

GENERIC · POWERTRAIN

P2430

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2430

Secondary Air Injection System Air Flow/Pressure Sensor Circuit (Bank 1)

P2430 indicates that the powertrain control module has detected a problem with the electrical circuit or signal from the secondary air injection system's air flow or pressure sensor on bank 1. The computer monitors this sensor to verify that the air pump is delivering the correct amount of air into the exhaust stream during cold starts, and it sets this code when the sensor signal is out of expected range or the circuit is faulty.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

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 hesitation during the first few minutes after a cold start
- Increased tailpipe emissions during warm-up, which may be noticed during an emissions test
- In some cases, a faint whistling or hissing noise from the secondary air injection system
- Occasionally, a stored pending code or freeze frame data showing the fault occurred during cold start

Common causes, most likely first

- 1 Faulty secondary air injection air flow or pressure sensor
- 2 Damaged, disconnected, or corroded wiring or connector at the sensor
- 3 Failed secondary air injection pump or clogged air passages
- 4 Leaking or disconnected vacuum hose or air hose in the secondary air system
- 5 Failed secondary air injection check valve allowing exhaust backflow
- 6 Corroded or damaged powertrain control module connector pins (rare)



How to diagnose and fix it

- 1 Connect a scan tool and record freeze frame data to confirm the code set during a cold start and check for related pending codes
- 2 Visually inspect the secondary air injection sensor, its connector, and the wiring harness for damage, corrosion, or loose connections
- 3 Test the sensor's reference voltage and ground circuits with a digital multimeter to rule out wiring faults
- 4 Check the secondary air injection pump operation and inspect all air hoses and vacuum lines for leaks or disconnections
- 5 Test the secondary air injection check valve for proper one-way flow and replace if stuck or leaking
- 6 If the sensor signal is erratic or out of specification, replace the air flow/pressure sensor and clear the code
- 7 After repairs, perform a cold-start drive cycle to verify the code does not return and monitor readiness status

What the secondary air sensor really monitors

- A P2430 can be set by a perfectly good sensor when the secondary air pump is weak or the air passages are carbon-clogged, so always verify actual air flow before replacing the sensor.
- The sensor often shares a reference voltage or ground with other engine sensors, so a fault elsewhere on that circuit can trigger this code without any problem in the secondary air system itself.
- Many technicians overlook a leaking or stuck-open secondary air check valve, which allows hot exhaust gas to reach the sensor and damage it, leading to repeat failures if the valve is not replaced.
- On some vehicles, the secondary air injection system only runs for the first few minutes after a cold start, so the code may not set during a warm-engine test drive and can be missed during routine diagnostics.
- A dirty or contaminated mass air flow sensor can skew the calculated air flow and cause the computer to misinterpret the secondary air sensor signal, setting P2430 as a secondary code.

Can I keep driving with P2430?

The vehicle remains safe to drive under normal conditions because the secondary air injection system only operates briefly during cold starts to reduce emissions. Avoid prolonged idling and schedule diagnosis soon, especially if you have an emissions inspection coming up, as the check engine light will cause an automatic failure.

Tools that help

- OBD-II scan tool with live data and freeze frame capability
- Digital multimeter
- Hand vacuum pump
- Basic socket and wrench set
- Inspection mirror and flashlight



Reading P2430

- P** Powertrain: engine, transmission and emissions.
- 2** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 4** Auxiliary emission controls.
- 30** 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 · **P2431** Secondary Air Injection System Air Flow/Pressure Sensor Circ

See it working

Watch the animated explainer [EV Powertrain Trainer: How an Electric Car Drives](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2430/>

