

CHRYSLER · POWERTRAIN

P1415

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1415 · Chrysler

Secondary Air Injection (AIR) System

P1415 on Chrysler vehicles indicates that the powertrain control module has detected a fault within the secondary air injection system, which pumps fresh air into the exhaust stream during cold starts to reduce hydrocarbon emissions. The computer monitors the system's electrical circuits and often the resulting oxygen sensor response, and it sets this code when the expected air flow or circuit behavior is not achieved.

SYSTEM

Powertrain

CODE TYPE

Chrysler specific

SEVERITY

Low

FIX DIFFICULTY

Intermediate

AREA

Auxiliary emission controls

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- A slight rough idle or stumble during the first minute after a cold start
- Increased exhaust smell during warm-up as the catalytic converter takes longer to light off
- In some cases, a whistling or hissing noise from the engine bay during cold start due to a leaking air pump or hose
- Failed emissions test due to incomplete or failed oxygen sensor monitor
- Occasional stalling immediately after startup in severe cases

Common causes, most likely first

- 1 Failed secondary air injection pump, often due to water intrusion or worn brushes
- 2 Broken, cracked, or disconnected air injection hoses or tubing
- 3 Faulty air injection control valve or check valve stuck open or closed
- 4 Blown fuse or corroded relay in the air pump circuit
- 5 Damaged wiring or connector at the air pump or control valve
- 6 Failed oxygen sensor giving a false lean or rich reading during the air injection test
- 7 Carbon buildup or blockage in the air injection passages inside the cylinder head



How to diagnose and fix it

- 1 Check all fuses and relays related to the secondary air injection system, replacing any that are blown or suspect
- 2 Inspect the air pump, hoses, and control valve for physical damage, cracks, or disconnections, and repair or replace as needed
- 3 Command the air pump on with a scan tool and listen for operation; if it does not run, check for power and ground at the pump connector
- 4 Test the air injection control valve for proper vacuum operation and flow, and verify the check valve holds pressure
- 5 Use a scan tool to monitor oxygen sensor response during the air injection test to confirm whether the issue is mechanical or electrical
- 6 If the pump runs but no air reaches the exhaust, check for blocked passages in the cylinder head and clean or replace as necessary
- 7 Clear the code and perform a drive cycle to verify the repair, ensuring the monitor completes without resetting the code

Common Misdiagnosis Traps for P1415

- A failed air pump is often replaced unnecessarily when the real problem is a stuck-open check valve that allows exhaust condensation to reach the pump and seize it, so always replace the check valve with the pump.
- The code can be set by a lazy oxygen sensor that responds too slowly during the air injection test, even though the air system itself is functioning perfectly.
- On many Chrysler models, the air pump only runs for a few seconds after a cold start, so a pump that seems to work during a static test may still fail under actual cold-start conditions.
- Corroded wiring at the air pump connector is a frequent hidden cause, especially in regions with road salt, and is often overlooked when only the pump is replaced.
- A leaking vacuum hose to the air control valve can cause the system to divert air incorrectly, setting P1415 without any obvious pump failure.

Can I keep driving with P1415?

The vehicle is safe to drive with P1415 because the secondary air injection system only operates during cold starts and does not affect engine performance or safety. However, you should avoid prolonged idling and schedule a repair soon to ensure the vehicle passes emissions testing and to prevent potential catalytic converter damage from unburned fuel.



Tools that help

- OBD-II scan tool with bidirectional control capability
- Digital multimeter
- Hand vacuum pump
- Basic socket and wrench set
- Inspection mirror and flashlight

Reading P1415

- 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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- 4** Auxiliary emission controls.
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- 15** The exact fault within that area.

Often seen with

P0410 Secondary Air Injection System Malfunction · **P0411** Secondary Air Injection System Incorrect Flow · **P0412** Secondary Air Injection System Switching Valve 'A' Circuit · **P0413** Secondary Air Injection System Switching Valve 'A' Circuit O · **P0414** Secondary Air Injection System Switching Valve 'A' Circuit S

See it working

Watch the animated explainer [How Drive-by-Wire Works: Electronic Throttle Body](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/chrysler-p1415/>

