



# Service Bulletin

Bulletin No.: 20-NA-090

Date: August, 2023

## INFORMATION

**Subject:** Identifying Non-GM ECM Calibration Use and Power-up Hardware Detection in Duramax Diesel Engines Using GDS 2

**Attention:** In order to process an engine/transmission/drivetrain hard part Warranty Transaction, the Service Personnel must retrieve and save the required GDS 2 screen shot information as outlined below for the specific vehicle, before disassembly or removing the engine/transmission/drivetrain components from the vehicle. Always refer to the GM Service Policy and Procedures Manual for the latest GM Policy and Procedures Information.

Brand:	Model:	Model Year:		VIN:		Engine:	Transmission:
		from	to	from	to		
Cadillac	Escalade Models	2021	2024	—	—	LM2	—
Chevrolet	Silverado 1500	2020	2021				
	Silverado 1500 New (RPO J22, VIN Digit 5 = A / D)	2022	2022				
	Silverado 1500	2023	2024				
	Silverado 2500HD/3500HD	2020					
	Silverado 4500HD, 5500HD and /6500HD	2019					
	Suburban	2021					
Tahoe							
GMC	Sierra 1500	2020	2021				
	Sierra 1500 New (RPO J22, VIN Digit 5 = H / U)	2022	2022				
	Sierra 1500	2023	2024				
	Sierra 2500HD/3500HD	2020					
	Yukon Models	2021					

<b>Involved Region or Country</b>	North America, Israel, Australia, New Zealand, Europe
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## Information

**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.**

### General Motors Position on Aftermarket Power-Up Devices

General Motors does not support or endorse the use of devices or modifications that when installed, increase the engine horsepower and torque.

This bulletin outlines the procedures to identify the presence of non-GM (aftermarket) calibrations. GM recommends performing this check whenever a hard part failure is seen on internal engine, transmission, transfer case or rear axle components, and before disassembly, repair or replacement of an engine, transmission, transfer case or rear axle assembly under warranty. It is also recommended that the engine calibration verification procedure be performed whenever diagnostics indicate that an exhaust after treatment system component replacement is necessary.

### Various Symptoms Caused by an Aftermarket Power-Up Kit or Hardware

- Poor performance
- Drivability concerns
- Increased emissions
- Knocking noise
- Engine damage
- Smoke from exhaust

## GDS2 Software Updates and Screen Views

GDS 2 Software updates are available when released and are indicated by the following prompt: *Diagnostic Package Updates Available*. Whenever this prompt is displayed, *press the Update (1) button* to download the latest available software version.

Typical GDS 2 screen views may vary due to Model Year, Model, Engine, Transmission, and other Equipment, and for example if the view was saved as a "Report" or as a single screen shot .jpg, .jpeg or .png file. It also depends on the GDS 2 software version currently being used by the Service Technician.

**Notice:** *BEFORE authorizing any Duramax® diesel engine or transmission replacement, the Calibration Group will require copies of both of the following GDS 2 screens in the .jpg, .jpeg or .png file format:*

### Engine Control Module - Calibration History Screen

- Navigate to:
  - ⇒ Module Diagnostics
  - ⇒ Engine Control Module
  - ⇒ Identification Information
  - ⇒ Calibration History
- On this screen, you should see:
  - ⇒ Calibration History Buffer
  - ⇒ Number of Calibration History events stored
  - ⇒ Calibration Part Number History
  - ⇒ Calibration Verification Number History
  - ⇒ Engine Calibration Part Number History X Counter



**Global Diagnostic System 2**

**Calibration History**

**Overview**

Vehicle Identification Number (VIN)	1GT12TEY3HF100164
Report Creation Date	2017-03-07 11:39:33 EST

**Vehicle Configuration Property**

Make	GMC
Model	Sierra
Model Year	2017
Engine Identifier	6.6L (L5P)

**System Information Property**

VCI Serial Number	MDI: 22129187
Vehicle Session Creation Date	2017-03-07 11:19:41
Test Start Time	2017-03-07 11:39:26 EST

