



Service Bulletin

File in Section: 06 - Engine

Bulletin No.: 14-06-04-003

Date: February, 2014

INFORMATION

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

Models: 2014-2015 Chevrolet Express, Silverado
2014-2015 GMC Savana, Sierra
Equipped With Duramax® Turbocharged Diesel Engine 6.6L — RPO LGH or LML

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.

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.
- Driveability concerns.
- Increased emissions.
- Knocking noise.
- Engine damage.
- Black smoke from the exhaust. This symptom may not occur if the diesel particulate filter (DPF) is in good working condition. The DPF will trap black exhaust smoke unless it is cracked, melted or has been removed from the exhaust system.

GDS 2 Software Updates and Screen Views



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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.

GDS 2 Screen Shots Required by the Calibration Group — 2014 Chevrolet Silverado Typical View of Screen Shots Generated as a Report

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

Engine Control Module — Calibration History, Calibration Verification Number History and Associated Parameters

The screenshot displays two main sections of the GDS 2 software interface:

Overview

MDI Serial Number	22133156
Vehicle Identification Number (VIN)	1GC1KVE8EF118233
Diagnostic End Date	2014-01-22 16:37:32
Diagnostic Start Date	2014-01-22 16:37:32
Number of Times Diagnostic Session Resumed	0
Make	Chevrolet
Model	Silverado
Model Year	2014
Vehicle Variation	GMT90X

Calibration History

Control Module	Parameter Name	Value	Unit
Engine Control Module	Calibration History Buffer	Unlocked	
Engine Control Module	Number of Calibration History Events Stored	2	
Engine Control Module	Calibration Part Number History 1	12659949	
Engine Control Module	Calibration Verification Number History 1	A4DDBB48	
Engine Control Module	Engine Calibration Part Number History 1 Counter	2	
Engine Control Module	Calibration Part Number History 2	12650010	
Engine Control Module	Calibration Verification Number History 2	4A442766	
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	0	
Engine Control Module	Engine Calibration Part Number History 3 Counter	0	
Engine Control Module	Calibration Part Number History 4	0	
Engine Control Module	Calibration Verification Number History 4	0	
Engine Control Module	Engine Calibration Part Number History 4 Counter	0	
Engine Control Module	Calibration Part Number History 5	0	
Engine Control Module	Calibration Verification Number History 5	0	
Engine Control Module	Engine Calibration Part Number History 5 Counter	0	
Engine Control Module	Calibration Part Number History 6	0	
Engine Control Module	Calibration Verification Number History 6	0	
Engine Control Module	Engine Calibration Part Number History 6 Counter	0	
Engine Control Module	Calibration Part Number History 7	0	
Engine Control Module	Calibration Verification Number History 7	0	
Engine Control Module	Engine Calibration Part Number History 7 Counter	0	
Engine Control Module	Calibration Part Number History 8	0	
Engine Control Module	Calibration Verification Number History 8	0	
Engine Control Module	Engine Calibration Part Number History 8 Counter	0	
Engine Control Module	Calibration Part Number History 9	0	
Engine Control Module	Calibration Verification Number History 9	0	
Engine Control Module	Engine Calibration Part Number History 9 Counter	0	
Engine Control Module	Calibration Part Number History 10	0	
Engine Control Module	Calibration Verification Number History 10	0	
Engine Control Module	Engine Calibration Part Number History 10 Counter	0	

The bottom of the screenshot shows a Windows taskbar with various application icons and a system tray displaying the time as 11:21 AM on 1/29/2014.

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Notice: This is a typical GDS 2 screen shot generated as a "Report", and taken from a Model Year 2014 Silverado showing the: VIN, Calibration History, Calibration Verification Number History and other Associated Parameters

Depending on the computer screen configuration being used and the Number of Calibration History Events Stored, you may need to take two screen shots to retrieve, save and view all of the information.

