

GENERIC · POWERTRAIN

P201F

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P201F

Reductant Pump A Stuck On

P201F means the engine control module has commanded the diesel exhaust fluid (DEF) reductant pump to stop, but the pump circuit remains energized or the pump continues to run. The computer detects this by comparing the pump command signal to the actual pump feedback, often through a pressure sensor or current monitor, and flags the code when the pump stays on longer than expected.

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
- A persistent DEF warning or countdown timer on the dashboard if the fault is severe
- Exhaust fluid consumption that seems higher than normal because the pump keeps running
- Possible rough running or reduced engine power if the system enters limp mode
- A humming or whining noise from the DEF pump area after the engine is shut off

Common causes, most likely first

- 1 A reductant pump relay that has welded its contacts closed, keeping power to the pump
- 2 A short to voltage in the pump control wiring between the relay and the pump
- 3 A failed reductant pump motor that runs continuously when powered
- 4 A faulty pump driver inside the dosing control unit or engine control module
- 5 Corroded or damaged connectors at the pump or relay causing feedback signal errors
- 6 A stuck pressure relief valve that prevents the pump from building normal pressure and shutting off



How to diagnose and fix it

- 1 Verify the code with a scan tool and check for any related reductant system codes before replacing parts
- 2 Inspect the reductant pump relay and swap it with an identical known-good relay to see if the fault changes
- 3 Measure voltage at the pump connector with the key off to confirm whether power is present when it should not be
- 4 Check the pump control wiring for shorts to voltage or chafed insulation along the harness
- 5 Command the pump on and off with a bidirectional scan tool and observe pump feedback and pressure readings
- 6 If the pump runs continuously with the relay removed, test the pump motor for internal shorting
- 7 Replace the faulty pump, relay, or control module only after confirming the circuit fault with a multimeter

Before you replace the reductant pump

- A welded reductant pump relay is one of the most common causes of this code and is often overlooked because the relay looks fine from the outside.
The code can set intermittently if the pump only sticks on during cold starts or after a regeneration cycle, so a road test with live data may be needed.
- A shorted pump motor can back-feed voltage into the control circuit and damage the driver, so always check the pump before installing a new module.
- Some vehicles use a pulse-width-modulated signal to control the pump, and a failed pump driver can mimic a stuck pump by holding the circuit on.
This code does not always mean the pump itself is bad; wiring harness chafing near the DEF tank is a frequent hidden cause.

Can I keep driving with P201F?

You can usually drive with this code for a short time, but avoid long trips and do not ignore a DEF warning countdown that limits speed or prevents restart. If the engine enters limp mode or the countdown reaches zero, stop driving and have the system repaired.

Tools that help

- OBD-II scan tool with bidirectional control and live data
- Digital multimeter
- Relay puller or small screwdriver
- Wiring diagram for the reductant pump circuit
- Basic socket set



Reading P201F

- 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.
- 1F** The exact fault within that area.

Often seen with

P201E Intake Manifold Runner Control Actuator Internal Performance · **P2020** Intake Manifold Runner Position Sensor/Switch Circuit Range/ · **P2021** Intake Manifold Runner Position Sensor/Switch Circuit Low (B · **P20B9** Reductant Heater A Control Circuit/Open · **P20BA** Reductant Heater A Control Performance

See it working

Watch the animated explainer [How Misfire Detection Works: Crankshaft Speed](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p201f/>

