

CHRYSLER · POWERTRAIN

P1243

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1243 · Chrysler

Open Or Shorted Condition Detected In The Turbocharger Surge Valve Solenoid Control

P1243 on a Chrysler vehicle means the powertrain control module (PCM) has detected an open circuit or a short to ground or power in the wiring that controls the turbocharger surge valve solenoid. The PCM commands the solenoid to open and close the surge valve, and it monitors the control circuit for expected voltage or current; when the feedback falls outside the expected range, it stores this code and may disable boost control.

SYSTEM

Powertrain

CODE TYPE

Chrysler specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering (injector circuits)

Symptoms you may notice

- Check engine light or service engine soon light illuminated on the dashboard
- Often no symptoms besides the warning light, especially if the surge valve fails in a default position
- Reduced engine power or limp mode with limited turbo boost
- Rough idle, stalling, or poor throttle response after lifting off the accelerator
- Audible turbo flutter or surge noise during deceleration or gear changes
- Poor fuel economy or increased turbo lag during acceleration

Common causes, most likely first

- 1 Damaged, chafed, or disconnected wiring harness at the surge valve solenoid connector
- 2 Corroded or loose electrical terminals inside the surge valve solenoid connector
- 3 Failed turbocharger surge valve solenoid (open coil or shorted internally)
- 4 Blown fuse or faulty relay supplying power to the surge valve solenoid circuit
- 5 PCM driver circuit failure or internal PCM fault (less common)
- 6 Aftermarket electronic modifications or poor previous repairs tapping into the circuit



How to diagnose and fix it

- 1 Inspect the surge valve solenoid connector and wiring for obvious damage, corrosion, or loose pins; repair as needed
- 2 Check the fuse and relay that supply power to the surge valve solenoid circuit and replace any failed component
- 3 Disconnect the solenoid and measure resistance across its terminals; compare to the manufacturer's specification and replace the solenoid if out of range
- 4 With the key on and engine off, back-probe the control circuit at the PCM to check for an open or short to ground or power; repair the harness if a fault is found
- 5 Command the surge valve solenoid on and off with a scan tool and listen for the solenoid to click; if it does not actuate, recheck the circuit and solenoid
- 6 If all external circuits and the solenoid test good, suspect the PCM; perform a pin-fit and voltage-drop test on the PCM connector before replacing the PCM
- 7 Clear the code and perform a road test with several deceleration events to confirm the repair and ensure the code does not return

Surge valve solenoid circuit checks that save time

- A common misdiagnosis is replacing the turbocharger itself when the actual fault is a chafed wire near the surge valve solenoid, so always inspect the harness routing first.
- The surge valve solenoid is often confused with the wastegate solenoid; on Chrysler turbo engines they are separate components, and testing the wrong one leads to unnecessary parts replacement.
- Intermittent P1243 codes frequently appear after engine work where the surge valve connector was not fully seated, so check for a partially latched connector before condemning the solenoid.
- A shorted surge valve solenoid can draw excessive current and damage the PCM driver, so always measure solenoid resistance before installing a replacement PCM.
- Some Chrysler vehicles set P1243 as a pending code without illuminating the light; a scan tool that reads pending codes is needed to catch it early.

Can I keep driving with P1243?

You can usually drive the vehicle to a repair shop, but avoid heavy acceleration and sustained high boost because the surge valve may not function correctly. If the engine enters limp mode or you hear loud turbo flutter, keep speeds low and schedule service promptly.



Tools that help

- OBD-II scan tool with bidirectional control and live data
- Digital multimeter with back-probe pins
- Wire repair kit with crimpers and heat-shrink tubing
- Test light or fused jumper wire
- Factory service information for wiring diagrams and solenoid resistance specifications

Reading P1243

- P** Powertrain: engine, transmission and emissions.
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- 1** Manufacturer-specific code (Chrysler): its meaning depends on the make.
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- 2** Fuel and air metering (injector circuits).
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- 43** The exact fault within that area.

Often seen with

P1242 Cylinder 6 Injector Circuit Open Circuit · **P1244** Cylinder 8 Injector Circuit Open Circuit · **P1244** Wastegate Control Solenoid Valve Malfunction Low Input · **P1242** Throttle Vent Control Motor Circuit 2 Malfunction · **P1244** Closed Throttle Position Insufficient · **P1242** Sensor Power Supply High Input · **P1242** Throttle Vent Control Motor Circuit 2 Malfunction · **P1244** Closed Throttle Position Insufficient · **P1244** Alternator Load Input Failed High · **P0033** Turbo Charger Bypass Valve Control Circuit · **P0234** Engine Overboost Condition · **P0299** Turbo/Supercharger Underboost

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/chrysler-p1243/>