**Calibration History**

Control Module	Parameter Name	Value	Unit
Engine Control Module	Calibration History Buffer	Unlocked	
Engine Control Module	Number of Calibration History Events Stored	10	
Engine Control Module	Calibration Part Number History 1	12683726	
Engine Control Module	Calibration Verification Number History 1	DC8D	
Engine Control Module	Engine Calibration Part Number History 1 Counter	1	
Engine Control Module	Calibration Part Number History 2	12683016	
Engine Control Module	Calibration Verification Number History 2	522D	
Engine Control Module	Engine Calibration Part Number History 2 Counter	1	
Engine Control Module	Calibration Part Number History 3	0	
Engine Control Module	Calibration Verification Number History 3	FFFF	
Engine Control Module	Engine Calibration Part Number History 3 Counter	127	
Engine Control Module	Calibration Part Number History 4	0	
Engine Control Module	Calibration Verification Number History 4	FFFF	
Engine Control Module	Engine Calibration Part Number History 4 Counter	127	
Engine Control Module	Calibration Part Number History 5	0	
Engine Control Module	Calibration Verification Number History 5	FFFF	
Engine Control Module	Engine Calibration Part Number History 5 Counter	127	
Engine Control Module	Calibration Part Number History 6	0	
Engine Control Module	Calibration Verification Number History 6	FFFF	
Engine Control Module	Engine Calibration Part Number History 6 Counter	127	
Engine Control Module	Calibration Part Number History 7	0	
Engine Control Module	Calibration Verification Number History 7	FFFF	
Engine Control Module	Engine Calibration Part Number History 7 Counter	127	
Engine Control Module	Calibration Part Number History 8	0	
Engine Control Module	Calibration Verification Number History 8	FFFF	
Engine Control Module	Engine Calibration Part Number History 8 Counter	127	
Engine Control Module	Calibration Part Number History 9	0	
Engine Control Module	Calibration Verification Number History 9	FFFF	
Engine Control Module	Engine Calibration Part Number History 9 Counter	127	
Engine Control Module	Calibration Part Number History 10	0	
Engine Control Module	Calibration Verification Number History 10	FFFF	
Engine Control Module	Engine Calibration Part Number History 10 Counter	127	

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Capture a photo of the Calibration History screen, verify all of the data listed above is on the photo as well as the VIN at the bottom of the screen.

- It may be required to scroll the screen and take multiple photos to capture all of the calibration history events. Save photo(s) and attach it to the email.

**Note:** Repeated “FFFF”s or “0000”s are harmless. They are place holders, and are not actual calibrations. It is not necessary to photograph extra screens containing only this type of calibration (FFFF’s or 0000’s).

Another option is to select the Create Report button in the upper right of the screen. Save the report and attach it to the E-mail.

**Notice:** This is a typical GDS 2 report generated by selecting the “Create Report” button, and taken from a Model Year 2017 Silverado showing the VIN, Calibration History, Calibration Verification Number History and other Associated Parameters

- ⇒ Engine Overspeed Event data
- On this screen, you should see:
  - ⇒ Engine Overspeed Counter
  - ⇒ Total Engine Overspeed Time
  - ⇒ Odometer When Engine Overspeed Detected
  - ⇒ Engine Speed When Engine Overspeed Detected
  - ⇒ Current Gear When Engine Overspeed Detected
  - ⇒ Engine Speed When Engine Overspeed Detected
  - ⇒ Current Gear When Engine Overspeed Detected
  - ⇒ Vehicle Speed When Engine Overspeed Detected
  - ⇒ Accelerator Pedal Position When Engine Overspeed Detected
  - ⇒ MAF When Engine Overspeed Detected

**Engine Control Module - Engine Overspeed Event Data**

- Navigate to:
  - ⇒ Module Diagnostics
  - ⇒ Engine Control Module
  - ⇒ Event Information



## Global Diagnostic System 2

### Event Information

#### Overview

Vehicle Identification Number (VIN)	1G0V133321T122523
Report Creation Date	2023-02-17 14:39:33 EST

#### Vehicle Configuration Property

Make	Chevrolet
Model	Silverado
Model Year	2020
Active grille Air Shielder Type	Active Grille Air Shielder, Upper and Lower (AGAS)
Transmission Type	Automatic Transmission 10-speed (AT10)
Engine Control	5.3L (L57)

#### System Information Property

VCI Serial Number	No Device Selected
Vehicle Service Calendar Date	2023-02-17 13:06:04
Test Start Time	2023-02-17 14:28:36 EST

#### Engine Overspeed Event Data

Control Module	Parameter Name	Value	Unit
Engine Control Module	Engine Overspeed		
Engine Control Module	Engine Overspeed Counter		Count
Engine Control Module	Total Engine Overspeed Time		Sec
Engine Control Module	Idle/Idle When Engine Overspeed Detected		RPM
Engine Control Module	Engine Speed When Engine Overspeed Detected		RPM
Engine Control Module	Cancel Idle When Engine Overspeed Detected		Sec
Engine Control Module	Vehicle Speed When Engine Overspeed Detected		km/h
Engine Control Module	Accelerator Pedal Position When Engine Overspeed Detected		%
Engine Control Module	MAP When Engine Overspeed Detected		kPa

  

Control Module Name	Control Module Status	DTC Count	DTC Pin
Engine Control Module	Waiting For Data...	0	6,14

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Capture a photo of the Data Display screen, verify all of the data listed above is on the photo as well as the VIN at the bottom of the screen.

