# Service Bulletin

Bulletin No.: 22-NA-151
Date: March, 2024

# TECHNICAL

**Subject: DTC P0BBD Diagnosis and Repair**

**This Service Bulletin replaces PIP5850E. Please discard all versions of PIP5850.**

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

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| **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).<br>These are the remedial actions taken by the vehicle after diagnostic P0BBD fails.<br>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.<br>Known cases occur at very low vehicles speeds and perhaps by applying the brake and accelerator at the same time.<br>Other cases have been found to set during DC Fast Charging on certain models of chargers. |
| **Correction** | Product Engineering has developed a programming solution for the customer driving scenarios and the charging scenarios.<br>**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.**

1. Using the Investigate Vehicle History screen in GM Global Warranty Management system, determine if the field action N212343881, N212343882, N212345941, or N212345943 are applicable and CLOSED for the vehicle being repaired.
    - If field action N212343881, N212343882, N212345941, or N212345943 are closed for the vehicle being repaired, program the HPCM2. Refer to *K114B Hybrid/EV Powertrain Control Module 2: Programming and Setup* in SI.

**Important:** If a Service Programming System (SPS) message indicating the same software and calibrations are already present in the HPCM2, you must repair and/or replace the battery pack. Refer to DTC P0BBD procedure in service information (SI).

- The February 7, 2024 revision to the HPCM2 software is applicable to all Model Years.
- Any HPCM2 programmed before this date 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:** N212345941, N212345943, N212343881 or N212343882 must be closed or the programming fix will not take effect. SPS will check to see whether a recalled battery has been replaced.

2. If N212343881, N212345941, N212345943 or N212343882 is open/incomplete, perform that field action to replace the battery.

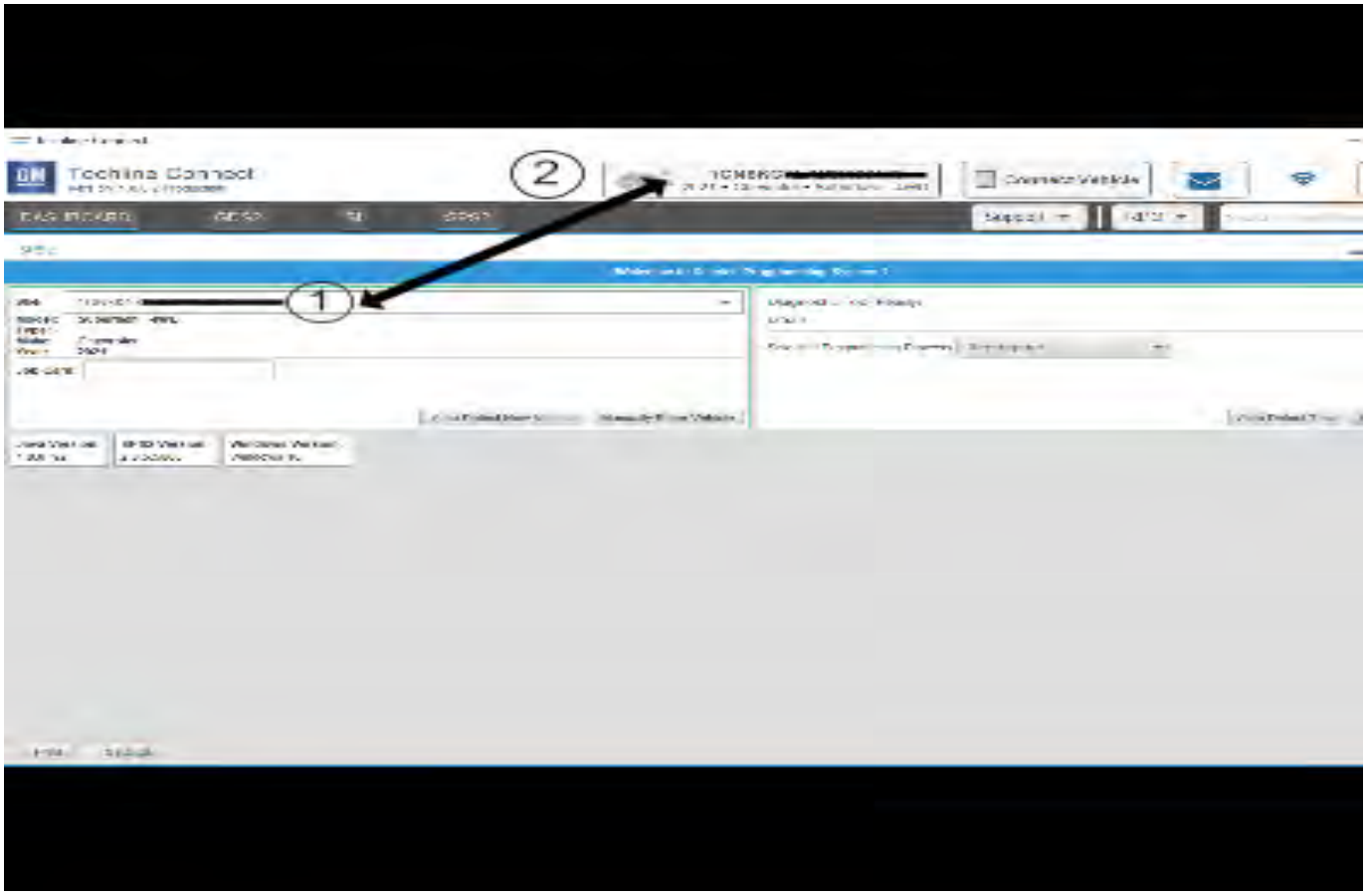
**Caution:** Before downloading the update files, be sure the computer is connected to the internet through a network cable (hardwired). DO NOT DOWNLOAD or install the files wirelessly. If there is an interruption during programming, programming failure or control module damage may occur.

