

GENERIC · POWERTRAIN

P208E

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P208E

Reductant Injection Valve Stuck Closed (Bank 1 Unit 1)

P208E indicates that the powertrain control module has commanded the reductant injection valve for bank 1 unit 1 to open, but the valve has remained stuck closed, preventing diesel exhaust fluid from being sprayed into the exhaust stream. The computer detects this by monitoring the valve's electrical circuit and the resulting exhaust gas sensor feedback, and it sets the code when the expected change in emissions or pressure does not occur.

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 control system
- A persistent or intermittent exhaust fluid warning message on the dashboard
- Increased diesel exhaust fluid consumption or a failure to consume fluid at all
- Rough running or hesitation under load if the system enters a protective strategy
- A sulfur or ammonia-like odor from the exhaust in some cases

Common causes, most likely first

- 1 Reductant injection valve mechanically stuck closed due to crystallization or debris
- 2 Failed reductant injection valve solenoid or internal electrical fault
- 3 Wiring harness damage, such as an open circuit or corroded connector, between the control module and the valve
- 4 Blocked or restricted reductant supply line or filter preventing fluid from reaching the valve
- 5 Low or contaminated diesel exhaust fluid in the tank
- 6 Faulty reductant pressure sensor or pump not delivering adequate pressure to open the valve
- 7 Powertrain control module software issue or internal driver failure (less common)



How to diagnose and fix it

- 1 Verify diesel exhaust fluid level and condition, and top off or replace fluid if contaminated
- 2 Inspect the reductant injection valve connector and wiring for corrosion, damage, or loose pins
- 3 Perform a commanded activation test of the reductant injection valve using a scan tool to listen for an audible click
- 4 Measure resistance across the valve solenoid and compare to manufacturer specifications
- 5 Check reductant supply line for blockages or kinks and verify pump pressure with a gauge
- 6 Remove and inspect the reductant injection valve for crystallization or debris, cleaning or replacing as needed
- 7 Clear the code and perform a road test to confirm the repair and ensure the monitor runs to completion

Crystallization and wiring faults fool many techs

- Crystallized diesel exhaust fluid inside the injector nozzle is a leading cause of a stuck-closed valve, often after the vehicle sits unused for extended periods.
- A valve that tests electrically good but does not spray can be caused by a blocked supply line or a weak reductant pump, so always verify pressure before condemning the valve.
- The code can be set by a simple open circuit in the valve wiring, which is frequently overlooked when technicians focus on the valve itself.
- Some vehicles require a software update to the powertrain control module to correct overly sensitive detection logic for this fault.
- After repairs, the reductant injection system may need a scan-tool reset or adaptation procedure to relearn the valve characteristics and prevent a repeat code.

Can I keep driving with P208E?

You can usually continue driving to a repair shop, but avoid heavy loads and long distances because the vehicle may enter limp mode or fail an emissions test. Do not ignore the warning light, as prolonged driving with a stuck-closed valve can lead to more extensive emissions system damage.

Tools that help

- OBD-II scan tool with bidirectional control and live data
- Digital multimeter for circuit and resistance testing
- Fuel pressure gauge or reductant pressure test kit
- Hand tools for removing and inspecting the reductant injection valve
- Inspection mirror and flashlight for checking connectors and lines



Reading P208E

- 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.
- 8E** The exact fault within that area.

Often seen with

P2047 Reductant Injector Circuit/Open (Bank 1 Unit 1) · **P205C** Reductant Tank Temperature Sensor A Circuit Low · **P208F** Reductant Injection Valve Stuck Closed (Bank 2 Unit 1) · **P20B9** Reductant Heater A Control Circuit/Open · **P20BE** Reductant Heater B Control Circuit Performance

See it working

Watch the animated explainer [Four-Stroke Engine Cutaway: Intake to Exhaust](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p208e/>

