

GENERIC · POWERTRAIN

P0D75

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0D75

A/C Compressor Control Module Output Driver Temperature Sensor Circuit

P0D75 indicates that the air conditioning (A/C) compressor control module has detected an abnormal temperature reading from its internal output driver temperature sensor circuit. The module monitors the temperature of the power electronics that drive the compressor clutch or electric compressor, and it sets this code when the sensor signal falls outside the expected range or behaves erratically.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Hybrid propulsion

Symptoms you may notice

- The A/C may stop cooling or blow warm air intermittently.
- The compressor clutch may fail to engage or disengage unexpectedly.
- A warning light on the dashboard, often the A/C or check engine light.
- The climate control system may default to a fail-safe mode, such as running the fan only.
- In some cases, there are no symptoms besides the stored trouble code and illuminated warning light.
- The A/C may work normally when cold but cut out after the vehicle warms up.

Common causes, most likely first

- 1 Faulty output driver temperature sensor internal to the A/C compressor control module.
- 2 Damaged or corroded wiring or connector between the sensor and the control module.
- 3 A short or open circuit in the sensor signal circuit, often due to chafed insulation or loose pins.
- 4 Overheating of the control module caused by poor mounting, inadequate airflow, or a failing cooling fan.
- 5 A failing A/C compressor control module itself, where the sensor circuit is integrated and cannot be serviced separately.
- 6 Electrical interference or voltage spikes from other components on the same power feed.
- 7 Moisture intrusion into the control module or connector, leading to signal corruption.



How to diagnose and fix it

- 1 Connect a scan tool and verify P0D75 is current or pending, then check for any related codes in the A/C and powertrain systems.
- 2 Inspect the A/C compressor control module connector and wiring for corrosion, loose pins, or physical damage.
- 3 Measure the resistance and voltage on the sensor signal circuit at the module connector and compare to the manufacturer's specification.
- 4 Check the control module's ground and power supply for voltage drops or excessive resistance.
- 5 Monitor the sensor temperature reading on the scan tool while wiggling the harness and tapping the module to detect intermittent faults.
- 6 If the sensor circuit checks out, test the control module with a known-good unit or follow the manufacturer's diagnostic flow for internal sensor failure.
- 7 Replace the faulty control module or sensor as required, then clear codes and verify the A/C system operates correctly through a full drive cycle.

When the module itself is the culprit

- Many technicians replace the A/C compressor when the real fault is the control module's internal temperature sensor, so always verify the sensor signal at the module before condemning the compressor.
- The output driver temperature sensor is often integrated into the control module and not available as a separate part, meaning a sensor fault may require module replacement.
- A poor ground connection at the module can cause the temperature sensor circuit to read incorrectly, mimicking a failed sensor.
- Heat soak after shutdown can trigger this code intermittently, so testing when the engine is cold may miss the fault.
- This code can be set by a low battery or charging system issue that causes the module to log implausible sensor values during cranking.

Can I keep driving with P0D75?

You can usually continue driving with this code because the A/C system may simply stop cooling, but avoid long trips in hot weather if comfort is critical. Have the fault diagnosed soon to prevent potential damage to the compressor or control module from overheating.



Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the A/C compressor control module circuit
- Back probe pins or breakout box
- Heat gun or hair dryer for temperature simulation
- Basic hand tools for connector and module access

Reading P0D75

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
D	Hybrid propulsion.
75	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 · **P0D74** A/C Compressor Control Module Internal Temperature Sensor A · **P0D76** A/C Compressor Control Module Output Driver Temperature Sens

See it working

Watch the animated explainer [How a Catalytic Converter Works: 3D Cutaway](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0d75/>

