# Product Safety Recall

## N202311731 High Voltage Battery May Melt or Burn

**Release Date:** July 2021 **Revision:** 02

**Revision Description:** This bulletin has been revised to include a state of charge change in the service procedure. Please discard all previous copies of bulletin N202311731.

**Attention:** It is a violation of Federal law for a dealer to deliver a new motor vehicle or any new or used item of motor vehicle equipment (including a tire) covered by this notification under a sale or lease until the defect or noncompliance is remedied.

ONLY EV Certified dealers can complete this repair.

This is a companion bulletin to recall N212343880. The final remedy for this condition will be communicated as part of recall N212343880.

VINs will display in both N202311731 and N212343880 in Global Warranty Management (GWM).

- If the vehicle is OPEN in IVH for N202311731, the updated service procedure described in that bulletin, including the replacement of the battery if it fails diagnostics and the manual setting of the vehicle's state of charge, must be performed as an interim remedy.
- If the vehicle is CLOSED in IVH for recall N202311731 (it has received the updated software **only**), the manual interim procedure of limiting the battery state of charge to 90% must be completed under recall N212343880.

**All involved vehicles that are in dealer inventory must be held and not delivered to customers, dealer traded, or used for demonstration purposes until the repair in this bulletin is completed.**

| Make | Model | Model Year | | RPO | Description |
|---|---|---|---|---|---|
| | | From | To | | |
| Chevrolet | Bolt EV | 2017 | 2019 | | |

Involved vehicles are marked "open" on the Investigate Vehicle History screen in GM Global Warranty Management system. This site should always be checked to confirm vehicle involvement prior to beginning any required inspections and/or repairs.

| | |
|---|---|
| **Condition** | General Motors has decided that a defect which relates to motor vehicle safety exists in certain 2017-2019 model year Chevrolet Bolt EV vehicles. A certain number of these vehicles were built with high voltage batteries produced at LG Chem's Ochang, Korea facility that may pose a risk of fire when charged to full, or very close to full, capacity. |
| **Correction** | Dealers will install diagnostic software, reduce battery state of charge to 90% capacity, inspect and if necessary, replace defective battery packs that fail current diagnostic procedures referenced in this bulletin, This is an interim repair until a final remedy is available under N212343880. |

### Parts

**NOTE**: Use the vehicle identification number (VIN) and the GM Electronic Parts Catalog (EPC) to determine which battery section or pack to order. Lithium Ion material is on part exchange in the US and Canada. For ordering instructions, use bulletin #18-NA-236 for modules and #19-NA-194 for packs as directed by TAC. For markets outside of US and Canada; the local TAC organization should be contacted for direction.

# Product Safety Recall

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**Warranty Information**

| Labor Operation | Description | Labor Time | Trans. Type | Net Item |
|---|---|---|---|---|
| 9105859* | EV Battery Parameter inspection, BCM Programming, HPCM 2 Programming, and verify State of Charge set at 90%<br>ADD: Test, Recharge 12 Volt Battery<br>ADD: Test and Replace 12 Volt Battery | 1.2<br>0.2<br>0.3 | | |
| 9105860* | Cell Battery Module Replacement (Includes EV Battery Parameter inspection, BCM Programming, HPCM 2 Programming, Smoke Test) , and verify State of Charge set at 90%<br>Row 1<br>Row 2<br>Row 3<br>Row 4<br>Row 5<br>ADD: Test, Recharge 12 Volt Battery<br>ADD: Test and Replace 12 Volt Battery | <br><br><br>6.5<br>6.2<br>6.9<br>7.3<br>6.6<br>0.2<br>0.3 | ZFAT | ** |
| 9105861* | Drive Motor Battery Replacement and Shipping Preparation (Includes EV Battery Parameter inspection, BCM Programming, HPCM 2 Programming) , and verify State of Charge set at 90%<br>ADD: Test, Recharge 12 Volt Battery<br>ADD: Test and Replace 12 Volt Battery | 4.4<br><br>0.2<br>0.3 | | |
| 9105719 | Floor Plan Reimbursement – NEW INVENTORY ONLY | N/A | ZFAT | *** |
| 9105704 | Working Capital Assistance Program Reimbursement – USED INVENTORY ONLY | | | **** |

**IMPORTANT:** * GM will provide reimbursement to the dealership for providing the service of picking up and returning a customer's vehicle while the repair for this safety recall is completed. It must be noted on the job card that this service was provided. Reimbursement is limited to $7.50 each way ($15 maximum per job card), and is to be submitted in the Net/Shuttle field of the Field Action transaction.

