

GLOBAL SAFETY FIELD INVESTIGATIONS  
DCS6453  
URGENT - DISTRIBUTE IMMEDIATELY

Date: February 17, 2023

Subject: REVISION: N212355140-01 – Service Update  
Diesel Engine Control Module Diagnostics  
Updated Warranty Period, Title, and Condition Statement

Models: 2021-2022 Cadillac Escalade, Escalade ESV  
2021-2022 Chevrolet Suburban  
2021-2022 Chevrolet Tahoe  
2021-2022 GMC Yukon, Yukon XL  
Equipped with 6-cylinder, 3.0L Diesel engine (RPO LM2)

To: All General Motors Dealers

This bulletin has been revised to update the warranty period, the title of the bulletin, and the condition statement. Please discard all previous copies of bulletin N212355140.

END OF MESSAGE  
GLOBAL SAFETY FIELD INVESTIGATIONS

# Service Update

## N212355140 Diesel Engine Control Module Diagnostics



**Release Date:** February 2023

**Revision:** 01

**Revision Description:** This bulletin has been revised to update the warranty period, the title of the bulletin, and the condition statement. Please discard all previous copies of bulletin N212355140.

<b>Attention:</b>	<p>This service update includes vehicles in dealer inventory and customer vehicles that return to the dealership for any reason. This bulletin will expire at the end of the involved vehicle's Emission Select Component Limited Warranty period.</p> <p>Involved vehicles will be repaired either through dealer repairs as described in this bulletin or through over the air (OTA) programming. Dealers can and should perform the procedure in this bulletin on any vehicle with an "open" status on the Investigate Vehicle History (IVH) screen in GM Global Warranty Management system. Due to the fact that vehicles will be closed in IVH through successful OTA programming, <u>dealers should always check the status in IVH before performing any vehicle repairs.</u></p>
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Make	Model	Model Year		RPO	Description
		From	To		
Cadillac	Escalade, Escalade ESV	2021	2022	LM2	6-cylinder, 3.0L Diesel engine
Chevrolet	Suburban				
Chevrolet	Tahoe				
GMC	Yukon, Yukon XL				

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.

<b>Condition</b>	Certain 2021 and 2022 model year Cadillac Escalade, Escalade ESV, Chevrolet Suburban, Chevrolet Tahoe and GMC Yukon, Yukon XL vehicles, equipped with the 6-cylinder, 3.0L diesel engine (RPO LM2), may have a condition where the engine control module calibrations can be enhanced to improve the accuracy of certain diagnostic tests.
<b>Correction</b>	Dealers are to reprogram the engine control module.

### Parts

No parts are required for this repair.

### Warranty Information

Labor Operation	Description	Labor Time	Trans. Type	Net Item
9106513*	Verified Module Software or Calibration Level: Module Is Programmed with Same Level Software or Calibration	0.2	ZFAT	N/A
9106514*	Engine Control Module Reprogramming with SPS	0.4		

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

Labour Time [\[Top\]](#)

Labour Operation Code:

Additional labour op code information:

SPS Warranty Claim Code:

6125814

- The Warranty Claim Code from the programming event must be accurately entered in the "Warranty Claim Code" field of the transaction.

