

GENERIC · POWERTRAIN

P2055

OBD-II TROUBLE CODE

P2055

Reductant Injector Circuit High (Bank 1 Unit 2)

P2055 indicates that the powertrain control module has detected an abnormally high voltage on the control circuit for the reductant injector for bank 1 unit 2, which is the second injector in the selective catalytic reduction system on that bank. The computer expects the circuit to pull the voltage low when the injector is commanded on, but instead it sees voltage staying near battery level, indicating an open circuit, a short to power, or a failed injector coil.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Fuel and air metering and auxiliary emission controls

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms.
- A message on the dashboard indicating a problem with the emissions system or diesel exhaust fluid.
- Reduced engine power or limp mode if the fault triggers protective strategies.
- Increased diesel exhaust fluid consumption or a warning that the fluid level is incorrect.
- Possible rough running or misfire if the reductant injector is stuck open or leaking.
- Failure to complete an emissions readiness monitor, which can prevent passing an inspection.

Common causes, most likely first

- 1 Open circuit in the reductant injector control wire, such as a broken wire or loose connector terminal.
- 2 Short to voltage on the control circuit, often from chafed wiring harness insulation.
- 3 Failed reductant injector solenoid with an open coil or high internal resistance.
- 4 Corroded or damaged electrical connector at the injector or at the powertrain control module.
- 5 Faulty powertrain control module driver for the injector circuit, though this is less common.
- 6 Aftermarket or damaged wiring repairs that introduce excessive resistance or a short.



How to diagnose and fix it

- 1 Perform a visual inspection of the reductant injector harness and connectors for damage, corrosion, or loose pins.
- 2 Use a scan tool to command the reductant injector on and off while watching the circuit voltage to confirm the fault.
- 3 Measure the resistance of the reductant injector solenoid with a multimeter and compare it to the manufacturer's specification.
- 4 Check for continuity and short to voltage on the control wire between the injector and the powertrain control module.
- 5 If the wiring and injector test good, substitute a known-good injector or perform a wiggle test on the harness while monitoring the circuit.
- 6 Repair or replace any damaged wiring, connectors, or the reductant injector as needed, then clear the code and verify the repair.

What the voltage reading actually tells you

- A high voltage reading on the control circuit often means the injector coil is open, so the driver sees no current flow and the voltage stays pulled up.
- A short to voltage on the control wire can mimic a failed injector, so always check for chafed wiring before condemning the injector.
- Some vehicles set P2055 when the reductant injector connector is simply unplugged, so check for a disconnected plug after any recent service.
- The code can be set by a poor ground connection at the injector mounting point, which raises the circuit voltage under load.
- Do not replace the powertrain control module until you have ruled out all wiring and injector faults, because module failure is rare.

Can I keep driving with P2055?

You can usually continue driving with P2055, but the vehicle may enter limp mode or fail an emissions test, so avoid long trips and schedule a diagnosis soon. Do not ignore a flashing check engine light or any drivability symptoms, and avoid towing heavy loads until the fault is repaired.

Tools that help

- OBD-II scan tool with bidirectional control
- Digital multimeter
- Wiring diagram for the reductant injector circuit
- Test light or jumper wires
- Socket set and trim removal tools



Reading P2055

- 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.
- 55** The exact fault within that area.

Often seen with

P2054 Reductant Injector Circuit Low (Bank 1 Unit 2) · **P2056** Reductant Injector Circuit/Open (Bank 2 Unit 2) · **P2057** Reductant Injector Circuit Low (Bank 2 Unit 2) · **P20B9** Reductant Heater A Control Circuit/Open · **P20BA** Reductant Heater A Control Performance

See it working

Watch the animated explainer [Car Relay Test Bench: Test 4-Pin and 5-Pin Relays](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2055/>

