

GENERIC · POWERTRAIN

P0EBA

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0EBA

A/C Compressor Motor Phase V Current Sensor Circuit Range/Performance

P0EBA indicates that the air conditioning compressor motor phase V current sensor circuit is reporting a value outside its expected range or performance window. The computer compares the sensor signal against known good limits and flags the code when the signal is too high, too low, or inconsistent with compressor operation.

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

Symptoms you may notice

- Air conditioning may blow warm air or fail to cool the cabin
- The A/C compressor clutch may not engage or may cycle rapidly
- Intermittent cooling performance that varies with engine speed or temperature
- A stored warning light on the dashboard, often with no other noticeable symptoms
- Possible abnormal noises from the compressor area if the fault is mechanical in nature

Common causes, most likely first

- Faulty current sensor or sensor wiring harness (open, short, or high resistance)
- Poor electrical connection at the sensor or compressor connector
- Failed A/C compressor motor phase winding or internal short
- Damaged or worn compressor clutch assembly affecting current draw
- Corroded or damaged pins in the sensor circuit connector
- Control module software or internal driver fault (less common)

How to diagnose and fix it

- Perform a visual inspection of the sensor wiring and connectors for damage or corrosion
- Use a scan tool to read live data for the phase V current sensor and compare to specifications
- Check resistance and continuity of the sensor circuit from the sensor to the control module
- Test the A/C compressor clutch and motor for abnormal current draw or winding resistance
- Inspect and clean all related grounds and power connections
- If wiring and sensor are good, test or replace the current sensor as needed
- After repairs, clear codes and verify the A/C system operates correctly with no recurring fault



Don't overlook the current sensor wiring

- A loose or corroded connector at the compressor is a frequent cause that mimics a failed sensor.
- The code can set intermittently due to vibration or heat, so a wiggle test of the harness is essential.
- A weak battery or charging system can cause voltage spikes that trigger false current sensor codes.
- Replacing the compressor without testing the sensor circuit first often leads to a repeat failure.
- Some vehicles require a relearn or calibration procedure after sensor replacement to avoid a persistent code.

Can I keep driving with P0EBA?

You can usually drive the vehicle safely, but the air conditioning may not function and prolonged operation with a faulty compressor could lead to further damage. Avoid using the A/C until the fault is diagnosed and repaired.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the A/C compressor circuit
- Basic hand tools (sockets, wrenches, screwdrivers)
- Electrical contact cleaner and dielectric grease

Reading P0EBA

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

Often seen with

P0EB8 A/C Compressor Motor Phase U Current Sensor Circuit Intermit · **P0EB9** A/C Compressor Motor Phase V Current Sensor Circuit · **P0EBB** A/C Compressor Motor Phase V Current Sensor Circuit Low · **P0EBC** A/C Compressor Motor Phase V Current Sensor Circuit High · **P0EBD** A/C Compressor Motor Phase V Current Sensor Circuit Intermit

See it working

Watch the animated explainer [How Regenerative Braking Works in Electric Cars](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0eba/>

