

BMW · POWERTRAIN

P1432

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1432 · BMW

Secondary Air Injection System Incorrect Flow Detected

P1432 on BMW vehicles means the engine computer (DME) commanded the secondary air injection (SAI) pump on during a cold start and did not see the expected change in the oxygen sensor signal, so it flagged incorrect flow. The emissions air pump is not delivering enough air into the exhaust manifold when the engine is cold, and the DME detected this by monitoring the pre-catalyst oxygen sensor response.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	BMW specific	Low	Intermediate	Auxiliary emission controls

Symptoms you may notice

- Illumination of the check engine light, often with no other symptoms besides the warning light
- A brief, loud whirring or vacuum-cleaner-like noise from the engine bay on cold starts that may be absent or weaker than normal
- Rough idle or slight hesitation during the first minute after a cold start in some cases
- A pending or stored P1432 code that returns after clearing, especially on cold mornings
- Slightly elevated emissions during the cold-start warm-up phase, which may be noticed at inspection
- In rare cases, a whistling or hissing sound from a cracked or disconnected air injection hose

Common causes, most likely first

- 1 Failed secondary air injection pump (electric pump seized, worn brushes, or water intrusion)
- 2 Blown fuse or corroded relay for the secondary air pump circuit
- 3 Cracked, disconnected, or melted secondary air injection hose or check valve
- 4 Faulty secondary air injection check valve stuck open or closed, allowing exhaust backflow or blocking flow
- 5 Clogged or carbon-fouled air injection passages inside the exhaust manifold or cylinder head
- 6 Failed or sticking secondary air injection vacuum control solenoid (on vacuum-operated systems)
- 7 Aging or contaminated pre-catalyst oxygen sensor giving a lazy or incorrect signal during the cold-start test



How to diagnose and fix it

- 1 Check the secondary air pump fuse and relay first, and confirm the pump runs for about 20-30 seconds on a cold start
- 2 Inspect all secondary air injection hoses and the check valve for cracks, splits, melting, or loose connections
- 3 Command the secondary air pump on with a scan tool and listen for operation, then measure voltage and current at the pump connector
- 4 Remove and inspect the check valve for carbon buildup or a stuck diaphragm, and verify it holds pressure in one direction only
- 5 Check the pre-catalyst oxygen sensor response during the cold-start air injection phase with live data to confirm the DME is seeing the expected lean shift
- 6 Test the vacuum control solenoid and its vacuum lines if the system is vacuum-operated, confirming vacuum reaches the check valve when commanded
- 7 If flow is still low after electrical and hose checks, inspect the air injection passages in the exhaust manifold or cylinder head for carbon blockage

What the cold-start air test really checks

- The DME does not measure airflow directly; it infers secondary air flow by watching the pre-catalyst oxygen sensor go lean when the pump runs, so a lazy oxygen sensor can set P1432 even when the pump and hoses are fine.
- A cracked or disconnected air injection hose often causes no driveability complaint at all, and the only clue is the missing cold-start pump noise or a faint hiss under the hood.
- On many BMW engines the secondary air injection passages in the cylinder head carbon up over time, restricting flow even with a healthy pump, valve, and hoses.
- A check valve stuck open allows exhaust gas to flow backward into the pump and hoses, which can melt plastic lines and destroy the pump, so always replace the valve when the pump has failed.
- P1432 can be stored alongside mixture or oxygen sensor codes that are actually consequences of the air injection fault, so diagnose the SAI system before condemning the oxygen sensors.

Can I keep driving with P1432?

It is generally safe to keep driving with P1432 because the fault mainly affects cold-start emissions and does not disable the engine, but avoid ignoring it for months since a failed check valve can let exhaust backflow damage the pump and hoses. Have the system inspected before your next emissions test, and avoid repeated short cold-start cycles that keep the pump cycling without diagnosis.



Tools that help

- OBD-II scan tool with live data and bidirectional control
- Digital multimeter
- Hand vacuum pump
- Basic socket and wrench set
- Flashlight or inspection mirror

Reading P1432

P Powertrain: engine, transmission and emissions.

1 Manufacturer-specific code (BMW): its meaning depends on the make.

4 Auxiliary emission controls.

32 The exact fault within that area.

Often seen with

P0130 O2 Sensor Circuit Malfunction (Bank 1 Sensor 1) · **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 a Coolant Temperature Sensor Works](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/bmw-p1432/>