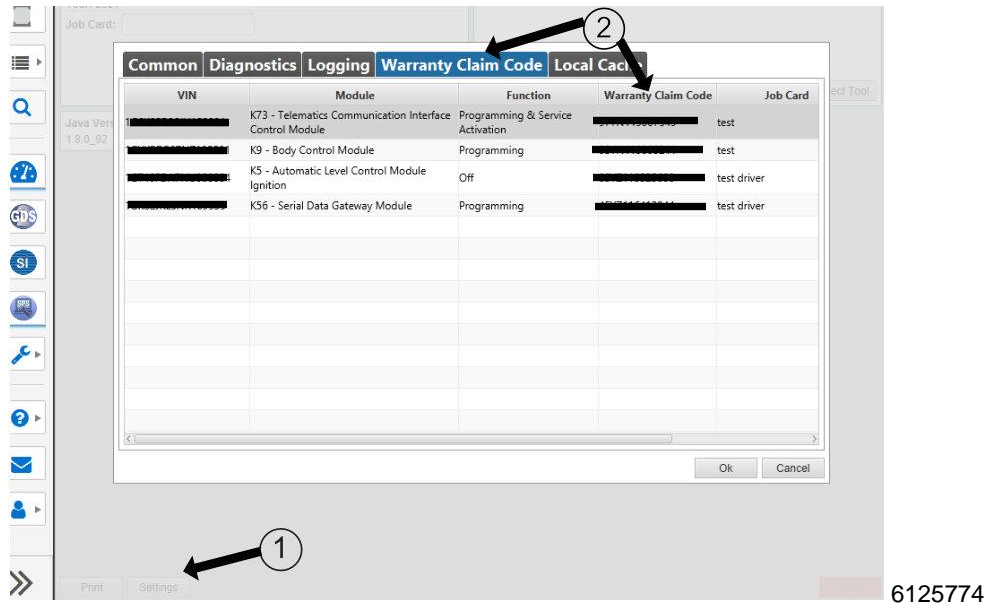
# Service Update

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- 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 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 SPS2 system as follows:

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

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.

### Service Procedure

**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](http://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.
- Clear DTCs after programming is complete. Clearing powertrain DTCs will set the Inspection/Maintenance (I/M) system status indicators to NO.

# Service Update

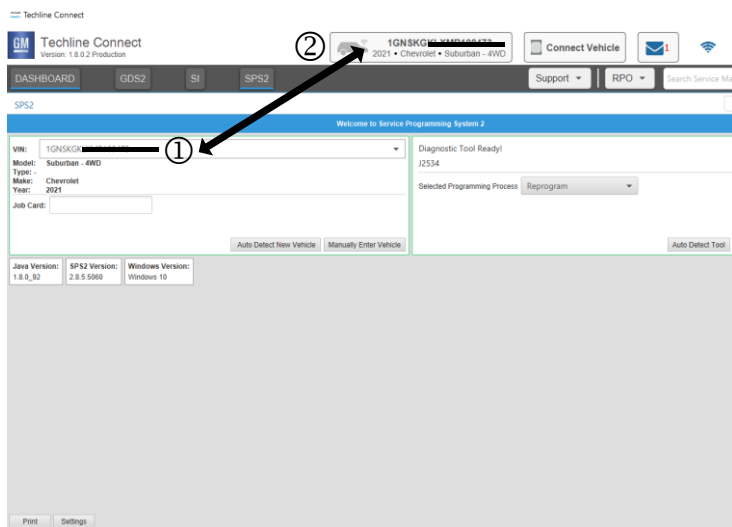
## N212355140 Diesel Engine Control Module Diagnostics



