

GENERIC · POWERTRAIN

P2D13

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2D13

Exhaust Flow Control Valve C Control Circuit/Open

P2D13 indicates that the powertrain control module (PCM) has detected an open circuit on the control circuit for the exhaust flow control valve 'C', which is used to manage exhaust flow for noise, backpressure, or thermal management. The PCM commands the valve, but the circuit shows no continuity or unexpected voltage, so the valve cannot be actuated as intended.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Hybrid propulsion

Symptoms you may notice

- Illumination of the check engine light (malfunction indicator lamp, MIL) with no other noticeable symptoms.
- A faint or noticeable exhaust rattle or buzz from the valve area when the engine is running, especially during cold starts or active commands.
- Reduced engine performance or poor fuel economy if the valve remains stuck in a restrictive position.
- An audible exhaust leak or change in exhaust tone if the valve fails open or closed.
- In some vehicles, a message in the driver information center indicating an exhaust system fault or reduced power.

Common causes, most likely first

- 1 Broken, chafed, or corroded wiring in the control circuit between the PCM and the exhaust flow control valve.
- 2 A failed exhaust flow control valve actuator (solenoid or electric motor) with an open internal coil.
- 3 A loose or corroded electrical connector at the valve or at the PCM.
- 4 A blown fuse or relay that supplies power to the valve control circuit (if applicable).
- 5 PCM internal driver failure, though this is less common and should be confirmed last.
- 6 Aftermarket or damaged exhaust components that interfere with the valve wiring or connector.



How to diagnose and fix it

- 1 Inspect the exhaust flow control valve connector and wiring for obvious damage, corrosion, or loose pins; repair or replace as needed.
- 2 Check the fuse and relay that supply power to the valve control circuit, if the circuit is fused.
- 3 Disconnect the valve and measure resistance across the actuator; compare to the manufacturer's specification to rule out an open coil.
- 4 Backprobe the control circuit at the PCM and command the valve with a scan tool to verify the PCM is sending a signal and the circuit is continuous.
- 5 Perform a voltage drop test on both the power and ground sides of the circuit to identify high resistance.
- 6 If the circuit tests good, substitute a known-good valve or actuator to confirm the fault before replacing the PCM.
- 7 Clear the code and perform a road test to verify the repair and ensure the monitor runs to completion.

Don't condemn the valve before checking the harness

- A common oversight is replacing the exhaust flow control valve when the real problem is a chafed wire near the exhaust manifold or a corroded connector pin that creates an intermittent open.
- The code can set intermittently due to vibration or thermal cycling, so a wiggle test of the harness while monitoring live data often reveals the fault when a static resistance check passes.
- Some vehicles use the same valve for active exhaust noise control, and a failure may not affect performance at all, leading owners to ignore the light until an emissions test fails.
- The PCM may set P2D13 if the control circuit is open, but a shorted or grounded circuit will typically set a different code, so do not assume the valve itself is defective based on this code alone.
- After repairs, the PCM may require a relearn or adaptation reset for the valve position before the code will clear and stay off.

Can I keep driving with P2D13?

You can generally continue driving with this code, but avoid aggressive acceleration or heavy load if you notice reduced performance or unusual exhaust noise. Have the fault diagnosed soon, as a stuck valve can affect emissions and exhaust system longevity.

Tools that help

- OBD-II scan tool with bidirectional control capability
- Digital multimeter (DMM)
- Test light
- Wire piercing probes or backprobe pins
- Service information for wiring diagrams and resistance specifications



Reading P2D13

- P** Powertrain: engine, transmission and emissions.
- 2** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- D** Hybrid propulsion.
- 13** The exact fault within that area.

Often seen with

P2D10 Engine Pre-Ignition Above Threshold - Forced Limited Power · **P2D11** Exhaust Flow Control Valve A Position Not Learned · **P2D12** Exhaust Flow Control Valve B Position Not Learned · **P2D14** Exhaust Flow Control Valve C Control Circuit Low · **P2D15** Exhaust Flow Control Valve C Control 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/p2d13/>