- Express, Silverado, Savana or Sierra: Retrieve and save the GDS 2 screen information as shown displaying the following:
- VIN
- Diagnostic Start Date
- Diagnostic End Date
- Calibration History

- Engine Control Module information showing the following Parameters:
 - Number of Calibration History Events Stored
 - Calibration Part Number History
 - Calibration Verification Number History
 - Engine Calibration Part Number History

Transmission Control Module — Maximum Calculated Engine Torque Parameter

Global Diagnostic System 2

Data Display

Overview

MDI Serial Number	22133156
Vehicle Identification Number (VIN)	1GC1KVE8XEF118233
Diagnostic End Date	2014-01-22 16:37:32
Diagnostic Start Date	2014-01-22 16:37:32
Number of Times Diagnostic Session Resumed	0
Make	Chevrolet
Model	Silverado
Model Year	2014
Vehicle Variation	GMT9XX

Transmission Data

Control Module	Parameter Name	Value	Unit
Transmission Control Module	Calculated Engine Torque	24	lb ft
Transmission Control Module	Maximum Calculated Engine Torque	692	lb ft
Transmission Control Module	Driver Requested Aftc Torque	0	lb ft
Transmission Control Module	TCM Requested Torque	0	lb ft
Transmission Control Module	Driver Demanded Engine Torque	326	lb ft
Transmission Control Module	Calculated Throttle Position	35	%
Transmission Control Module	Engine Speed	1518	RPM
Transmission Control Module	Turbine Speed	1518	RPM
Transmission Control Module	Transmission ISS	1518	RPM
Transmission Control Module	Transmission OSS	2480	RPM
Transmission Control Module	Current Gear	Drive	
Transmission Control Module	Gear Command	6	
Transmission Control Module	Shift Solenoid Valve 1	Off	
Transmission Control Module	Shift Solenoid Valve 2	Off	
Transmission Control Module	Shift Solenoid Valve 3	On	
Transmission Control Module	Shift Solenoid Valve 1 Debris Clearing Command	0	Counts
Transmission Control Module	Shift Solenoid Valve 2 Debris Clearing Command	0	Counts
Transmission Control Module	Shift Solenoid Valve 3 Debris Clearing Command	0	Counts
Transmission Control Module	Shift Solenoid Valve 1 Debris Clearing Command	Inactive	
Transmission Control Module	Shift Solenoid Valve 2 Debris Clearing Command	Inactive	
Transmission Control Module	Shift Solenoid Valve 3 Debris Clearing Command	Inactive	
Transmission Control Module	Gear Ratio	0.61:1	
Transmission Control Module	Transmission Range Switch	Drive	

Notice: This is a typical GDS 2 screen shot generated as a “Report”, and taken from a Model Year 2014 Silverado showing the: VIN and Maximum Calculated Engine Torque Parameter

- Silverado or Sierra only: Retrieve and save the GDS 2 screen information as shown displaying the following:
 - VIN
 - Diagnostic Start Date
 - Diagnostic End Date
 - Maximum Calculated Engine Torque Parameter.

GDS 2 Screen Shots Required by the Calibration Group — 2015 GMC Sierra Typical View of Individual Screen Shots

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

Engine Control Module — Calibration History, Calibration Verification Number History and Associated Parameters

Parameter Name	Control Module	Value	Unit
Calibration History Buffer	Engine Control Module	Unlocked	
Number of Calibration History Events Stored	Engine Control Module	2	
Calibration Part Number History 1	Engine Control Module	12661740	
Calibration Verification Number History 1	Engine Control Module	1F7909C1	
Engine Calibration Part Number History 1 Counter	Engine Control Module	2	
Calibration Part Number History 2	Engine Control Module	12660724	
Calibration Verification Number History 2	Engine Control Module	5A292AC1	
Engine Calibration Part Number History 2 Counter	Engine Control Module	1	
Calibration Part Number History 3	Engine Control Module	0	
Calibration Verification Number History 3	Engine Control Module	0	
Engine Calibration Part Number History 3 Counter	Engine Control Module	0	
Calibration Part Number History 4	Engine Control Module	0	
Calibration Verification Number History 4	Engine Control Module	0	
Engine Calibration Part Number History 4 Counter	Engine Control Module	0	
Calibration Part Number History 5	Engine Control Module	0	
Calibration Verification Number History 5	Engine Control Module	0	
Engine Calibration Part Number History 5 Counter	Engine Control Module	0	
Calibration Part Number History 6	Engine Control Module	0	
Calibration Verification Number History 6	Engine Control Module	0	
Engine Calibration Part Number History 6 Counter	Engine Control Module	0	
Calibration Part Number History 7	Engine Control Module	0	
Calibration Verification Number History 7	Engine Control Module	0	
Engine Calibration Part Number History 7 Counter	Engine Control Module	0	
Calibration Part Number History 8	Engine Control Module	0	
Calibration Verification Number History 8	Engine Control Module	0	
Engine Calibration Part Number History 8 Counter	Engine Control Module	0	

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Notice: This is a typical GDS 2 “individual” screen shot taken from a Model Year 2015 Sierra showing the: VIN, Calibration History, Calibration Verification Number History and other Associated Parameters.

