

GENERIC · POWERTRAIN

P0D68

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

## P0D68

# A/C Compressor Motor Voltage Sensor A Circuit

P0D68 indicates that the air conditioning (A/C) compressor motor voltage sensor A circuit has reported an abnormal voltage reading to the control module. The computer detects a voltage that falls outside the expected range for the compressor's operating state, which can prevent the A/C system from engaging or cause it to shut down for protection.

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

## Symptoms you may notice

- The A/C compressor may not engage at all, resulting in no cold air from the vents.
- The A/C compressor may run intermittently or cycle rapidly before stopping.
- A warning light on the dashboard, often the A/C or service vehicle soon light, may illuminate.
- In some vehicles, the climate control panel may flash or show a fault message.
- Often no symptoms besides the warning light, especially if the fault is intermittent.
- The engine cooling fan may run continuously as a failsafe when the A/C request is active.

## Common causes, most likely first

- A faulty A/C compressor motor voltage sensor or its internal circuitry.
- Damaged, corroded, or loose wiring or connectors in the sensor A circuit.
- A short to ground or short to voltage in the sensor signal or reference circuit.
- An open circuit in the sensor wiring, including a broken wire or poor terminal tension.
- A failing A/C compressor control module or driver that misreads the sensor signal.
- Low or contaminated refrigerant oil affecting sensor operation (less common).
- A defective A/C compressor motor causing abnormal voltage feedback to the sensor.



## How to diagnose and fix it

- 1 Perform a visual inspection of the A/C compressor harness and connectors for damage, corrosion, or loose pins.
- 2 Use a scan tool to read live data for the A/C compressor motor voltage sensor and compare to specifications.
- 3 Check the sensor reference voltage and ground at the sensor connector with a digital multimeter.
- 4 Test the sensor signal circuit for continuity, shorts to ground, and shorts to voltage with the ignition off.
- 5 If wiring is good, substitute a known-good sensor or perform a resistance check on the sensor itself.
- 6 Inspect the A/C compressor control module for signs of damage or water intrusion, and test its outputs if accessible.
- 7 Clear the code and verify the repair by running the A/C system and monitoring live data for normal voltage readings.

## Before you replace the A/C compressor

- A loose or corroded connector at the compressor is a frequent culprit that mimics a failed sensor, so always wiggle-test the harness while watching live data.
- The code can set intermittently due to vibration or heat, and a simple continuity test may pass when the fault is not present, so road-test with the scanner recording.
- Some vehicles use the compressor motor voltage sensor for clutch engagement feedback, and a fault can disable the A/C even if the compressor itself is mechanically sound.
- A weak battery or charging system issue can cause erratic sensor readings and set this code, so verify system voltage first.
- Replacing the compressor without diagnosing the circuit often leads to a repeat failure because the original wiring fault remains.

## Can I keep driving with P0D68?

You can usually continue driving with this code because the A/C system may simply be disabled, but avoid using the A/C to prevent potential compressor damage. If the engine overheats or the cooling fan runs constantly, have the vehicle inspected promptly.

## Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wire piercing probes or back-probe kit
- Electrical contact cleaner
- Vehicle-specific service information for wiring diagrams



## Reading P0D68

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

## Often seen with

**P0532** A/C Refrigerant Pressure Sensor 'A' Circuit Low · **P0533** A/C Refrigerant Pressure Sensor 'A' Circuit High  
 · **P0645** A/C Clutch Relay Control Circuit · **P0D69** A/C Compressor Motor Voltage Sensor A Performance ·  
**P0D6A** A/C Compressor Motor Voltage Sensor A Circuit High

## See it working

Watch the animated explainer [How an Automatic Transmission Works, Gear by Gear](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0d68/>

