

Service Bulletin

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.

Brondi	Model:	Model Year:		VIN:		Engine:	Transmission:
Dranu.		from	to	from	to		
Cadillac	Escalade Models	2021	2023				
	Silverado 1500	2020	2021			LM2	
	Silverado 1500 New (RPO J22, VIN Digit 5 = A / D)	2022	2022				
	Silverado 1500	2023	2023			LZO	
Chevrolet	Silverado 2500HD/3500HD	2020	2023			LM2, L5P	
	Silverado 4500HD, 5500HD and /6500HD	2019	2023	_	_	L5D	
	Suburban	2021	2023			LM2	
	Tahoe						
GMC	Sierra 1500	2020	2021				
	Sierra 1500 New (RPO J22, VIN Digit 5 = H / U)	2022	2022				
	Sierra 1500	2023	2023			LZO	
	Sierra 2500HD/3500HD	2020	2023			LM2, L5P	
	Yukon Models	2021	2023			LM2	

Involved Region or Country North America, Israel, Australia, New Zealand

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 aftertreatment 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
 - \Rightarrow Calibration Part Number History
 - ⇒ Calibration Verification Number History
 - ⇒ Engine Calibration Part Number History X Counter

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Global Diagnostic System 2 Calibration History

Overview			
Vehicle Identification Number (VIN)	1GT12TEY3HF100	164	
Report Creation Date	2017-03-07 11:39:	33 EST	
Vehicle Configuration Property			
venicle 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	a	
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	

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 Control Module - Engine Overspeed Event Data

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

- ⇒ Engine Overspeed Event data
- On this screen, you should see:
 - ⇒ Engine Overspeed Counter
 - \Rightarrow 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

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Overview						
Which Identification Number ()	dist;		NOVIN20021710052	9		
Report Creation Date			2020-02-17 14:30:33	EST		
Vehicle Configuration Prop	perty.					
Make	Cher	notes.				
Modiel	Silve	nado				
Model Visar	2020					
Active Grille Air Shaifter Type	Activ	e Grille Air Shutler,	Daper and Lower 09VD			
Transmission Type	Au106	neatic Transmission	10 Speed (MGM)			
Engine Identifier	6.eL	(LSIT)				
System Information Prope	ty					
VCI Serial Number			No Device Selected			
Vehicle Session Creation Date			2020-02-17 13:06:04	2020 02:17 13:06:04		
Test Start Time			2020-02-17 14:28:36:EST			
			2220-02-11 14:25:36:551			
Engine Overspeed Event D	sta		2220-02-11-14-26-36-051			
Engine Overspeed Event D Centrel Module	Panameler Name		212042111112636251		Wakee	Unit.
Engine Overspeed Event D Desirel Module Engine Control Vedula	Parameter Name Forjan Overgood		2120-02-11 14 26 36 251		Walkee	Unit
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Engine Overspeed Event D Easted Module Engine Control Module	Arta Panameter Name Engine Overspeed Counter Tota: Engine Overspeed Counter Tota: Engine Overspeed Time Odoravla: When Engine Over Engine Speed When Engine Accelerator Podel Parator W MAF When Engine Overspee Commit M	c opend Delected Ownspeed Detected Designed Detected Des Legine Ownsp Net Legine Ownsp d Deneted Solute Status	4 and Defacted	RTG Count	Di C P	Unit Court Fris km RPM km/h % g/s

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.

 \Rightarrow 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

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.

In the *Body* of the E-mail include the following:
3.1. Complete VIN

5591397

- 3.2. Mileage
 - 2 Job Cord Number (D)
- 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.

- 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			

Version	5
Modified	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

GM bulletins are intended for use by professional technicians, NOT a "<u>do-it-yourselfer</u>". 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 equipment, tools, safety instructions, and know-how to do a job properly and safely. If a condition is described, <u>DO NOT</u> assume that the bulletin applies to your vehicle, or that your vehicle will have that condition. See your GM dealer for information on whether your vehicle may benefit from the information.



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