- Ensure the programming tool is equipped with the latest software and is securely connected to the data link connector. If there is an interruption during programming, programming failure or control module damage may occur.
- Stable battery voltage is critical during programming. Any fluctuation, spiking, over voltage or loss of voltage will interrupt programming. Install a GM Authorized Programming Support Tool to maintain system voltage. Refer to www.gmdesolutions.com for further information. If not available, connect a fully charged 12V jumper or booster pack disconnected from the AC voltage supply. DO NOT connect a battery charger.
- Follow the on-screen prompts regarding ignition power mode, but ensure that anything that drains excessive power (exterior lights, HVAC blower motor, etc) is off.
- Please verify that the radio time and date are set correctly before inserting USB drive into vehicle for programming, **otherwise an error will result.**
- Clear DTCs after programming is complete. Clearing powertrain DTCs will set the Inspection/ Maintenance (I/M) system status indicators to NO.

**Important:** The service technician always needs to verify that the VIN displayed in the TLC left side drop down menu and the top center window match the VIN plate of the vehicle to be programmed prior to using Service Programming System 2 (SPS2) for programming or reprogramming a module.

- For the TLC application, service technicians need to always ensure that the power mode (ignition) is “ON” before reading the VIN from the vehicle’s VIN master module and that they do not select a VIN that is already in the TLC application memory from a previous vehicle.
- If the VIN that shows up in the TLC top center window after correctly reading the VIN from the vehicle does not match the VIN plate of the vehicle, manually type in the VIN characters from the vehicle VIN plate into the TLC top center window and use these for programming or reprogramming the subject module with the correct vehicle VIN and software and/or calibrations.
- The Engine Control Module (ECM) is the master module (for VIP vehicles) that TLC reads to determine the VIN of the vehicle. If the VIN read from the vehicle by TLC does not match the VIN plate of the vehicle, the ECM also needs to be reprogrammed with the correct VIN, software and calibrations that match the vehicle’s VIN plate.
- The Body Control Module (BCM) is the master module (for GEM vehicles) that TLC reads to determine the VIN of the vehicle. If the VIN read from the vehicle by TLC does not match the VIN plate of the vehicle, the BCM also needs to be reprogrammed with the correct VIN, software and calibrations that match the vehicle’s VIN plate.

**Caution:** Be sure the VIN selected in the drop down menu (1) is the same as the vehicle connected (2) before beginning programming.

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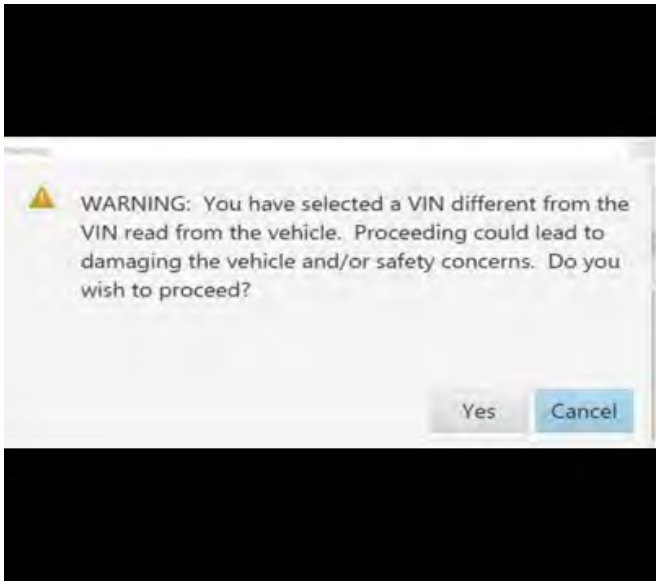
**Important:** If the vehicle VIN DOES NOT match, the message below will be shown.