**IMPORTANT:** Stable 12 Volt vehicle power is required for this inspection/evaluation. If the vehicle required a jump start to get it into the shop or is displaying weak 12 Volt performance, refer to TSB #20-NA-132 for battery testing and warranty replacement requirements.

**NOTE:** Most vehicles involved will only require a programming update but there is a slight chance that a high voltage battery pack repair/replacement will be required. Advise waiting customers prior to starting that the time required will likely be about an hour but could require longer if parts replacement is required.

**NOTE:** It is recommended dealers assure their EV Battery Depowering Tool (EL-50332) has the most recent software update. Software updates are available from Special Tools and Software Updates accessed through GlobalConnect.

**IMPORTANT:** ** To avoid warranty transaction rejections, carefully read and follow the instructions below:

- The Warranty Claim Code must be accurately entered in the "Warranty Claim Code" field of the transaction.
- When more than one Warranty Claim Code is generated for a programming event, it is required to document all Warranty Claim Codes in the "Correction" field on the job card. Dealers must also enter one of the codes in the "Warranty Claim Code field of the transaction, otherwise the transaction will reject. It is best practice to enter the FINAL code provided by SPS/SPS2.

**Warranty Claim Code Information Retrieval**

If the Warranty Claim Code was not recorded on the Job Card, the code can be retrieved in the SPS system as follows:

1. Open TLC/TIS on the computer used to program the vehicle.
2. Select and start SPS/SPS2.
3. Select Settings.
4. Select the Warranty Claim Code tab.

The VIN, Warranty Claim Code and Date/Time will be listed on a roster of recent programming events. If the code is retrievable, dealers should resubmit the transaction making sure to include the code in the SPS Warranty Claim Code field.

**Floor Plan Reimbursement – NEW INVENTORY ONLY**

*** **USA & Canada Only** – For vehicles eligible for floor plan reimbursement, the amount should be submitted in Net Item/Miscellaneous. This amount should represent the product of the vehicle's average daily interest rate (see table below) multiplied by the actual number of days the vehicle was in dealer inventory and not available for sale. This reimbursement is limited to the number of days from the date of the stop delivery message November 13, 2020 to the date the repair is completed, and the vehicle is ready for sale (not to exceed 196 days):

| Vehicle | Floor Plan Reimbursement Amount | |
|---|---|---|
| | USA | Canada |
| 2019 Chevrolet Bolt EV | $4.78 | $6.58 |

**Working Capital Assistance Program (WCAP) Reimbursement – USED INVENTORY ONLY**

**NOTE**: **USA & Canada Only** - To avoid having to "H" route the WCAP transaction for approval, it must be submitted prior to the repair transaction.

**IMPORTANT**: **The WCAP ZSET transaction labor code, 9800059, provided in the dealer message sent on November 27, 2020, must have been submitted prior to the submittal of the ZFAT transaction labor code or the claim will reject.**

