



P2BFF

Exhaust Flow Control Valve B Position Circuit High

P2BFF indicates that the powertrain control module has detected an abnormally high voltage on the signal circuit for the exhaust flow control valve B position sensor. This sensor reports the actual position of a valve that directs exhaust flow, and a high voltage reading typically means the signal wire is shorted to power or the sensor's internal circuit has failed.

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, often with no other noticeable symptoms
- Reduced engine performance or power, especially under load
- Poor fuel economy due to incorrect exhaust flow management
- Rough idle or hesitation during acceleration
- In rare cases, a loud exhaust note or rattling from the valve area if it sticks open

Common causes, most likely first

- 1 Signal circuit shorted to voltage (power) between the sensor and the PCM
- 2 Faulty exhaust flow control valve position sensor (internal short)
- 3 Damaged or corroded connector pins at the sensor or PCM
- 4 Failed exhaust flow control valve actuator causing the sensor to read out of range
- 5 PCM internal fault (rare, but possible if all other circuits test good)

How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data to confirm the code and check for related codes
- 2 Visually inspect the sensor, connector, and wiring for damage, corrosion, or loose pins
- 3 Disconnect the sensor and measure reference voltage and ground at the harness connector
- 4 Check the signal circuit for a short to voltage using a multimeter with the key on and sensor disconnected
- 5 Test the sensor's resistance or output signal with a scan tool while manually moving the valve (if accessible)
- 6 Repair or replace the faulty wiring, connector, or sensor as needed
- 7 Clear codes and perform a road test to verify the repair and ensure the monitor runs



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- A high voltage code on a position sensor often results from a short to power in the signal wire, which can be caused by chafed insulation against a hot exhaust component or a nearby power wire.
- Technicians sometimes replace the sensor only to find the connector pins are pushed back or corroded, so always perform a pin drag test and inspect the terminals closely.
- The exhaust flow control valve may be vacuum-operated or electrically actuated; a stuck valve can force the sensor to report an implausible position, setting this code even if the sensor itself is good.
- On some vehicles, this code can be set by a faulty PCM driver, but that should be the last suspect after all circuit and component tests pass.
- A high voltage reading does not always mean the sensor is defective; a poor ground at the sensor can cause the signal voltage to float high, so check grounds before condemning parts.

Can I keep driving with P2BFF?

You can usually drive the vehicle with this code, but avoid heavy acceleration or towing until it is repaired, as the exhaust flow valve may not function correctly and could affect engine performance or emissions. If the check engine light starts flashing or you notice severe power loss, stop driving and seek professional diagnosis.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Back probe pins or breakout box
- Wiring diagram for the specific vehicle
- Socket set and screwdrivers for component access

Reading P2BFF

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

Often seen with

P2BFE Exhaust Flow Control Valve B Position Circuit Low · **P2C00** Fuel Pressure Regulator C Performance · **P2C01** Fuel Pressure Regulator D Performance · **P2C02** Fuel Pressure Regulator D Control Circuit/Open · **P2C03** Fuel Pressure Regulator D Control Circuit Low



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/p2bff/>