⇒ Save photo and attach it to E-mail.

Another option is to select the Create Report button in the upper right of the screen. Save the report and attach it to the E-mail.

**Notice:** This is a typical GDS 2 report generated by selecting the "Create Report" button, and taken from a Model Year 2020 Silverado showing the: VIN and Engine Overspeed Event Data.

### Aftermarket Equipment installed in the vehicle

**Notice:** If you notice any aftermarket equipment or devices, please take a photo of the device and document the brand, model, and model number. Please send this information in with the documents requested.

### Instructions for E-Mailing the Required Information and .jpg, .jpeg or .png Files to the Calibration Group

1. E-mail copies of the files to [TACCVN@gm.com](mailto:TACCVN@gm.com)

**Note:** Properly providing the requested information in Step 2 and Step 3 is extremely important.

2. In the *Subject* line of the E-mail include the phrase "Duramax® diesel", the complete VIN and Service Agent BAC.

**Important:** DO NOT cut and paste the GDS 2 screen shots into the body of the e-mail. The .jpg, .jpeg or .png files must be sent as e-mail ATTACHMENTS.

3. In the *Body* of the E-mail include the following:
  - 3.1. Complete VIN
  - 3.2. Mileage
  - 3.3. Job Card Number (R.O. Number)
  - 3.4. Service Agent BAC.
  - 3.5. Service Personnel Name (Manager or Technician)
  - 3.6. A complete and comprehensive description of the customer concern and cause of the concern.
  - 3.7. Include any additional information as to why the Service Personnel believes that there may be aftermarket calibrations or hardware installed on the vehicle.
4. When sending the e-mail to the Calibration Group, the .jpg, .jpeg or .png files *must be "attached" to the e-mail*, in order to properly validate the calibration.
5. E-mails that are sent without all of the above information and attachments as outlined, may be returned to the sender with a request for the missing information.
6. Remember to review e-mail replies for further information from the Calibration Group.

7. The Service Agent will receive an e-mail reply from the Calibration Group after the calibrations have been validated. The e-mail reply will advise the Service Agent if the calibrations are OEM.
8. The Service Personnel may call the PQC after receiving their e-mail notification from the Calibration Group informing them that the calibrations are OEM, if required to do so for Warranty Requirements. Be prepared to provide all of the usual documentation that is normally required when requesting an assembly authorization from the PQC.
  - If the Calibration Group determines that the calibrations *ARE* aftermarket calibrations, *DO NOT* contact GM Technical Assistance to discuss warranty concerns on the aftermarket calibrations. *All* questions and concerns about warranty should be directed to the Service Agent's District Manager Aftersales (DMA) in the United States and in Canada to the District Manager - District Service Manager (DSM).

**Warranty Information**

- The Service Management must be involved in any situation that would justify the use of labor operation 0600014.
- Notify the Service Agent's District Manager Aftersales (DMA) in the United States and in Canada the District Manager - District Service Manager (DSM).
- All claims will have to be routed to the Warranty Support Center (WSC) for approval.
- Please refer to the latest version of Corporate Bulletin Number 09-00-89-016, Labor Operation 0600014 - Suspected Tampering or Vehicle Modifications for important information.

Labor Operation	Description	Labor Time
0600014*	Suspected Tampering or Vehicle Modifications	0.2 hr
*This is a unique Labor Operation for Bulletin use only.		

<b>Version</b>	6
<b>Modified</b>	Released May 04, 2020 Revised November 17, 2020 — Added 2021 Model Years Revised January 14, 2022 — Added the 2022 Model Year and Australia/New Zealand. Revised January 24, 2022 – Added Escalade Models, Silverado 1500, Suburban, Tahoe Sierra 1500 and Yukon Models also added RPO LM2. Revised September 09, 2022 – Added the 2023 Model Year Revised July 31, 2023 - Added 2024 Model Year.