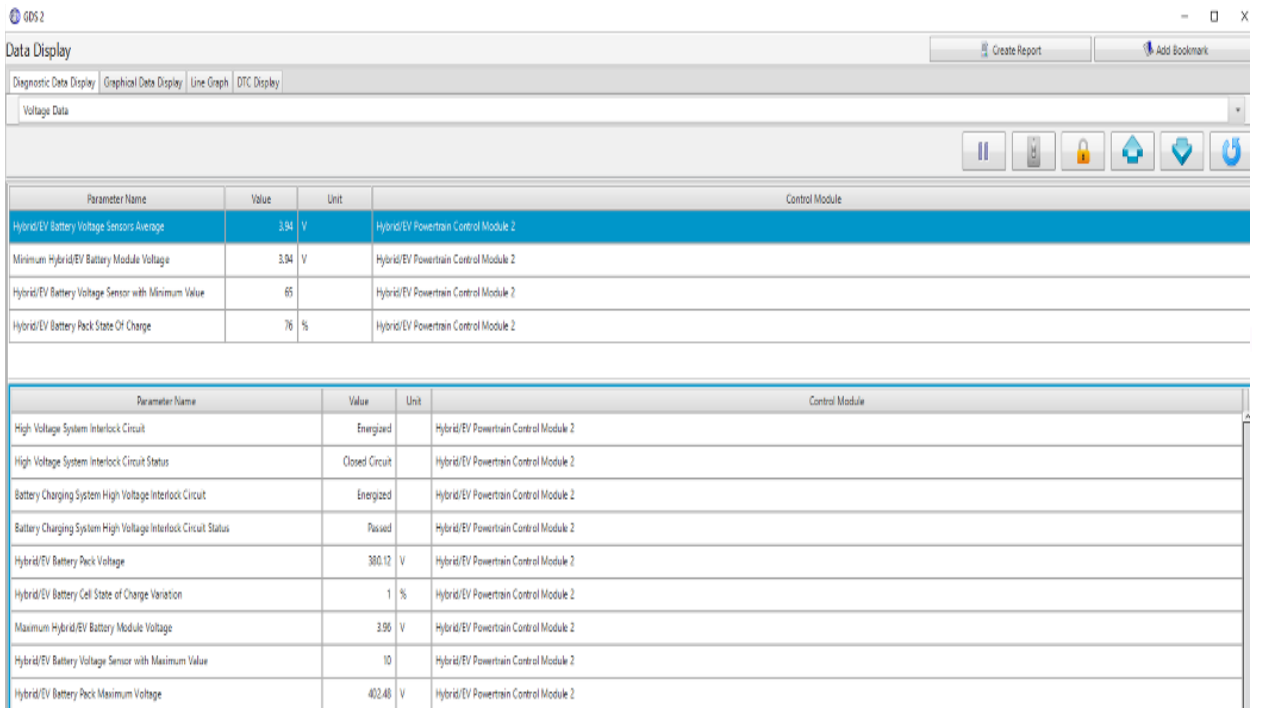
**** **USA & Canada Dealers Only -** For vehicles eligible under the Working Capital Assistance Program, the amount should be submitted in Net Item/Miscellaneous. This amount has been calculated to a daily value for the days that the vehicle was in used dealer inventory and not available for sale. This reimbursement is limited to the number of days from the date of the stop sale/stop delivery order November 13, 2020 to the date the inspection or repair closed the recall bulletin. (not to exceed 196 days).

| Vehicle | Working Capital Assistance Reimbursement Amount | |
|---|---|---|
| | USA | Canada |
| 2017 Chevrolet Bolt EV | $6.91 | $11.63 |
| 2018 Chevrolet Bolt EV | $7.79 | $12.56 |
| 2019 Chevrolet Bolt EV | $8.60 | $13.92 |

**Service Procedure**

- Do not plug-in charge the vehicle or perform aggressive acceleration and/or braking maneuvers just prior to performing the GDS2 parameter inspection procedure.
- Do not clear DTC Information before GDS2 parameter inspection procedure.
- Do not program any control module until instructed to do so.

**Procedure 1 GDS2 Parameter Inspection**

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1. The vehicle must have a properly charged 12V battery before continuing. If the vehicle has been dormant and/or required a 12V jump start, perform a 12V battery inspection and charge or replace the 12V battery before continuing. Refer to *Battery Inspection/Test* in SI.
2. Perform a vehicle diagnostic system check prior to using this diagnostic procedure. Refer to *Diagnostic System Check – Vehicle* in SI.
   - If any Powertrain DTCs (Pxxxx) are set, store any Freeze Frame/Failure Records and go to *Diagnostic Trouble Code (DTC) List – Vehicle* in Si. Return to this procedure after DTC repair.
   - If no DTCs are set, go to Step 3.
3. Vehicle ON, use GDS2 to view the following data screens while connected to the vehicle:
   - From Module Diagnostics, select Hybrid Powertrain Control Module 2.
   - Data Display Folder
   - Data Display Icon
   - Voltage Data
   - Observe and record the parameters

   **Hybrid/EV Battery Voltage Sensors Average and Minimum Hybrid/EV Battery Module Voltage.**

   ***Hybrid/EV Battery Voltage Sensors Average*** (Value A) :_____

   ***Minimum Hybrid/EV Battery Module Voltage*** (Value B) :_____

4. Subtract the minimum voltage from the average voltage.

   ***Value A – Value B*** : _____

   - If the voltage difference is less than or equal to 0.08V, proceed directly to ***Procedure 3****: Software Flashing Procedure*.
   - If the voltage difference is greater than 0.08V, Observe and record the value of parameter ***Hybrid/EV Battery Voltage Sensor with Minimum Voltage*** and ***Hybrid/EV Battery Pack State of Charge*** and proceed to Step 5.

