

Subject: GHG21 Detroit DD16® CPC Software Reprogramming

Models Affected: GHG21 Detroit DD16® 473.910 engines in Western Star® 49X vehicles built between February 1, 2020 through September 5, 2021

General Information

Daimler Trucks North America LLC, on behalf of its DETROIT® Powertrain Division, is initiating Field Service Campaign D21M7 to update CPC software on certain Detroit DD16® engines in Western Star® 49X vehicles to improve acceleration when the vehicle is unloaded or lightly loaded.

All the vehicles in the population require programming the CPC. Some vehicles require programming the ACM, MCM, and TCM (if equipped with a Detroit DT12® transmission) to Model Year 2021 for compatibility. Please refer to the attached work instructions for **MINIMUM** software versions.

Affected Detroit DD16® engines are in Western Star® 49X vehicles that were programmed at the truck plant between February 1, 2020 through September 5, 2021.

There are approximately 1,177 units affected by this Field Service Campaign.

Note that some vehicles are already programmed with the updated software version. These vehicles were excluded from this Field Service Campaign. Note the currently available software levels may be higher than the minimum levels shown in the work instructions.

Work Instructions

Please refer to the attached work instructions. **Prior to performing this field service campaign, check the vehicle for a completion sticker (Form WAR261).**

Labor Allowance

Table 1 – Labor Allowance for D21M7

Procedure	Time Allowed (hours)	SRT Number	Corrective Action
D21M7			
Reprogram CPC	0.3 Hours	996-F106A	12- Repair Recall/Campaign
Reprogram CPC, MCM	0.4 Hours	996-F106B	12- Repair Recall/Campaign
Reprogram CPC, MCM, ACM	0.5 Hours	996-F106C	12- Repair Recall/Campaign
Reprogram CPC, MCM, ACM, TCM	0.7 Hours	996-F106D	12- Repair Recall/Campaign

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Claim Reimbursement

Obtain reimbursement for parts, labor, and handling (landed cost for Export Distributors) by submitting your claim through the Warranty system within 30 days of campaign completion. Please reference the following information in OWL.

Table 2 – Claim Reimbursement

Claim Type	Field Service Campaign
Campaign	D21M7
Component Code	037-001-006
Cause Code	A1 – Campaign
Primary Failed Part	DDC REPROGRAM4
Procedure A¹	
Labor Number	996-F106A D21M7 REPROGRAM CPC
Labor Hours	0.3 Hours
Part Number	NONE
Parts Return	SCRAP
Procedure B¹	
Labor Number	996-F106B D21M7 REPROGRAM CPC, MCM
Labor Hours	0.4 Hours
Part Number	NONE
Parts Return	SCRAP
Procedure C¹	
Labor Number	996-F106C D21M7 REPROGRAM CPC, MCM, ACM
Labor Hours	0.5 Hours
Part Number	NONE
Parts Return	SCRAP
Procedure D¹	
Labor Number	996-F106D D21M7 REPROGRAM CPC, MCM, ACM, TCM
Labor Hours	0.7 Hours
Part Number	NONE
Parts Return	SCRAP
¹ Administrative time (SRT 939-6010A) for 0.3 hours is automatically added to the claim.	

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This Field Service Campaign will terminate on **November 11th, 2022**. Dealers will be notified of any changes.

IMPORTANT: OWL must be viewed prior to beginning work to ensure the vehicle is involved and the campaign has not previously been completed.

All claims must be submitted within 30 days of the repair and within 30 days of the termination date of the campaign.

U.S. and Canadian dealers should contact the Warranty Campaigns Department via Web inquiry at DTNACONNECT.com/WSC, if they have any questions or need additional information.

Daimler Trucks

North America LLC

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Field Service Campaign

Detroit Diesel Corporation
13400 Outer Drive, West
Detroit, Michigan 48239-4001
Telephone: 313-592-5000

Copy of Notice to Owners

Subject: GHG21 Detroit DD16® CPC Software Reprogramming

Daimler Trucks North America LLC, on behalf of its DETROIT® Powertrain Division, is initiating Field Service Campaign D21M7 to update Common Powertrain Controller (CPC) software on certain Detroit DD16® engines in Western Star® 49X vehicles to improve acceleration when the vehicle is unloaded or lightly loaded.

Records available to us indicate that your vehicle has one of the eligible engines. Instructions for this Field Service Campaign have been sent to your local Detroit Diesel Authorized Repair Facility and the labor time required to perform this update is approximately **0.7 hours**.

Please contact a DTNA Authorized Repair Facility to arrange to have the Field Service Campaign performed. To locate an authorized facility, search online at <https://demanddetroit.com/find-a-dealer/>.

