



## P0BFC

# Drive Motor B Phase W Current Sensor Circuit High

P0BFC indicates that the computer monitoring the drive motor B phase W current sensor has detected an abnormally high signal voltage, which corresponds to a current reading outside the expected range. The sensor circuit is reporting a voltage above the calibrated threshold, suggesting a fault in the sensor, its wiring, or the circuit reference.

|            |                     |          |                |                   |
|------------|---------------------|----------|----------------|-------------------|
| 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 no symptoms besides the warning light
- Reduced power or limp mode due to hybrid system fault
- Inconsistent or jerky acceleration from the electric drive motor
- Possible shutdown of the hybrid system or inability to start
- Abnormal noise or vibration from the drive motor under load

## Common causes, most likely first

- 1 Faulty phase W current sensor
- 2 Open or shorted signal wire between the sensor and the control module
- 3 Poor electrical connection at the sensor or control module connector
- 4 High resistance in the sensor ground circuit
- 5 Internal fault in the drive motor control module
- 6 Electrical interference or damaged shielding on the sensor wiring
- 7 Moisture or corrosion in the sensor connector



## How to diagnose and fix it

- 1 Verify the code with a scan tool and check for any related codes in other modules
- 2 Inspect the sensor connector and wiring for damage, corrosion, or loose pins
- 3 Measure the sensor reference voltage and ground at the connector
- 4 Check the signal wire for continuity and short to voltage or ground
- 5 Compare live sensor data with a known-good value or perform a wiggle test
- 6 Replace the current sensor if faulty
- 7 Repair or replace damaged wiring or connectors as needed

## Before replacing the phase W current sensor

- A high voltage on the current sensor circuit often results from a poor ground connection rather than a failed sensor, so check grounds first.
- The code can be set by a momentary glitch during harsh acceleration or regenerative braking, so clear it and test-drive to see if it returns.
- Wiring harness damage from road debris or rodent damage is a common cause that is frequently overlooked.
- The sensor may be integrated into the drive motor assembly, making replacement more involved than a simple plug-and-play part.
- A weak 12-volt battery or charging system fault can cause erratic sensor readings and set this code, so verify battery condition.

## Can I keep driving with P0BFC?

Driving with this code is not recommended because it can lead to reduced power or sudden loss of hybrid propulsion, increasing the risk of a crash. Have the vehicle inspected by a qualified technician as soon as possible and avoid high-load driving until repaired.

## Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Oscilloscope for signal analysis
- Wiring diagram for the specific vehicle
- Terminal test kit and back-probe pins



## Reading P0BFC

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

## Often seen with

**P0BFB** Drive Motor B Phase W Current Sensor Circuit Low · **P0BFD** Drive Motor A Phase U-V-W Current Sensor Correlation · **P0BFE** Drive Motor B Phase U-V-W Current Sensor Correlation · **P0BFF** Drive Motor A Current · **P0C00** Drive Motor A Current Low

## 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/p0bfc/>