     ***Hybrid/EV Battery Voltage Sensor with Minimum Voltage*** (Value C):_____

     ***Hybrid/EV Battery Pack State of Charge*** (Value D):_____

5. Observe the battery pack state of charge parameter (Value D), is the SOC 30% or greater?
   - If the battery pack SOC is less than 30%:
     1. Plug in Charge the battery pack to between 30 to 50% (do NOT charge the battery pack to full at this time).
     2. Remove the charge cord and allow the battery to rest (vehicle OFF) for 30 minutes.
     3. Return to step 1 of *Procedure 1: GDS2 Parameter Inspection Procedure*.
   - If the battery pack SOC is greater than 30%, proceed to step 6.
6. **FOR MARKETS WITH CELL MODULE REPLACEMENT CAPABILITIES (Including US, Canada, and South Korea):** There is at least one battery cell module row that requires replacement. Advise the customer and coordinate rental vehicle, transportation home, etc. as required. Most vehicles will only require a single cell battery module section/row. To determine if an additional cell battery module section/row or if the entire battery pack assembly requires replacement proceed to *Procedure 2: Multiple Cell Group Identification Procedure.*
7. **FOR MARKETS WITHOUT CELL MODULE REPLACEMENT CAPABILITIES: Advise the customer that an entire replacement battery pack will need to be ordered to service their vehicle. Do not update the HPCM2 with the latest calibration until the pack is replaced.** Provide the customer with a courtesy loaner vehicle until the repair can be performed. While the vehicle is at the dealership awaiting repair: If the vehicle does not already contain interim remedy and has failed the inspection, it should not be driven or charged. The interim remedy is no longer available to apply to the vehicle.

**Procedure 2 Multiple Cell Group Identification Procedure**

1. Vehicle ON, use GDS2 to view the following data screens while connected to the vehicle:
   - From Module Diagnostics, select K16 Battery Energy Control Module
   - Data Display Icon
   - Voltage Data 1, Voltage Data 2, and then Voltage Data 3
   - From Identification Information Folder, select the Identification Information Icon.

**NOTE:** For emailing GDS2 session logs in the US, contact TACsnapshot@GM.Com, In Canada, contact TACsnapshotcanada@GM.Com. All other regions must use their established local technical support center.

2. Start a GM TAC case for the vehicle. Email the GDS2 session log from the vehicle to GM TAC. Refer to the latest version of PIP4902 for assistance in creating and emailing a session log.
3. TAC will compare the data from the session log and advise which battery section(s) to replace. In some cases, TAC may advise that the entire pack should be replaced due to multiple cells with low voltage.
4. Replace the identified cell battery module. Refer to *Cell Battery Module Replacement* (Row 1-5) in SI.
5. After repair proceed to *Procedure 3: Software Flashing Procedure.*

**NOTE:** While waiting for a replacement battery cell module row to arrive, do not charge the vehicle or drive more than a half mile. Follow bulletin #18-NA-236 for module ordering instructions.