This service will be completed for you at no charge, prior to **November 11th, 2022** under the provisions of this notice.

We are sorry to cause you this inconvenience; however, we have taken this action in the interest of your continued satisfaction with our products.

DETROIT WARRANTY CAMPAIGNS DEPARTMENT

Enclosure

Work Instructions

Subject: Detroit DD16® CPC Software Reprogramming

Models Affected: GHG21 Detroit DD16® 473.910 engines in Western Star® 49X vehicles built between February 1, 2020 through September 5, 2021

Corrective Procedure

1. You **MUST** use DiagnosticLink® Professional 8.14 Service Pack 3 (*or higher*) when reprogramming. **REFERENCE** DTNACONNECT "My Communications" notice dated 8/26/2021 for more information on DiagnosticLink® 8.14 Service Pack 3.
2. Begin the process by connecting DiagnosticLink® to the vehicle. Make sure that all modules (ACM, CPC, MCM, and TCM if equipped with a Detroit DT12® transmission) are connected.

NOTICE: BEFORE you begin programming, make sure the VIN is correct in all modules. If the VIN is incorrect in any modules, you will receive an error message when attempting to reprogram.

3. Make sure the VIN is correct in all modules by looking at the "Identification" screen in DiagnosticLink®. If the VIN is incorrect, you can correct the VIN under the Actions drop-down menu in DiagnosticLink® by selecting the "Check VIN Synchronization" item. Select "Start" from this panel and follow the prompts. You will be prompted to cycle the key until the routine has completed. When synchronization is complete, turn the key back on and continue with the download process.
4. On the Identification screen, check the current ACM, MCM, CPC, and TCM software and fuel map levels. The **MINIMUM** levels required are listed below. Note that the CPC will require programming regardless of what is currently in it. See below for *examples* of the Identification screen for the TCM and MCM.
 - CPC software version R20.31.00.00A. If equipped with a Detroit DT12® transmission, the shift map must be p/n A0264488202 ZGS 002. Note that the CPC will require programming regardless of what is currently in it.
 - ACM software version 7.61.1.0 with fuel map p/n A0304482754 ZGS 001.
 - MCM software version 6.9.0.2 with fuel map version ZGS 003.
 - For Detroit DT12® equipped vehicles, TCM software version NAMT201403 software.

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Example: TCM software NAMT191402 is not at the MINIMUM software level required, and needs updating.

UDS-3 TCM01T - Transmission Control Module	
Device Configuration	
Software Mode	Running in Application
Device Information	
Software Version	NAMT191402
Diagnostic Version	20
ECU Serial Number	00-00-00-00-00-12-70-29-00-43
Hardware Part Number	A050 446 36 09 ZGS 002
Software Part Number	A050 448 18 09 ZGS 001

Example: MCM software version 6.8.0.1 is not at the MINIMUM software level required, and needs updating.

UDS-1 MCM21T - Motor Control Module 2.1	
Device Configuration	
Fuelmap Part Number	A062 448 37 35 ZGS 004
Fuel Map Description	R_6801_3SI302S010
Certification Number	473LA_20a_600/1850
Software Mode	Running in Application
Rating Code	A0624483735
Application Code	06N04C1606
Application Code Part Number	A0514472635_005
Device Information	
Software Version	6.8.0.1
Diagnostic Version	237
ECU Serial Number	0038206208
Hardware Part Number	A002 446 09 35 ZGS 002
Software Part Number	A065 448 11 35 ZGS 001

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- For the ACM, MCM, and TCM, note which module(s) have software and fuel map ZGS version level that are less than the software and fuel map ZGS revision levels listed on page 4. Note that the CPC will require programming regardless of what is currently in it.
NOTE: The ACM, MCM, and TCM software and fuel map ZGS version level must meet the **MINIMUM** requirements.
- Select "Parameters" option along the left side of the DiagnosticLink® screen. Wait for parameters to be read.
- Select "Program Device" option along the left side of the DiagnosticLink® screen. There will be "Data to Upload". Click "Connect to Server".
- Select the "Add" button in the lower left corner of the DiagnosticLink® screen and enter the engine serial number. Click the "Connect to Server" button in the lower left corner of the DiagnosticLink® screen to download data, and then select "Connected unit" once complete. Continue by selecting "Next". See below figures.

Program Device

Unit Software Datasets Diagnostic descriptions

Pending requests for server data

1FUJHHR2MLMA5080 - 47291050750753 - 2021 Freightliner New Cascadia 126 Sleeper Cab

Request Equipment Data Download

Enter the identity of the equipment you wish to program.

