

GENERIC · POWERTRAIN

P0B79

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0B79

Hybrid/EV Battery Voltage Sense M Circuit Low

P0B79 indicates that the hybrid or electric vehicle battery pack's voltage sensing circuit, specifically the 'M' circuit, is reporting a voltage lower than the manufacturer's expected range to the battery energy control module. The computer has detected a low signal on this dedicated sensing line, which is used to monitor individual cell groups or modules within the high-voltage battery, and it sets this code to alert the driver and disable certain hybrid functions until repaired.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Professional

AREA

Hybrid propulsion

Symptoms you may notice

- Illumination of the check engine light or a dedicated hybrid system warning light on the dashboard.
- The vehicle may enter a reduced power mode, limiting acceleration or top speed.
- The hybrid system may be disabled entirely, forcing the vehicle to run on the internal combustion engine only, if equipped.
- A message indicating 'Hybrid System Fault' or 'Service Hybrid System' may appear on the driver information display.
- Often no symptoms besides the warning light, especially in early stages of the fault.
- Possible rough running or stalling if the battery management system cannot accurately balance cells, though this is less common.

Common causes, most likely first

- 1 A faulty voltage sensing wire or connector at the battery pack, including corrosion, chafing, or a loose terminal.
- 2 A failed cell voltage sensor module or battery monitoring unit that directly measures the 'M' circuit.
- 3 Internal failure within the high-voltage battery pack, such as a weak or shorted cell group affecting the sensed voltage.
- 4 Damage to the wiring harness between the battery pack and the battery energy control module, often due to rodent damage or physical impact.
- 5 A malfunctioning battery energy control module (BECM) that misinterprets the sensor signal.
- 6 High resistance in the sensing circuit ground connection, leading to a low voltage reading.
- 7 Water intrusion into the battery pack or connector causing signal degradation.



How to diagnose and fix it

- 1 Perform a visual inspection of the battery pack connectors and wiring for obvious damage, corrosion, or loose pins, and repair as needed.
- 2 Use a scan tool to retrieve all stored codes and freeze-frame data, then check for technical service bulletins (TSBs) specific to the vehicle make and model for known issues with the voltage sensing circuit.
- 3 Measure the resistance and voltage on the 'M' circuit sensing wire from the battery pack to the BECM, comparing to manufacturer specifications to identify opens or shorts.
- 4 Test the cell voltage sensor module or battery monitoring unit with a multimeter to verify it is outputting the correct voltage for the 'M' circuit, and replace if faulty.
- 5 Inspect the high-voltage battery pack for cell imbalance or weak modules using a battery diagnostic tool, and repair or replace the affected battery components if necessary.
- 6 Check the BECM for proper power and ground, and reflash or replace it only after all other circuits and sensors have been verified good.
- 7 Clear the codes and perform a road test to confirm the repair, ensuring the hybrid system operates normally and the code does not return.

Common Misdiagnosis Traps for P0B79

- A low voltage reading on the 'M' circuit is frequently caused by a poor ground connection at the battery pack rather than a failed sensor, so always check grounds before replacing components.
- The code can be set by a weak 12-volt auxiliary battery on some hybrid models, as low system voltage can cause erratic sensor readings; verify the 12-volt battery health first.
- Rodent damage to the sensing harness is a common cause that is often overlooked, especially in vehicles parked outdoors for extended periods.
- Replacing the battery pack assembly without first testing the sensing circuit can be an expensive mistake, as the fault may lie in a simple wiring repair.
- In some cases, a software calibration issue in the BECM may cause false low-voltage readings, so check for applicable software updates before condemning hardware.

Can I keep driving with P0B79?

It is generally safe to drive the vehicle with P0B79 set, but the hybrid system may be disabled or power reduced, so avoid long trips and heavy loads until diagnosed. Do not ignore the code, as continued driving with a faulty voltage sensing circuit can lead to further battery damage or a no-start condition.



Tools that help

- OBD-II scan tool with hybrid/EV capability
- Digital multimeter (DMM)
- Battery pack diagnostic software or tool
- Insulation tester (megohmmeter) for high-voltage circuits
- Wiring diagram and service information for the specific vehicle

Reading P0B79

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

Often seen with

P0A1F Battery Energy Control Module A Performance · **P0AFA** Hybrid/EV Battery System Voltage Low · **P0B78** Hybrid/EV Battery Voltage Sense M Circuit Range/Performance · **P0B7A** Hybrid/EV Battery Voltage Sense M Circuit High · **P0B7B** Hybrid/EV Battery Voltage Sense M Circuit Intermittent/Errat

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/p0b79/>

