

GENERIC · POWERTRAIN

P0D7C

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0D7C

A/C Compressor Motor Phase V Current Low

This code indicates that the air conditioning (A/C) compressor motor's phase V current draw is lower than the expected value during operation. The powertrain control module (PCM) monitors the current in each phase of the three-phase motor and sets this code when the measured current for phase V falls below a calibrated threshold, typically indicating an open circuit, high resistance, or a faulty current sensor.

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

Symptoms you may notice

- The A/C compressor may not engage or may run intermittently, resulting in little or no cooling.
- The climate control system may blow warm air even when cooling is requested.
- The A/C compressor clutch may not engage, or the compressor may spin but not pump refrigerant.
- A warning light (A/C or check engine) may illuminate on the dashboard.
- Often no symptoms besides the warning light, especially if the fault is intermittent or only affects one phase under certain conditions.

Common causes, most likely first

- Open or high-resistance wiring in the phase V circuit between the compressor motor and the control module.
- Faulty A/C compressor motor winding (open or shorted) causing low current in phase V.
- Defective current sensor or inverter inside the compressor control module.
- Corroded or loose electrical connector at the compressor or control module.
- Internal failure in the PCM or A/C control module affecting current monitoring.
- Damaged or pinched wire harness causing intermittent open circuit.



How to diagnose and fix it

- 1 Verify the code with a scan tool and check for any related codes in the A/C and powertrain systems.
- 2 Inspect the wiring harness and connectors at the A/C compressor and control module for damage, corrosion, or looseness.
- 3 Measure the resistance of the phase V circuit from the control module to the compressor motor and compare to specifications.
- 4 Check the compressor motor windings for continuity and resistance using a multimeter; compare across all phases.
- 5 Test the current sensor output or perform a bidirectional test of the compressor with a scan tool to observe phase currents.
- 6 If wiring and motor are good, suspect the compressor control module or PCM; follow manufacturer diagnostic procedures for module testing.
- 7 Replace the faulty component (wiring, compressor, or control module) as needed and clear the code to verify the repair.

Phase V Current Low: What Technicians Check First

- A low current reading in one phase often points to a poor connection or damaged wire rather than a failed compressor, so always perform a thorough visual and resistance check before condemning the motor.
- Some vehicles use a combined inverter and compressor assembly where the current sensor is integrated; a fault in the sensor can mimic a motor problem and lead to unnecessary compressor replacement.
- Intermittent phase V current codes can be caused by vibration-induced wire chafing, so wiggle-test the harness while monitoring live data to catch the fault.
- The PCM may disable the A/C compressor entirely when this code is set to protect the system, so lack of cooling does not necessarily mean the compressor itself is defective.
- Always check for technical service bulletins (TSBs) for the specific vehicle, as some models have known issues with connector seals or software calibration affecting current sensing.

Can I keep driving with P0D7C?

You can generally drive the vehicle safely, but the A/C may not function and the system could be disabled. Avoid using the A/C until the fault is repaired to prevent potential further damage to the compressor or control module.

Tools that help

- OBD-II scan tool with live data and bidirectional control
- Digital multimeter (DMM) with resistance and current measuring capability
- Wiring diagram and service information for the specific vehicle
- Test light or power probe for circuit testing
- Insulation resistance tester (megohmmeter) for motor winding checks



Reading P0D7C

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- D** Hybrid propulsion.
- 7C** The exact fault within that area.

Often seen with

P0D7A A/C Compressor Motor Phase U Current Low · **P0D7B** A/C Compressor Motor Phase U Current High · **P0D7D** A/C Compressor Motor Phase V Current High · **P0D7E** A/C Compressor Motor Phase W Current Low · **P0D80** Battery Charger Input Circuit/Open

See it working

Watch the animated explainer [Turbocharger Trainer: Boost, Wastegate and Intercooler](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0d7c/>