**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.

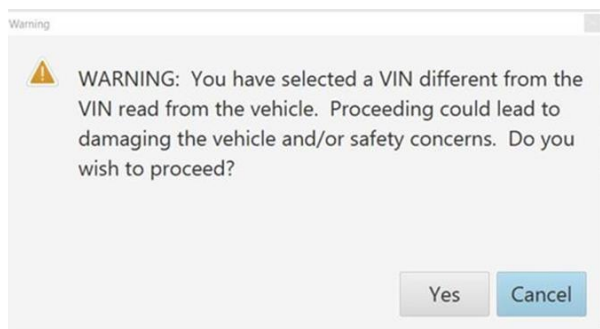
- For the TLC application, service technicians need to always ensure that the power mode (ignition) is “ON” before reading the VIN from the vehicle’s VIN master module and that they do not select a VIN that is already in the TLC application memory from a previous vehicle.
- If the VIN that shows up in 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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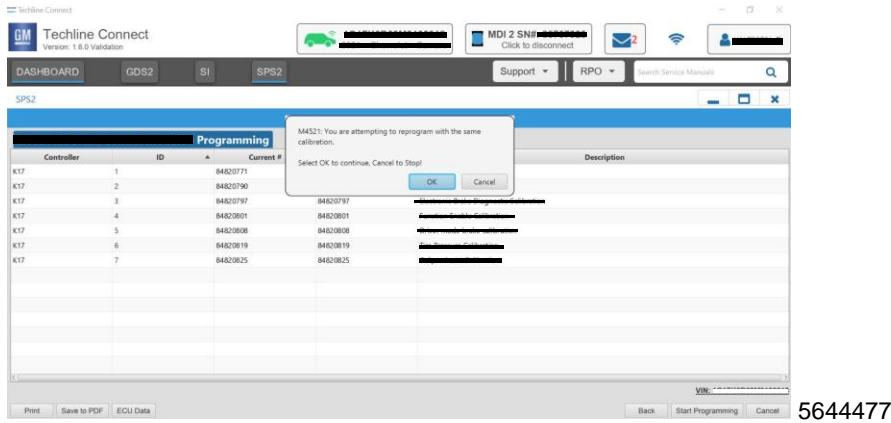
**Important:** If the vehicle VIN DOES NOT match, the message below will be shown.



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# Service Update

## N212355140 Diesel Engine Control Module Diagnostics

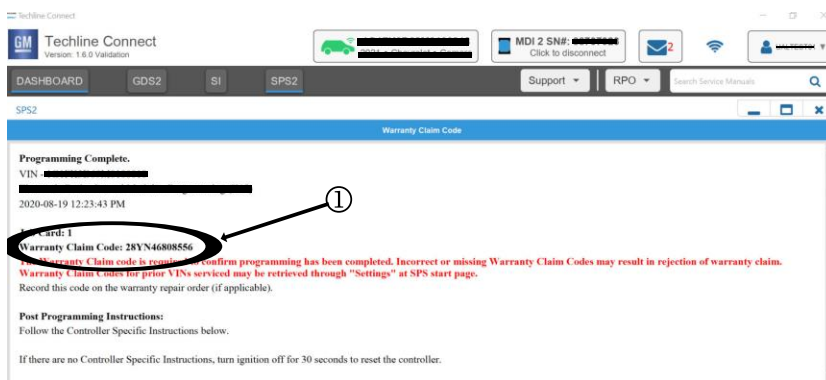


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**Important:** Techline Connect screens shown above.

**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. No further action is required. Refer to the Warranty section of the bulletin.

1. Reprogram the Engine Control Module. Refer to *K20 Engine Control Module: 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 SPS Warranty Claim Code on job card for warranty transaction submission.

### Dealer Responsibility

Whenever a vehicle subject to this service update enters your vehicle inventory, or is in your facility for service in the future, and the vehicle is still covered under the Emission Limited Warranty, you must take the steps necessary to be sure the service update correction has been made before selling or releasing the vehicle.

All new, used, GM Certified Used, courtesy transportation vehicles, dealer shuttle vehicles, etc. in dealers' possession and subject to this bulletin **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.

## Service Update

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#### Dealer Reports – For USA & Export

The Inventory tab of the Open Vehicle Report will contain Service Update Bulletin VINs that apply to this field action. This information is intended to assist dealers with the **PROMPT COMPLETION** of these vehicles. The Customer In-Service tab will not contain Service Update Bulletin VIN data because the intent of a Service Update Bulletin is to not inconvenience a customer with a special trip for service. Service Update Bulletins are to be completed when the customer is in for a regularly scheduled visit.

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GM bulletins are intended for use by professional technicians, NOT a "do-it-yourselfer". They are written to inform these technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the tools, equipment, safety instructions, and know-how to do a job properly and safely. If a condition is described, **DO NOT** assume that the bulletin applies to your vehicle, or that your vehicle will have that condition. See your dealer for information on whether your vehicle may benefit from the information.



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Voluntary Technician  
Certification**