



P0EBE

A/C Compressor Motor Phase W Current Sensor Circuit

P0EBE indicates that the powertrain control module has detected an abnormal electrical condition in the current sensor circuit for phase W of the air conditioning compressor motor. This sensor monitors the current flowing through one phase of the compressor's three-phase motor, and the code sets when the signal falls outside the expected range or behaves erratically.

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

Symptoms you may notice

- The air conditioning may stop cooling or blow warm air intermittently.
- The climate control panel may show a fault or the A/C button may flash.
- The compressor clutch may fail to engage or disengage unexpectedly.
- Often no symptoms besides the warning light, especially if the fault is intermittent.
- Possible reduced engine performance or increased fuel consumption if the PCM limits A/C operation.

Common causes, most likely first

- 1 Faulty current sensor for phase W of the compressor motor.
- 2 Damaged or corroded wiring or connector at the sensor or compressor.
- 3 Open or short circuit in the sensor signal or ground circuit.
- 4 Failed compressor motor or internal motor winding issue affecting current draw.
- 5 PCM software glitch or internal fault in the current sensor input circuit.
- 6 Loose or damaged ground connection for the A/C compressor circuit.

How to diagnose and fix it

- 1 Perform a visual inspection of the compressor, sensor, and all related wiring for damage or corrosion.
- 2 Use a scan tool to check for other codes and view live data for the phase W current sensor if available.
- 3 Test the sensor circuit for continuity, short to ground, and short to power using a multimeter.
- 4 Check the sensor's reference voltage and ground at the connector to confirm proper power supply.
- 5 If the circuit tests good, replace the current sensor and clear the code to see if it returns.
- 6 If the code persists, diagnose the compressor motor and internal wiring for faults.
- 7 As a last step, consider PCM reprogramming or replacement if all other components test normal.



Before you replace the A/C compressor

- A loose or corroded ground connection at the compressor can mimic a failed current sensor and is often overlooked during diagnosis.
- The code can set intermittently due to vibration or heat, so a wiggle test of the harness while monitoring live data is a valuable step.
- Some vehicles use a combined current sensor for all three phases; a fault in one phase can affect the entire A/C operation.
- Replacing the compressor without testing the sensor circuit first can lead to a repeat failure if the wiring is the real culprit.
- The PCM may disable the A/C compressor to protect the system, so the driver may not notice any performance issue beyond the warning light.

Can I keep driving with P0EBE?

You can generally continue driving with this code, but the air conditioning may not function properly and the compressor could be disabled. Avoid using the A/C until the fault is repaired to prevent potential damage to the compressor or other components.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the A/C compressor circuit
- Basic hand tools for connector and sensor access

Reading P0EBE

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

Often seen with

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 · **P0EBF** A/C Compressor Motor Phase W Current Sensor Circuit Range/Pe · **P0EC0** A/C Compressor Motor Phase W Current Sensor Circuit Low



See it working

Watch the animated explainer [How Hydraulic Brakes Work: Pedal to Caliper](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0ebe/>

