



Service Bulletin

Bulletin No.: 22-NA-151

Date: January, 2023

TECHNICAL

Subject: DTC P0BBD Diagnosis and Repair

This bulletin replaces PIP5850E. Please discard PIP5850E.

Brand:	Model:	Model Year:		VIN:		Engine:	Transmission:
		from	to	from	to		
Chevrolet	Bolt EV	2017	2023	—	—	—	—
	Bolt EUV	2022	2023				

Involved Region or Country	North America, Brazil, GM Korea Company, Middle East
Condition	Some customers may comment on a Malfunction Indicator Lamp (MIL) illuminated and the Driver Information Center (DIC) displays "Propulsion Power is Reduced" and the battery will not charge above 30% State of Charge (SOC). These are the remedial actions taken by the vehicle after diagnostic P0BBD fails. Scan for DTCs and determine if P0BBD is present. If not, this bulletin does not apply.
Cause	There are some customer driving scenarios which may induce P0BBD without a true battery cell problem. Known cases occur at very low vehicles speeds and perhaps by applying the brake and accelerator at the same time. Other cases have been found to set during DC Fast Charging on certain models of chargers.
Correction	Follow the Service Procedure below to determine whether or not the customer or charger may have induced P0BBD. Product Engineering has developed a programming solution for the customer driving scenarios and the charging scenarios. Important: Not all instances of P0BBD will be induced by the customer or charger, some may require replacement of the battery pack.

Service Procedure

Important: Service agents must comply with all International, Federal, State, Provincial, and/or Local laws applicable to the activities it performs under this bulletin, including but not limited to handling, deploying, preparing, classifying, packaging, marking, labeling, and shipping dangerous goods. In the event of a conflict between the procedures set forth in this bulletin and the laws that apply to your dealership, you must follow those applicable laws.

Use GDS2 to observe the following data parameter:
Hybrid/Electric Vehicle Battery Pack Voltage Variation Exceeded Limit - Battery Cell

This parameter is available in GDS2 by navigating to:
Module Diagnosis —> K114B Hybrid/EV Powertrain Control Module 2 —> Data Display Folder —> Data Display Icon —> Voltage Data

High Voltage Inverter Voltage			Hybrid/EV Powertrain Control Module 2
Hybrid/Electric Vehicle Battery Pack Voltage Variation Exceeded Limit - Cell Battery Module Row 1			Hybrid/EV Powertrain Control Module 2
Hybrid/Electric Vehicle Battery Pack Voltage Variation Exceeded Limit - Cell Battery Module Row 2			Hybrid/EV Powertrain Control Module 2
Hybrid/Electric Vehicle Battery Pack Voltage Variation Exceeded Limit - Cell Battery Module Row 3			Hybrid/EV Powertrain Control Module 2
Hybrid/Electric Vehicle Battery Pack Voltage Variation Exceeded Limit - Cell Battery Module Row 4			Hybrid/EV Powertrain Control Module 2
Hybrid/Electric Vehicle Battery Pack Voltage Variation Exceeded Limit - Cell Battery Module Row 5			Hybrid/EV Powertrain Control Module 2
Hybrid/Electric Vehicle Battery Pack Voltage Variation Exceeded Limit - Battery Cell			Hybrid/EV Powertrain Control Module 2
Hybrid/Electric Vehicle Battery Pack Voltage Variation - Cell Battery Module Row 1			Hybrid/EV Powertrain Control Module 2
Hybrid/Electric Vehicle Battery Pack Voltage Variation - Cell Battery Module Row 2			Hybrid/EV Powertrain Control Module 2
Hybrid/Electric Vehicle Battery Pack Voltage Variation - Cell Battery Module Row 3			Hybrid/EV Powertrain Control Module 2
Hybrid/Electric Vehicle Battery Pack Voltage Variation - Cell Battery Module Row 4			Hybrid/EV Powertrain Control Module 2
Hybrid/Electric Vehicle Battery Pack Voltage Variation - Cell Battery Module Row 5			Hybrid/EV Powertrain Control Module 2

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1. If the parameter Hybrid/Electric Vehicle Battery Pack Voltage Variation Exceeded Limit — Battery Cell reads cell number 20, 40, 67, or 87, then it is suspected that the customer drives in a way that may set P0BBD or has set during DC Fast Charging without an actual battery cell problem. The K114B Hybrid/EV Powertrain Control Module 2 will need to be reprogrammed to solve this condition.
 - If field action N222369400, N212343881, N212343882, N212343883, N212345750, N222369401, N212345941, or N212345943 are open for the vehicle being repaired, perform the applicable field action, which includes programming of the HPCM2. If none of these field actions are open, refer to *K114B Hybrid/EV Powertrain Control Module 2: Programming and Setup* in SI.
 - Recent revisions to the HPCM2 software to include the DC Fast Charging solution are being released as follows:
 - 1.1. Model year 2019 – 11/7/2022
 - 1.2. Model Year 2022 and 2023 – 11/21/2022
 - 1.3. Model year 2020 and 2021 – 12/15/2022
 - 1.4. Model year 2017 and 2018 – 01/16/2023
 - Any HPCM2 programmed before these dates will need to be programmed again to receive the updated DC Fast Charge P0BBD solution.
- ⇒ This update does not affect any other aspect of DC Fast Charge operation.

- Important:** N212343881 or N212343882 must be closed for model year 2017-2019 vehicles, or the programming fix will not take effect. SPS will check to see whether the battery has been replaced.
2. If the value in GDS2 is any other cell number, then proceed with a pack replacement. If N212343881, N212345941, N212345943 or N212343882 is open, perform that field action. If those field actions are closed, follow the battery exchange bulletin **#19-NA-194**, bulletin PIC6449A, and the service procedure *Drive Motor Battery Replacement and Shipping Preparation* in SI.

Warranty Information

Important: For vehicles repaired with an open field action, use the labor code information from that field action.

For vehicles repaired under the EV Limited Component Warranty, use the following appropriate labor operation. Reference the Applicable Warranties section of Investigate Vehicle History (IVH) for coverage information. You may claim labor code 5080328 for the diagnosis of P0BBD in conjunction with either programming or pack replacement.

Labor Operation	Description	Labor Time
5080328	For diagnosing P0BBD using this bulletin (Can claim in conjunction with Field Action for P0BBD diagnosis)	0.3 hr
2810265	HPCM2 Reprogramming with SPS (Do not claim in conjunction w/field action, FA includes programming)	0.4 hr

Version	7
Modified	<p>Released July 25, 2022</p> <p>Revised August 12, 2022 – Updated the supersede statement, Model Years for Bolt EV, added the Bolt EUV model and updated Steps 1, 2 and Warranty Information.</p> <p>Revised August 30, 2022 – Updated the Important statement after Step 1.</p> <p>Revised September 20, 2022 – Updated the supersede statement, added the 2020–2021 Model Years to Bolt EV and added field action N212343883 under step 1.</p> <p>Revised October 07, 2022 – Added battery cell number 20 to list of cells affected in step 1.</p> <p>Revised December 13, 2022 – Added DC Fast Charge software release and procedure information.</p> <p>Revised January 25, 2023 – Added the 2023 Model Year and HPCM2 software release date for DC Fast Charging solution for the 2017 and 2018 Model Years.</p>

