

CHRYSLER · POWERTRAIN

P1407

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1407 · Chrysler

EGR Air Intrusion In Exhaust Supply To EGR Valve

P1407 on Chrysler vehicles means the powertrain control module has detected an unexpected air intrusion in the exhaust supply path to the exhaust gas recirculation (EGR) valve, typically from a leaking or disconnected exhaust supply tube. The computer infers this condition when the EGR system's pressure or flow readings do not match the expected values during a self-test, indicating that outside air is entering the exhaust gas stream before it reaches the EGR valve.

SYSTEM

Powertrain

CODE TYPE

Chrysler specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Auxiliary emission controls

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Rough idle or stumbling when the engine is cold or during the first few minutes of operation
- A slight hissing or ticking noise from the exhaust supply tube area under the hood
- Poor fuel economy or reduced engine performance in some cases
- Intermittent EGR-related driveability issues, such as surging or hesitation during light acceleration

Common causes, most likely first

- 1 Cracked or disconnected exhaust supply tube between the exhaust manifold and the EGR valve
- 2 Failed gasket at the EGR valve inlet or exhaust manifold connection, allowing air to be drawn in
- 3 Loose or missing mounting bolts on the EGR supply tube flanges
- 4 Corroded or damaged EGR valve mounting surface causing an imperfect seal
- 5 Leaking EGR valve diaphragm or internal seal that permits air intrusion
- 6 Restricted or clogged EGR passage causing abnormal pressure readings that mimic air intrusion

How to diagnose and fix it

- 1 Inspect the entire exhaust supply tube and all connections for cracks, looseness, or missing hardware
- 2 Check the EGR valve gasket and mounting surface for signs of leakage or deterioration
- 3 Perform a visual inspection of the EGR valve diaphragm and internal components for damage
- 4 Use a scan tool to monitor EGR pressure and flow data while manipulating the supply tube to confirm the leak
- 5 Replace any faulty gaskets, seals, or the exhaust supply tube as needed
- 6 Clear the diagnostic trouble code and verify that it does not return after a test drive



Common misdiagnosis traps for P1407

- A loose oil filler cap or dipstick can cause a similar code on some Chrysler engines by allowing unmetered air into the crankcase, which affects EGR calculations.
- Technicians often replace the EGR valve unnecessarily when the actual problem is a simple cracked exhaust supply tube or a missing bolt.
- Exhaust leaks upstream of the EGR valve can draw in air and set P1407 without any obvious driveability symptoms.
- The code can be triggered by a faulty EGR valve position sensor or a wiring issue, so always check electrical connectors before replacing parts.
- After repairs, the EGR system may require a relearn or drive cycle to clear the code permanently, so do not assume the fix failed if the light stays on briefly.

Can I keep driving with P1407?

You can usually continue driving with P1407, but avoid prolonged idling and heavy acceleration until the leak is repaired, as unmetered air can cause lean conditions and increased emissions. Have the vehicle inspected soon to prevent potential damage to the EGR system or catalytic converter.

Tools that help

- OBD-II scan tool with live data capability
- Vacuum pump and gauge
- Basic hand tools (wrenches, sockets, screwdrivers)
- Flashlight or inspection mirror
- Propane or smoke machine for leak detection

Reading P1407

P	Powertrain: engine, transmission and emissions.
1	Manufacturer-specific code (Chrysler): its meaning depends on the make.
4	Auxiliary emission controls.
07	The exact fault within that area.

Often seen with

P0401 EGR Flow Insufficient Detected · **P0403** EGR Circuit Malfunction · **P0404** EGR Circuit Range/Performance · **P0405** EGR Sensor A Circuit Low · **P0406** EGR Sensor A Circuit High



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-p1407/>