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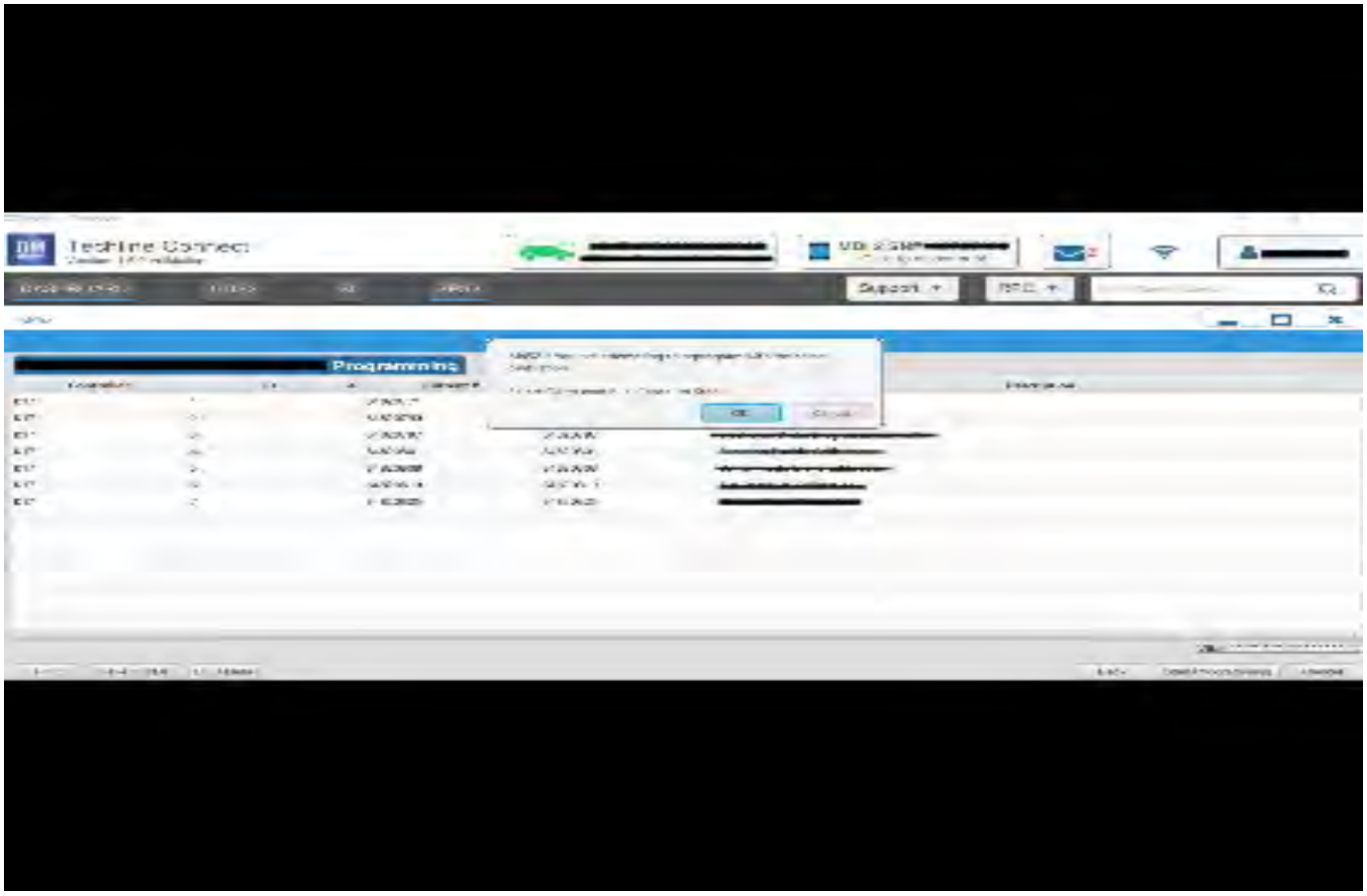