Vehicle Identification ☒ VIN ☐ PIN

1FUJHHR2MLMA5080

Engine Serial Number (Unit Number)

47291050750753

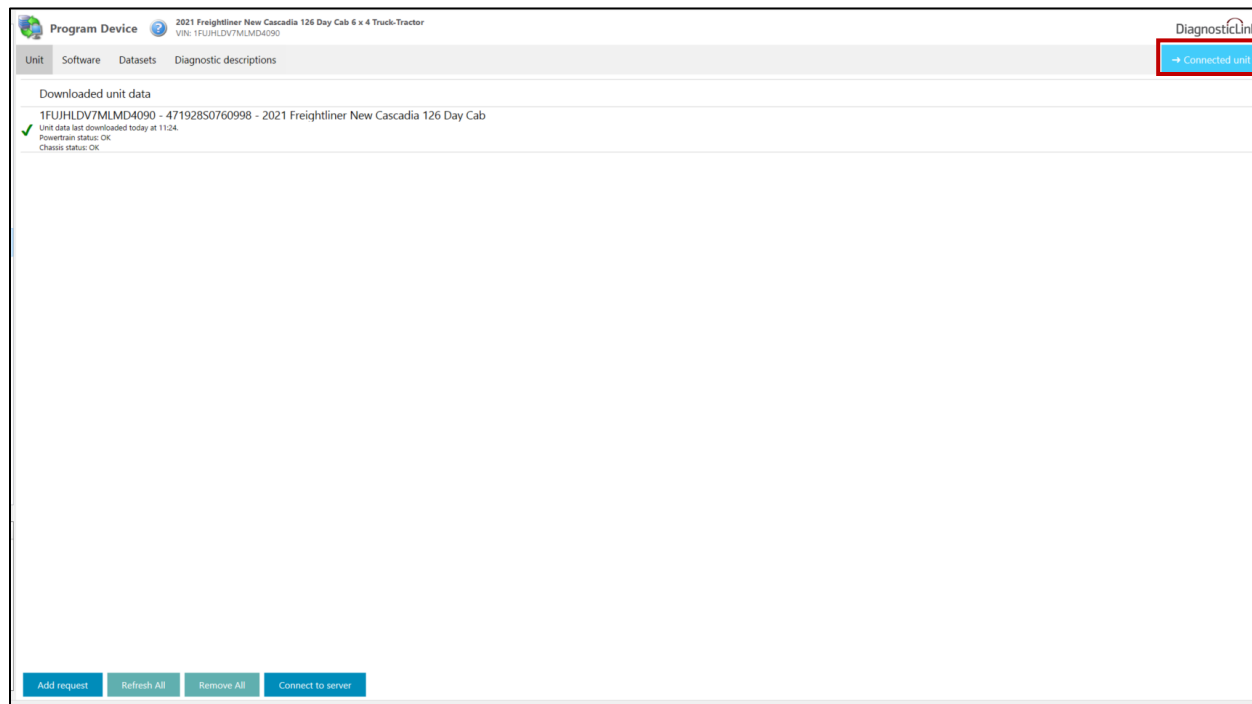
Device controllers for this equipment

+ Add - Remove

Device	Hardware Part Number
CPC501T	A0554462202-001

Clear All OK Cancel

Add request Refresh All Remove All Connect to server



9. Program the CPC. If necessary, program the ACM, MCM, and TCM based on the above inspection results and engine serial number listing included with this recall campaign.
10. When programming is complete, click the “Finish” button and perform the following to allow the modules to synchronize with each other:
 - Disconnect the USB Link at 9-pin vehicle diagnostic port.
 - Turn the vehicle ignition OFF and wait one minute.
 - Turn the vehicle ignition ON and wait one minute.
 - Turn the vehicle ignition OFF and wait one minute.
 - Turn the vehicle ignition ON and wait one minute.
 - Reconnect the USB Link, reconnect DiagnosticLink® to the MCM, ACM, CPC, and TCM, and confirm the proper software and fuel map levels.

NOTICE: CHECK with the customer to see if Auto Elevate can be enabled. Auto Elevate can prevent Aftertreatment System (ATS) issues.

11. Ask the customer if they would like Auto Elevate activated. **REFERENCE** Detroit® Technical Service letter 16TS-18 for full details on Auto Elevate.
12. Repairs are complete.

Completion Stickers

- Upon completion of Field Service Campaign **D21M7**, clean a spot on the base label (Form WAR259), write the Field Service Campaign Number **D21M7** on a blank, completion sticker (Form WAR261), and attach the completion sticker to the base label.
- Label ordering info: DTNACconnect > Services and Reference > Publications & Warranty Supplies > Warranty