2, so on vehicles with multiple reductant injectors, misdiagnosing the wrong injector is a common trap; always confirm the bank and unit location in the service information.
A failed reductant injector can also cause P20B9 or P20BA codes, so scanning all modules for related codes helps confirm the root cause.

Can I keep driving with P2056?

You can usually drive the vehicle with P2056 set, but the SCR system will not function correctly, leading to increased emissions and possible limp mode if the fault worsens. Avoid long trips and heavy loads until the repair is completed, and do not ignore the code as it can lead to more extensive emissions system damage.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the specific vehicle
- Socket set and trim removal tools
- Contact cleaner and dielectric grease



Reading P2056

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

Often seen with

P2055 Reductant Injector Circuit High (Bank 1 Unit 2) · **P2057** Reductant Injector Circuit Low (Bank 2 Unit 2) · **P207F** Reductant Quality Performance · **P20B9** Reductant Heater A Control Circuit/Open · **P20BA** Reductant Heater A Control Performance

See it working

Watch the animated explainer [Master the Four-Stroke Engine Cycle](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2056/>