Depending on the computer screen configuration being used and the Number of Calibration History Events Stored, you may need to take two screen shots to retrieve, save and view all of the information.

- Express, Silverado, Savana or Sierra: Retrieve and save the GDS 2 screen information as shown displaying the following:
- VIN (at bottom of screen - must be visible)

- Engine Control Module information showing the following Parameters:
 - Number of Calibration History Events Stored
 - Calibration Part Number History
 - Calibration Verification Number History
 - Engine Calibration Part Number History

Transmission Control Module — Maximum Calculated Engine Torque Parameter

The screenshot shows the GDS 2 Diagnostic Data Display interface. The 'Transmission Data' table is displayed with the following parameters:

Parameter Name	Control Module	Value	Unit
Calculated Engine Torque	Transmission Control Module	0	lb ft
Maximum Calculated Engine Torque	Transmission Control Module	704	lb ft
Driver Requested Axle Torque	Transmission Control Module	0	lb ft
TCM Requested Torque	Transmission Control Module	0	lb ft
Driver Demanded Engine Torque	Transmission Control Module	-47	lb ft
Calculated Throttle Position	Transmission Control Module	0	%
Engine Speed	Transmission Control Module	0	RPM
Turbine Speed	Transmission Control Module	0	RPM
Transmission ISS	Transmission Control Module	0	RPM
Transmission OSS	Transmission Control Module	0	RPM
Current Gear	Transmission Control Module	Park	
Gear Command	Transmission Control Module	Park/Neutral	
Shift Solenoid Valve 1	Transmission Control Module	Off	
Shift Solenoid Valve 2	Transmission Control Module	Off	
Shift Solenoid Valve 3	Transmission Control Module	Off	
Shift Solenoid Valve 1 Debris Clearing Command	Transmission Control Module	0	Counts
Shift Solenoid Valve 2 Debris Clearing Command	Transmission Control Module	0	Counts
Shift Solenoid Valve 3 Debris Clearing Command	Transmission Control Module	0	Counts
Shift Solenoid Valve 1 Debris Clearing Command	Transmission Control Module	Inactive	
Shift Solenoid Valve 2 Debris Clearing Command	Transmission Control Module	Inactive	
Shift Solenoid Valve 3 Debris Clearing Command	Transmission Control Module	Inactive	
Gear Ratio	Transmission Control Module	8.00:1	
Transmission Range Switch	Transmission Control Module	Park	
Transmission Fluid Pressure Switch 1	Transmission Control Module	High	
Transmission Fluid Pressure Switch 2	Transmission Control Module	High	
Transmission Fluid Pressure Switch 3	Transmission Control Module	High	

At the bottom of the screen, the VIN is displayed as: VIN: 1GT523C84FZ100044. The status bar shows 'GDS 2 v.11.2.01109', 'GM Global v2014.1.0', and '2015,GMC,Sierra'. The system tray shows '12.3 V' and the date '2/6/2014'.

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Notice: This is a typical GDS 2 “individual” screen shot taken from a Model Year 2015 Sierra showing the: VIN and Maximum Calculated Engine Torque Parameter

- Silverado or Sierra only: Retrieve and save the GDS 2 screen information as shown displaying the following:
 - VIN (at bottom of screen - must be visible)
 - Maximum Calculated Engine Torque Parameter.

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@gmexpert.com

Notice: 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.
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.

Notice: 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.

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 your 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 - Customer Care and Service Process (DM - CCSP).

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 - Customer Care and Service Process (DM - CCSP).
- 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.

For vehicles repaired under warranty, use:

Labor Operation	Description	Labor Time
0600014	Suspected Tampering or Vehicle Modifications	0.2 hr

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