



P0BFF

Drive Motor A Current

P0BFF indicates that the powertrain control module has detected an abnormal current condition in the drive motor A circuit, which is the main traction motor in a hybrid or electric vehicle. The computer monitors current flow through the motor and its associated wiring, and it sets this code when the measured current falls outside the expected range for the operating conditions.

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

Symptoms you may notice

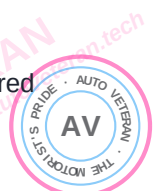
- Illumination of the check engine light or service vehicle soon message
- Reduced power or limp mode, limiting vehicle speed and acceleration
- The vehicle may refuse to start or shift into gear
- Intermittent stalling or sudden loss of propulsion while driving
- Audible whining or clicking from the motor area during acceleration
- Often no symptoms besides the warning light, especially if the fault is intermittent

Common causes, most likely first

- 1 Damaged or corroded wiring harness or connector at the drive motor A current sensor
- 2 Faulty current sensor integrated into the drive motor A assembly
- 3 Loose or degraded ground connection for the motor or inverter
- 4 Internal short or open circuit within the drive motor A windings
- 5 Failed inverter or power control module affecting current delivery
- 6 Software glitch in the powertrain control module requiring recalibration

How to diagnose and fix it

- 1 Perform a visual inspection of the drive motor A wiring, connectors, and grounds for damage or corrosion
- 2 Use a scan tool to retrieve freeze-frame data and check for related codes in other modules
- 3 Measure resistance and continuity of the motor current sensor circuit according to manufacturer specifications
- 4 Compare live current sensor readings with a known-good value or use an oscilloscope to verify signal integrity
- 5 Inspect and test the motor windings for shorts or opens using a multimeter and insulation tester
- 6 Repair or replace damaged wiring, connectors, or the current sensor as needed
- 7 Clear codes and perform a road test to verify the repair, reprogramming the control module if required



What a drive motor current code really means

- A P0BFF code often results from a poor connection at the motor current sensor rather than a failed motor, so always check connector pin tension and corrosion first.
- In many cases, the code is set by a momentary glitch in the current signal that does not affect driveability, and a simple recalibration or software update may resolve it.
- Technicians sometimes replace the entire drive motor when the actual fault is a chafed wire in the harness near the motor mount, so trace the circuit carefully before condemning the motor.
- This code can be triggered by a weak 12-volt battery or charging system issue that causes voltage drops affecting sensor readings, so verify battery health before deeper diagnostics.
- Related codes in the inverter or battery management system may accompany P0BFF, and addressing those first can prevent unnecessary motor replacement.

Can I keep driving with P0BFF?

If the check engine light is on and the vehicle drives normally, you may cautiously drive to a repair shop, but avoid heavy acceleration or long trips. If the vehicle enters limp mode or loses power, stop driving and have it towed to prevent safety risks.

Tools that help

- OBD-II scan tool with live data and graphing capabilities
- Digital multimeter with resistance and continuity functions
- Oscilloscope for signal analysis
- Insulation tester for motor winding checks
- Manufacturer-specific service information and wiring diagrams

Reading P0BFF

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

Often seen with

P0A0F Engine Failed to Start · **P0BFC** Drive Motor B Phase W Current Sensor Circuit High · **P0BFD** Drive Motor A Phase U-V-W Current Sensor Correlation · **P0BFE** Drive Motor B Phase U-V-W Current Sensor Correlation · **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/p0bff/>