**IMPORTANT:** Do not flash any software before repairs are completed. Keep state of charge at or below 90%.

**Procedure 3 Software Flashing Procedure**

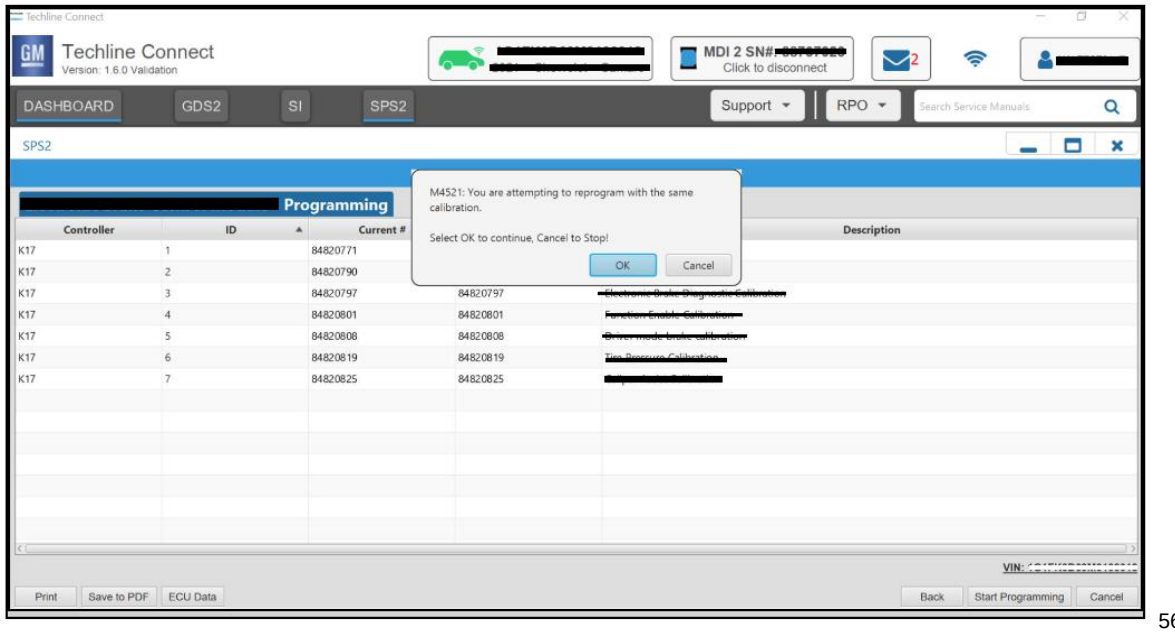
This update will perform the following:

- Hybrid/EV Powertrain Control Module 2
  - Revise existing Hybrid/EV Battery Circuit Performance DTCs P0B3C, P0B41, etc.
  - Implement new DTCs P0BBD.
  - Implement new GDS2 parameters to support DTCs P0BBD.
  - Restore maximum battery pack charging to 100% capability.
- Body Control Module
- Coordinated change to implement thermal propagation warning feature.

**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.

**Note:** Carefully read and follow the instructions below.

- 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 12 V jumper or booster pack disconnected from the AC voltage supply. DO NOT connect a battery charger.
- Turn OFF or disable systems that may put a load on the vehicle battery such as: interior lights, exterior lights (including daytime running lights) HVAC etc.
- Clear DTCs after programming is complete. Clearing powertrain DTCs will set the Inspection/Maintenance (I/M) system status indicators to NO.

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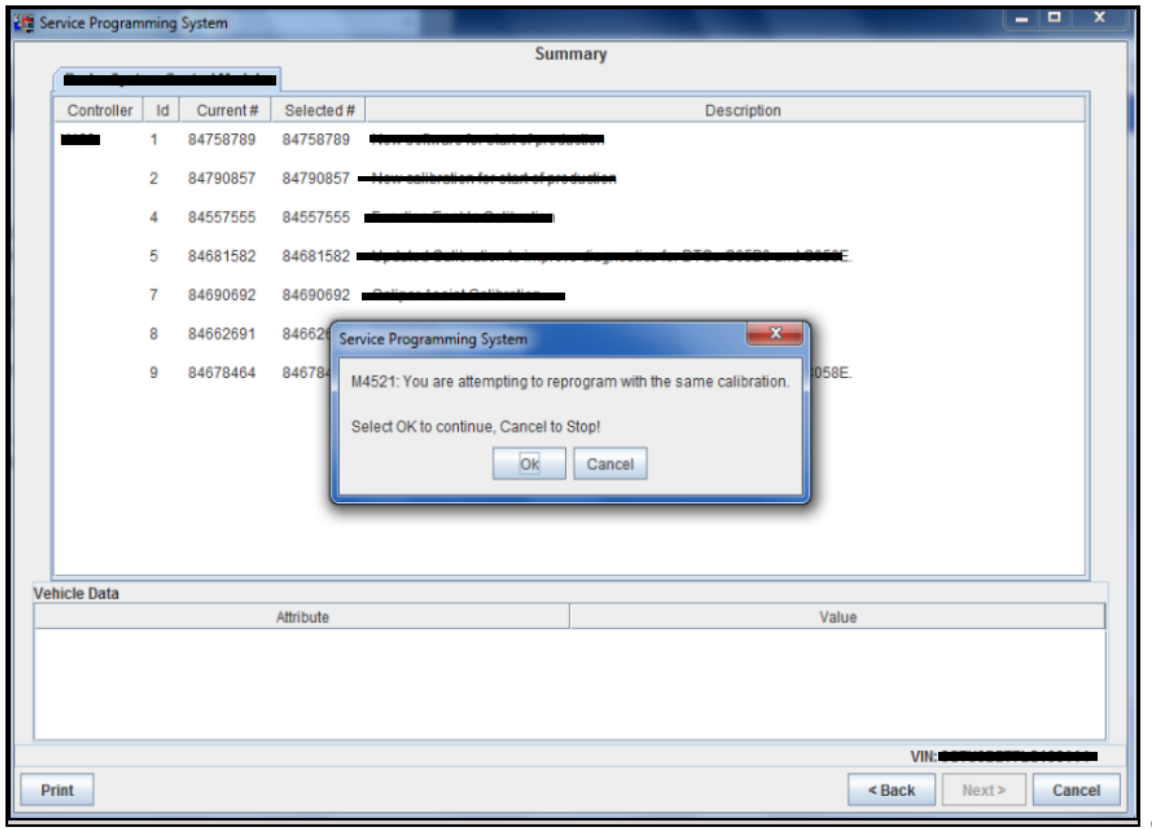


