

GENERIC · POWERTRAIN

P0BE8

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0BE8

Drive Motor A Phase U Current Sensor Circuit High

P0BE8 indicates that the inverter or motor control module has detected an abnormally high voltage from the current sensor that monitors phase U of drive motor A, which is one of the three power leads feeding the traction motor. The circuit is reporting a current reading that exceeds the sensor's normal operating range, so the controller sets this code to protect the hybrid or electric drive system from potential overcurrent damage.

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

Symptoms you may notice

- Illumination of the check engine light or service vehicle soon message, often with no other noticeable symptoms
- Reduced power or a limp-home mode that limits vehicle speed and acceleration
- The hybrid or electric system may shut down entirely, preventing the vehicle from starting or moving
- Intermittent hesitation or shuddering during acceleration as the controller reacts to erratic current signals
- A warning message on the dash indicating a fault in the high-voltage system or drive motor

Common causes, most likely first

- 1 A faulty phase U current sensor inside the inverter or motor control module
- 2 Damaged or chafed wiring in the phase U current sensor circuit, including shorts to power or ground
- 3 Corroded or loose electrical connectors at the current sensor or controller
- 4 A failed inverter or motor control module that is misinterpreting sensor data
- 5 Internal damage to the drive motor causing abnormal current draw that exceeds sensor range
- 6 A weak or failing 12-volt battery that causes unstable reference voltage to the sensor



How to diagnose and fix it

- 1 Connect a scan tool and record all stored codes and freeze-frame data to confirm P0BE8 is current and not history
- 2 Inspect the phase U current sensor wiring and connectors for obvious damage, corrosion, or loose pins
- 3 Measure the sensor reference voltage and signal voltage with a multimeter and compare to manufacturer specifications
- 4 Perform a voltage drop test on the sensor ground circuit to rule out high resistance
- 5 Check the 12-volt battery condition and charging system, as low voltage can skew sensor readings
- 6 If the sensor circuit tests good, follow the manufacturer's diagnostic flow to test the inverter or motor control module
- 7 Replace the faulty current sensor or inverter assembly only after confirming the circuit is not the cause

What a high phase U current reading really means

- A high current sensor code does not automatically mean the sensor is bad; a shorted motor winding or inverter fault can cause real overcurrent that the sensor correctly reports.
- The phase U current sensor is often integrated into the inverter assembly, so replacing it may require replacing the entire inverter on some vehicles.
- Intermittent wiring faults from vibration or heat can set this code without any permanent sensor failure, so wiggle tests and road testing with a scan tool are valuable.
- A weak 12-volt battery can cause the controller to set false current sensor codes because the sensor's reference voltage becomes unstable.
- This code is specific to the motor phase current sensor circuit, not the battery current sensor, so do not confuse it with hybrid battery current codes.

Can I keep driving with P0BE8?

Do not continue driving with this code active, as the vehicle may enter a reduced-power mode or shut down unexpectedly, and a real overcurrent fault could damage the inverter or motor. Have the vehicle towed to a qualified hybrid or electric vehicle technician for diagnosis.

Tools that help

- OBD-II scan tool with hybrid/EV capability
- Digital multimeter with min/max recording
- Oscilloscope for signal analysis
- Manufacturer service information and wiring diagrams
- Insulated hand tools for high-voltage safety



Reading P0BE8

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- B** Hybrid propulsion.
- E8** The exact fault within that area.

Often seen with

P0A3F Drive Motor A Position Sensor Circuit · **P0BE7** Drive Motor A Phase U Current Sensor Circuit Low · **P0BE9** Drive Motor A Phase V Current Sensor Circuit · **P0BEA** Drive Motor A Phase V Current Sensor Circuit Range/Performan · **P0BF0** Drive Motor A Phase W Current Sensor Circuit High

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/p0be8/>