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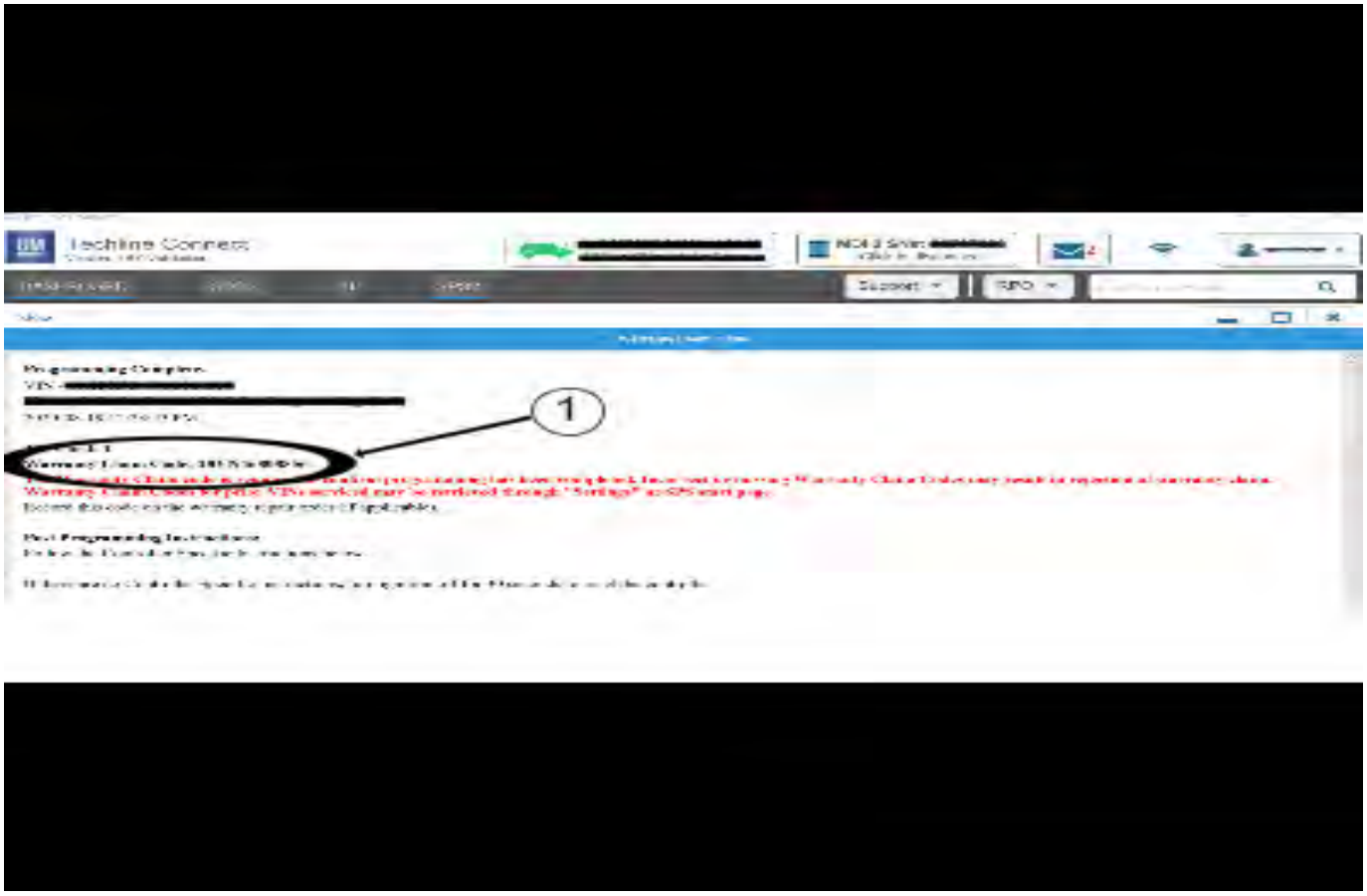
**Important:** Techline Connect screen shown above.

**Important:** If the same calibration/software warning is noted on the TLC Summary screen, select OK and follow screen instructions. After a successful programming event, the WCC is located in the Service Programming System dialogue box of the SPS Summary screen. Record the WCC on the job card. No further action is required. Refer to the Warranty Information section of this bulletin.

1. Program the HPCM2. Refer to *K114B Hybrid/EV Powertrain Control Module 2: Programming and Setup* in SI.

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**Note:** The screenshot above is an example of module programming and may not be indicative of the specific module that is being programmed. Module selection and VIN information have been blacked out.

**Important:** To avoid warranty transaction rejections, you MUST record the warranty claim code provided on the Warranty Claim Code (WCC) screen shown above on the job card. Refer to callout 1 above for the location of the WCC on the screen.

2. Record the SPS Warranty Claim Code on the job card for warranty transaction submission.

## 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 |
|---|---|---|
| 2886278* | HPCM2 Reprogramming with SPS (Do not claim in conjunction w/field action, FA includes programming) | 0.6 hr |
| *This is a unique Labor Operation for bulletin use only. | | |

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| **Version** | 9 |
| **Modified** | Released July 25, 2022<br>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.<br>Revised August 30, 2022 – Updated the Important statement after Step 1.<br>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.<br>Revised October 07, 2022 – Added battery cell number 20 to list of cells affected in step 1.<br>Revised December 13, 2022 – Added DC Fast Charge software release and procedure information.<br>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.<br>Revised February 15, 2024 – Revised the Correction and Service Procedure sections, added Programming Procedure, and replaced Labor Operations with a unique Labor Operation under Warranty Information.<br>Revised March 22, 2024 – Revised to update software release information under step 1 of the Service Procedure. |