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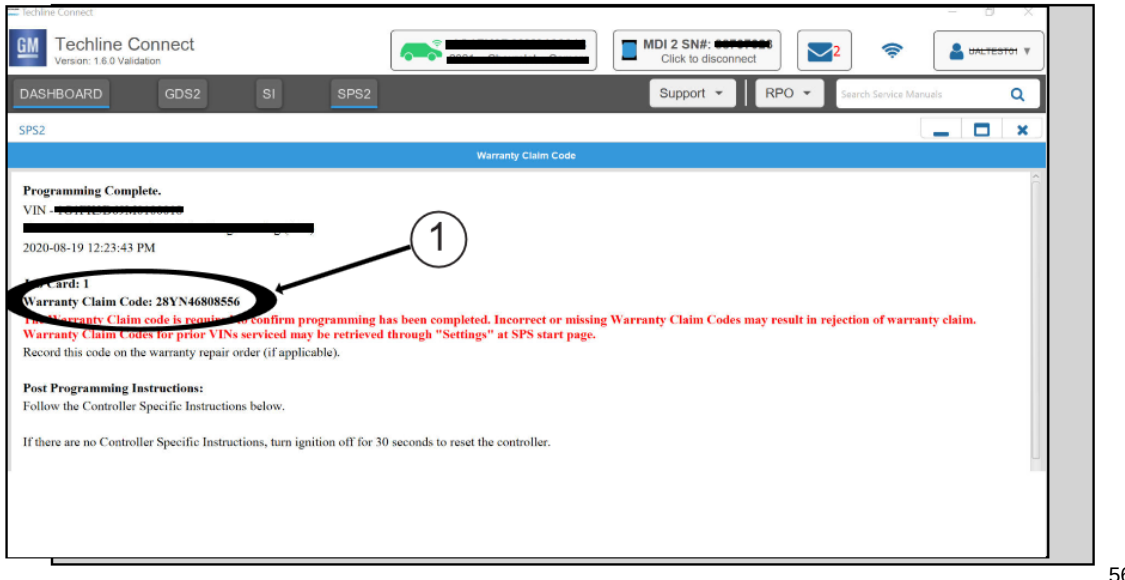
**Important:** Techline Connect and TIS2WEB screens shown above.

**Important:** If the same calibration/software warning is noted on the TLC or SPS 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. No further action is required. Refer to the Warranty section of the bulletin.

1. Reprogram the K114B Hybrid/EV Powertrain Control Module 2. Refer to *K114B Hybrid/EV Powertrain Control Module 2: Programming and Setup* in SI.
2. Reprogram the K9 Body Control Module. Refer to *K9 Body Control Module Programming and Setup* in SI.

