

GENERIC · POWERTRAIN

P20A6

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P20A6

Reductant Injection Air Pressure Control Valve Circuit/Open

P20A6 indicates that the powertrain control module has detected an open circuit or electrical fault in the reductant injection air pressure control valve circuit, which is part of the diesel exhaust fluid (DEF) injection system on selective catalytic reduction (SCR) equipped vehicles. The computer monitors the valve's electrical circuit and sets this code when the expected voltage or current is outside the normal range, typically indicating a broken wire, poor connection, or failed valve solenoid.

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 in some vehicles
- Increased diesel exhaust fluid consumption
- Rough running or hesitation during regeneration cycles
- A warning message on the dashboard indicating an emissions system fault

Common causes, most likely first

- 1 Open or shorted wiring in the reductant injection air pressure control valve circuit
- 2 Corroded or loose electrical connector at the valve
- 3 Failed reductant injection air pressure control valve solenoid
- 4 Blown fuse or relay supplying power to the valve circuit
- 5 Faulty powertrain control module (rare)
- 6 Damage to the wiring harness from heat, vibration, or debris



How to diagnose and fix it

- 1 Perform a visual inspection of the valve, connector, and wiring for obvious damage or corrosion
- 2 Check the fuse and relay related to the reductant injection air pressure control valve circuit
- 3 Use a scan tool to command the valve on and off and listen for activation
- 4 Measure resistance across the valve solenoid and compare to manufacturer specifications
- 5 Check for voltage and ground signals at the valve connector with the key on and engine off
- 6 Perform a voltage drop test on the power and ground circuits to identify high resistance
- 7 If all electrical checks pass, suspect the powertrain control module and perform further diagnostics

Common Misdiagnosis Traps for P20A6

- A loose or corroded connector is often the root cause, so always inspect and clean the terminals before replacing the valve.
- The code can be set by a faulty fuse or relay that is shared with other circuits, so check those first.
- Some vehicles require a relearn or adaptation reset after repairing the circuit, so consult the service manual.
- The reductant injection air pressure control valve is sometimes confused with the reductant injector, but they are separate components.
- In rare cases, a software glitch in the powertrain control module can trigger this code, so check for technical service bulletins.

Can I keep driving with P20A6?

You can usually continue driving with this code, but the vehicle may enter limp mode or fail an emissions test. Avoid long trips and schedule repairs promptly to prevent further damage to the SCR system.

Tools that help

- OBD-II scan tool with bidirectional control
- Digital multimeter
- Test light
- Wire repair kit
- Service manual for wiring diagrams

Reading P20A6

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| 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. |
| A6 | The exact fault within that area. |



Often seen with

P20A5 Reductant Purge Control Valve A Stuck Closed · **P20A7** Reductant Injection Air Pressure Control Valve Performance · **P20A8** Reductant Injection Air Pressure Control Valve Circuit Low · **P20B9** Reductant Heater A Control Circuit/Open · **P20BA** Reductant Heater A Control 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/p20a6/>

