

GENERIC · POWERTRAIN

P0B11

OBD-II TROUBLE CODE

P0B11

Hybrid/EV Battery Pack Current Sensor B Circuit High

P0B11 means the hybrid or electric vehicle battery pack current sensor on circuit B is reporting a voltage above the normal range to the battery energy control module. The computer compares this signal against expected values and flags the circuit as high, which can prevent proper battery current measurement and disable hybrid operation.

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

Symptoms you may notice

- Illumination of the hybrid system warning light or check engine light
- Often no symptoms besides the warning light, especially if the fault is intermittent
- Reduced hybrid or electric propulsion power, possibly forcing the vehicle into limp mode
- Failure of the battery pack to accept or deliver current as expected, leading to poor fuel economy or reduced electric range
- In some cases, the vehicle may refuse to start or shift into gear due to safety interlocks
- Intermittent operation where the warning light clears after a key cycle but returns under load

Common causes, most likely first

- 1 A faulty battery pack current sensor B, including internal failure or contamination
- 2 Damaged or corroded wiring in the sensor B circuit, such as a short to voltage or an open ground
- 3 Loose, corroded, or backed-out terminals at the sensor or battery energy control module connector
- 4 A failed battery energy control module or a software calibration issue causing incorrect signal interpretation
- 5 High resistance in the sensor ground circuit, which can skew the voltage reading high
- 6 Physical damage to the sensor or harness from road debris, heat, or previous service work



How to diagnose and fix it

- 1 Retrieve all stored codes and freeze-frame data with a scan tool capable of reading hybrid battery parameters, then clear codes and verify whether P0B11 returns.
- 2 Visually inspect the current sensor B, its connector, and the wiring harness for damage, corrosion, or loose pins, repairing as needed.
- 3 Measure reference voltage and ground at the sensor connector with a digital multimeter, comparing to manufacturer specifications to rule out circuit faults.
- 4 Backprobe the sensor signal wire and observe the voltage with the key on and during a gentle load test, looking for a signal that stays above the normal range.
- 5 If the circuit checks out, substitute a known-good sensor or perform a resistance check on the sensor itself according to service information.
- 6 Check for technical service bulletins or software updates for the battery energy control module that address false current sensor codes.
- 7 After repairs, clear codes, perform any required battery current sensor calibration or learn procedure, and road test the vehicle to confirm the code does not return.

Current Sensor B High: What Techs Overlook

- A high signal on circuit B often results from a poor ground connection rather than a failed sensor, so always load-test the ground circuit before condemning parts.
- The battery energy control module may set this code intermittently due to voltage spikes from the hybrid battery system, which can mimic a sensor fault and lead to unnecessary replacement.
- Some vehicles require a current sensor calibration or battery learn procedure after any sensor or module replacement, and skipping it will cause the code to reset immediately.
- A weak or failing 12-volt auxiliary battery can cause erratic module behavior and set false current sensor codes on hybrid systems, so check it first.
- The code does not always mean the sensor is bad; a short to voltage on the signal wire from chafed harness insulation can produce the same high-voltage reading.

Can I keep driving with P0B11?

Do not continue driving with P0B11 set, because the hybrid system may disable battery current measurement and cause a sudden loss of propulsion or prevent the vehicle from starting. Have the vehicle towed to a qualified hybrid service facility for diagnosis.



Tools that help

- Hybrid-capable scan tool with live data and bidirectional controls
- Digital multimeter with backprobe pins
- Insulated hand tools and personal protective equipment for hybrid high-voltage safety
- Service information for wiring diagrams and sensor specifications
- Battery current sensor calibration or learn procedure access

Reading P0B11

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

Often seen with

P0A0D High Voltage System Interlock Circuit A High · **P0AFA** Hybrid/EV Battery System Voltage Low · **P0B10** Hybrid/EV Battery Pack Current Sensor B Circuit Low · **P0B12** Hybrid/EV Battery Pack Current Sensor B Circuit Intermittent · **P0B13** Hybrid/EV Battery Pack Current Sensor A/B Correlation

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/p0b11/>