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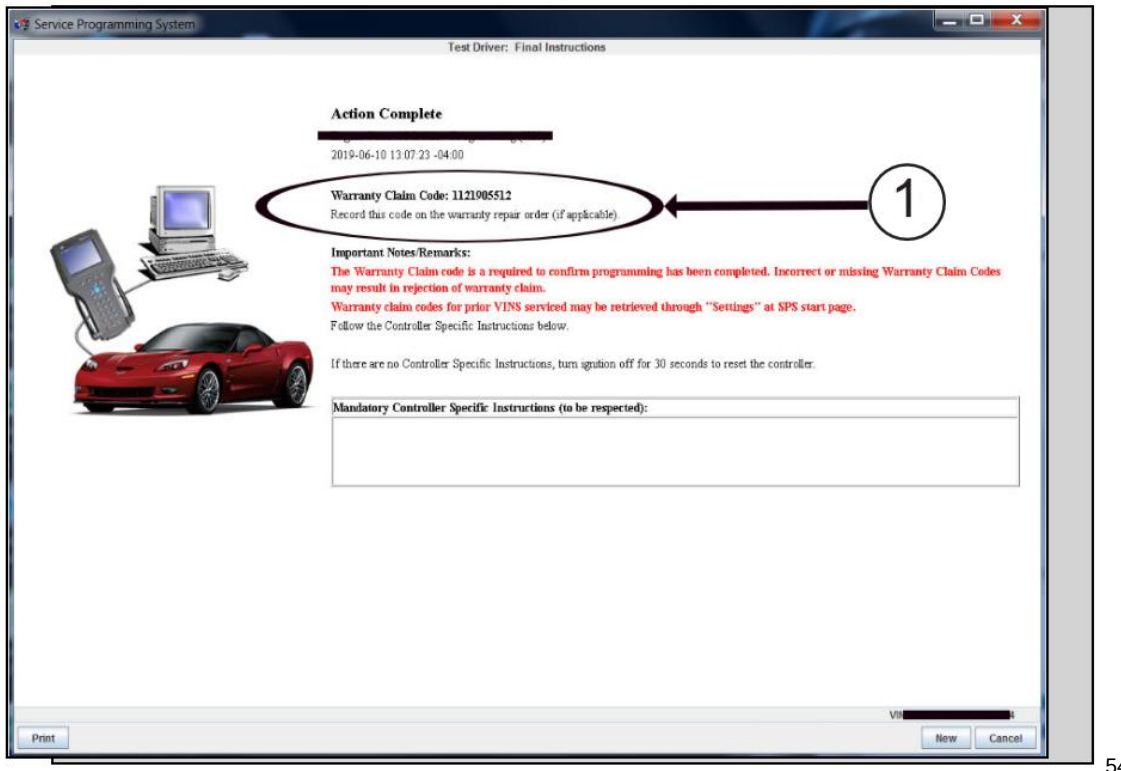


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**Note:** The screenshots above are an example of module programming and may not be indicative of the specific module that is being programmed. Module selection and VIN information have been blacked out.

**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.

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

**Prior to returning the vehicle to the customer**:

1. Vehicle ON, perform the Diagnostic System Check – Vehicle.
   - If any DTCs are set, store any Freeze Frame/Failure Records and go to Diagnostic Trouble Code (DTC) List – Vehicle in Si. Return to this procedure after DTC repair.
   - If no DTCs are set, go to Step 2.
2. Vehicle ON, use GDS2 to view Specific DTC status:
   - From Module Diagnostics, select Hybrid Powertrain Control Module 2.
   - Select Diagnostic Trouble Codes folder
   - Select Specific DTC
   - Ensure the following DTC has Ran and Passed this ignition: DTC P0BBD.
   - If the DTC has ran and passed proceed to Step 3
   - If the DTC has NOT Run this ignition cycle, plug-in charge the vehicle and ensure battery pack state of charge is 30% or greater and repeat this step.
   - If the DTC has failed go to Diagnostic Trouble Code (DTC) List – Vehicle
   - If DTC P0BBD is not supported an error has occurred during programming, repeat *Procedure 3: Software Flashing Procedure.*
3. For 2017/2018 vehicles:
   3.1. Enable Hill Top Reserve.
   3.2. To view and change the Energy Settings, touch Energy, and then touch Energy Settings. Use the arrows to scroll through the list.
   3.2. Set Hill Top Reserve to On.

