

GENERIC · BODY

B0300

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

B0300

HVAC Evaporator Temperature Sensor Circuit

B0300 indicates that the body control module or HVAC control module has detected an out-of-range signal from the evaporator temperature sensor circuit, which monitors the temperature of the air conditioning evaporator core. The computer expects a voltage within a specific range that corresponds to a plausible temperature, and it flags this code when the signal falls outside that window or is intermittent.

SYSTEM

Body

CODE TYPE

Generic (all makes)

SEVERITY

Low

FIX DIFFICULTY

Intermediate

AREA

Airbags, seats, doors, lights and comfort systems

Symptoms you may notice

- Air conditioning may blow warm or not cool properly
- Evaporator may freeze up, causing reduced airflow from vents
- A/C compressor may cycle rapidly or not engage at all
- Often no symptoms besides the warning light, especially in mild weather
- HVAC control head may show erratic temperature readings or default to a fixed setting

Common causes, most likely first

- 1 Faulty evaporator temperature sensor
- 2 Damaged or corroded wiring or connector at the sensor
- 3 Open or short circuit in the sensor signal or ground circuit
- 4 Failed HVAC control module or body control module
- 5 Evaporator sensor installed incorrectly or loose
- 6 Moisture intrusion into the sensor connector causing signal corruption



How to diagnose and fix it

- 1 Scan all modules for stored and pending codes to confirm B0300 is current and not a history code
- 2 Visually inspect the evaporator temperature sensor and its connector for damage, corrosion, or loose pins
- 3 Measure sensor resistance and compare to the manufacturer's temperature-resistance chart
- 4 Backprobe the sensor signal and ground wires at the module to check for opens, shorts, or excessive voltage drop
- 5 Check for continuity and resistance in the wiring harness between the sensor and the control module
- 6 If wiring and sensor test good, substitute a known-good sensor to see if the code clears
- 7 Replace the sensor or repair the circuit as needed, then clear codes and verify the A/C system operates correctly

Evaporator sensor faults that mimic other A/C problems

- A failed evaporator temperature sensor can cause the compressor clutch to cycle rapidly, which many technicians misdiagnose as a failing compressor or low refrigerant charge.
The sensor is often located in a difficult-to-reach spot inside the HVAC case, so wiring damage from previous repairs or rodent chewing is a common hidden cause.
- On some vehicles, the evaporator temperature sensor signal is shared with the ambient temperature sensor or cabin temperature sensor, so a fault in one can set multiple codes.
- A poor ground connection at the HVAC control module can skew the evaporator sensor reading without setting a dedicated ground code, leading to misdiagnosis.

After replacing the sensor, some vehicles require a recalibration or learn procedure for the HVAC control module to recognize the new sensor range.

Can I keep driving with B0300?

The vehicle remains safe to drive because this fault affects only the air conditioning performance and does not impair engine operation or safety systems. Avoid using the A/C until repaired if you notice evaporator freeze-up or unusual noises, as continued operation could stress the compressor.

Tools that help

- OBD-II scan tool with body code capability
- Digital multimeter
- Backprobe pins or breakout box
- Vehicle-specific service information for resistance charts and wiring diagrams
- Socket set and trim removal tools for sensor access



Reading B0300

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

Often seen with

B0305 HVAC Sun Load Sensor Circuit

See it working

Watch the animated explainer [How Hydraulic Brakes Work: Pedal to Caliper](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/b0300/>

