

GENERIC · POWERTRAIN

P0D69

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0D69

A/C Compressor Motor Voltage Sensor A Performance

P0D69 indicates that the air conditioning (A/C) compressor motor voltage sensor A is not reporting a plausible voltage to the control module, so the module cannot confirm the compressor's electrical health. The computer compares the sensor signal against expected values and flags the code when the signal falls outside the valid range or behaves erratically.

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

Symptoms you may notice

- The A/C may stop cooling or blow warm air intermittently.
- The A/C compressor clutch may fail to engage, or engage and disengage rapidly.
- A warning light on the dashboard, often the A/C system indicator or check engine light.
- The blower motor may still work, but air is not cold.
- Often no symptoms besides the warning light, especially if the fault is intermittent.

Common causes, most likely first

- Faulty A/C compressor motor voltage sensor A.
- Damaged or corroded wiring or connector at the sensor or compressor.
- Open or short circuit in the sensor signal or reference voltage circuit.
- Failed A/C compressor motor or internal compressor fault affecting sensor output.
- Control module software or hardware issue misinterpreting the sensor signal.
- Poor ground connection for the sensor or compressor circuit.

How to diagnose and fix it

- Scan all modules for stored codes and freeze-frame data to confirm P0D69 is active and not history.
- Visually inspect the sensor, connector, and wiring for damage, corrosion, or loose pins.
- Measure sensor reference voltage and signal voltage with a multimeter and compare to manufacturer specifications.
- Check continuity and resistance of the sensor signal and ground circuits to rule out open or short circuits.
- Test the sensor output with a scope or live data to see if it tracks compressor operation smoothly.
- If the sensor is faulty, replace it and clear codes; if wiring is faulty, repair the harness.
- Verify the repair by clearing codes and running the A/C system through several cycles to confirm the code does not return.



Don't overlook the sensor ground circuit

- A poor ground at the compressor body or chassis can mimic a failed sensor, so always load-test the ground circuit before condemning the sensor.
- Intermittent codes often stem from a chafed wire near a sharp bracket or a connector that wicks moisture, which visual inspection alone may miss.
- The code can set even when the A/C still cools adequately if the sensor signal is only slightly out of range, so performance alone is not a reliable diagnostic indicator.
- Some vehicles use the same voltage sensor for multiple functions, so a failure may also affect compressor speed control or system protection strategies.
- Aftermarket replacement sensors sometimes have different voltage curves, so use a known-good OEM-quality part to avoid repeat codes.

Can I keep driving with P0D69?

You can usually continue driving because the A/C system is not safety-critical, but avoid using the A/C until the fault is repaired to prevent potential compressor damage. If the compressor is making noise or the belt is slipping, stop using the A/C immediately and have it inspected.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Oscilloscope (optional for signal analysis)
- Wire probe set and connector removal tools
- Service information with wiring diagrams and voltage specifications

Reading P0D69

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
D	Hybrid propulsion.
69	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
 · **P0D6A** A/C Compressor Motor Voltage Sensor A Circuit High · **P0D6B** A/C Compressor Motor Voltage Sensor A Circuit Low · **P0D6C** A/C Compressor Motor Voltage Sensor A Circuit Intermittent/E



See it working

Watch the animated explainer [How Coil-on-Plug Ignition Works: Coil and Spark Plug](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0d69/>