**Important: Charge level must be set to 90% for model year 2019.**

4. For 2019 vehicles:
   4.1. Set Target Charge Level to 90%.
   4.2. To view the current charge mode status in the infotainment display, touch Energy and then touch Charging.

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   4.3. Touch the Target Charge Level tab on the Charging screen.

   4.4. Touch *–*(minus) to decrease the charge level to 90%, which is the level the green triangle indicates above.

5. If the customer is not waiting, plug-in charge the vehicle and ensure battery pack state of charge is 80% or greater. 80% state of charge is represented when 3 bars remain unlit on the vehicle instrument panel gauge display. You may use Level 1, Level 2 or DC fast charging (note: After programming, the vehicle must be driven at vehicle speeds greater than 3 km/h (2 mph) to enable DC fast charging).

**Dealer Responsibility** – For USA & Export (USA States, Territories, and Possessions)

It is a violation of Federal law for a dealer to deliver a new motor vehicle or any new or used item of motor vehicle equipment (including a tire) covered by this notification under a sale or lease until the defect or noncompliance is remedied.

The US National Traffic and Motor Vehicle Safety Act provides that each vehicle that is subject to a recall of this type must be adequately repaired within a reasonable time after the customer has tendered it for repair. A failure to repair within sixty days after tender of a vehicle is prima facie evidence of failure to repair within a reasonable time. If the condition is not adequately repaired within a reasonable time, the customer may be entitled to an identical or reasonably equivalent vehicle at no charge or to a refund of the purchase price less a reasonable allowance for depreciation. To avoid having to provide these burdensome remedies, every effort must be made to promptly schedule an appointment with each customer and to repair their vehicle as soon as possible. In the recall notification letters, customers are told how to contact the US National Highway Traffic Safety Administration if the recall is not completed within a reasonable time.

**Dealer Responsibility** – All

All new, used, GM Certified Used, courtesy transportation vehicles, dealer shuttle vehicles, etc. in dealers' possession and subject to this recall must be held and inspected/repaired per the service procedure of this bulletin before customers take possession of these vehicles. Involved vehicles must be held and not delivered to customers, dealer-traded, released to auction, used for demonstration, or any other purpose.

All GM Certified Used vehicles currently in the dealers' inventory within the Certified Pre-Owned Inventory System (CPOIS) will be de-certified and must be held and remedied per the service procedure in this bulletin. Upon submitting an accepted/paid warranty transaction in the Global Warranty Management (GWM) system, the vehicle can be re-certified for sale within the CPOIS system, or once again be used in the CTP program.

Dealers are to service all vehicles subject to this recall at no charge to customers, regardless of mileage, age of vehicle, or ownership, from this time forward.

Customers who have recently purchased vehicles sold from your vehicle inventory, and for which there is no customer information indicated on the dealer listing, are to be contacted by the dealer. Arrangements are to be made to make the required correction according to the instructions contained in this bulletin. A copy of the customer letter is provided in this

bulletin for your use in contacting customers. Recall follow-up cards should not be used for this purpose, since the customer may not as yet have received the notification letter.

In summary, whenever a vehicle subject to this field action enters your vehicle inventory you must take the steps necessary to ensure the program correction has been made before selling the vehicle. In addition, for vehicles entering your facility for service, you are required to ensure the customer is aware of the open field action and make every reasonable effort to implement the program correction as set forth in this bulletin prior to releasing the vehicle.

**Dealer Reports**

For dealers with involved vehicles, a listing has been prepared and will be available through GM GlobalConnect Maxis Field Action Reports or sent directly to export dealers. The Inventory tab of the dealer reports will contain VINs that apply to this recall. This information is intended to assist dealers with the **PROMPT COMPLETION** of these vehicles. The Customer In-Service tab will contain customer names and addresses from Motor Vehicle Registration Records. The use of such motor vehicle registration data for any purpose other than follow-up necessary to complete this recall may be a violation of law in several states.

**Courtesy Transportation** – For USA & Canada

Courtesy transportation is available for customers whose vehicles are involved in this safety recall.

**Customer Notification**

USA & Canada - General Motors will notify customers of this recall on their vehicle (see copy of customer letter included with this bulletin).

Export - Letters will be sent to known owners of record located within areas covered by the US National Traffic and Motor Vehicle Safety Act. For owners outside these areas, dealers should notify customers using the attached sample letter.