

GENERIC · BODY

B0168

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

B0168

HVAC Air Mix Door Performance

B0168 indicates the heating, ventilation, and air conditioning (HVAC) control module has detected a performance fault in the air mix door, which is the flap that blends hot and cold air to achieve the requested cabin temperature. The computer typically monitors the door's actuator motor or feedback circuit and sets this code when the door fails to reach or hold the commanded position within an expected time or range.

SYSTEM

Body

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Airbags, seats, doors, lights and comfort systems

Symptoms you may notice

- Temperature blend does not change when you adjust the climate control, often stuck on full hot or full cold
- A clicking, ticking, or whirring noise from behind the dashboard when the ignition is turned on or the temperature is changed
- One side of the cabin (driver or passenger) stays at a different temperature than the other on dual-zone systems
- The air conditioning may run continuously or not at all because the blend door cannot isolate hot air from the evaporator
- Often no symptoms besides the warning light, especially if the door is only slightly out of calibration

Common causes, most likely first

- 1 Failed or binding air mix door actuator motor (most common)
- 2 Broken or stripped plastic gears inside the actuator or on the door shaft
- 3 Air mix door physically stuck, warped, or binding in its housing due to debris or foam deterioration
- 4 Damaged or corroded wiring and connectors between the HVAC control module and the actuator
- 5 Failed HVAC control module or a software calibration issue in the module
- 6 Low system voltage or a weak battery causing the actuator to lose its learned position



How to diagnose and fix it

- 1 Connect a scan tool and read all HVAC module codes, then command the air mix door through its full range while watching live data for commanded versus actual position
- 2 Inspect the actuator and door linkage for binding, broken gears, or foreign objects, and verify the door moves freely by hand with the actuator removed
- 3 Check the wiring harness and connectors at the actuator and HVAC module for chafing, corrosion, or loose pins, and measure reference voltage and ground
- 4 Perform the manufacturer's HVAC actuator calibration or relearn procedure after any repair or battery replacement
- 5 Replace the air mix door actuator if it fails to move or follow commands, then clear codes and retest
- 6 If the door itself is damaged or binding, repair or replace the blend door assembly or HVAC case as required
- 7 As a last step, diagnose or reprogram the HVAC control module if all mechanical and electrical checks pass but the code persists

Before you replace the blend door actuator

- A weak battery or low charging voltage can cause the HVAC module to lose the actuator's learned end stops, setting B0168 even though the actuator is healthy; always check battery and charging system first.
- Many actuators are replaced unnecessarily when the real problem is a broken door shaft or a piece of broken foam jamming the blend door inside the case.
- On dual-zone systems, B0168 may refer to only one side's air mix door, so confirm which actuator the scan tool data identifies before ordering parts.
- After replacing an actuator, skipping the calibration or relearn procedure will often set the code again immediately because the module does not know the new end stops.
- A HVAC control module that has been disconnected or had a low-voltage event may store B0168 as a history code that clears after a successful calibration drive cycle.

Can I keep driving with B0168?

The vehicle remains safe to drive because the air mix door only affects cabin temperature comfort, not engine operation or safety systems. Avoid extreme temperature settings until repaired, and do not ignore the code if windshield defogging performance is affected in cold or humid weather.

Tools that help

- OBD-II scan tool with HVAC module bidirectional control and live data
- Digital multimeter for voltage and continuity checks
- Trim removal tools to access the actuator behind the dashboard
- Socket and ratchet set for actuator mounting bolts
- Service information for the specific vehicle's HVAC calibration procedure



Reading B0168

- B** Body: airbags, seats, doors, lights and comfort systems.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 1** Airbags, seats, doors, lights and comfort systems.
- 68** The exact fault within that area.

Often seen with

B0164 Air Bag In-Vehicle Temperature Sensor Circuit · **B0166** HVAC Discharge Air Temperature Sensor

See it working

Watch the animated explainer [Engine Cooling System Trainer: How Engines Stay Cool](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/b0168/>

