

September 2021
SF636A

Subject: Western Star 49X Differential Lock - Parameter Update

Models Affected: Specific model year 2021-2022 Western Star 49X vehicles, manufactured February 10, 2020, through March 15, 2021.

General Information

Daimler Trucks North America LLC (DTNA), on behalf of its wholly owned subsidiary Western Star Truck Sales, Inc., is initiating Field Service Campaign SF636A to modify the vehicles mentioned above.

Vehicles may automatically disengage the differential lock without warning when vehicle speed reaches 25 mph.

The differential lock parameters will be updated to eliminate this automatic disengagement.

There are approximately 253 vehicles involved.

Additional Repairs

Dealers must complete all outstanding Recall and Field Service campaigns prior to the sale or delivery of a vehicle. A Dealer will be liable for any progressive damage that results from its failure to complete campaigns before sale or delivery of a vehicle.

Owners may be liable for any progressive damage that results from failure to complete campaigns within a reasonable time after receiving notification.

Please contact Warranty Campaigns for consideration of additional charges prior to performing the repair.

Work Instructions

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

Replacement Parts

This is a parameter update; no replacement parts required.

Removed Parts

U.S. and Canadian Dealers, please follow Warranty Failed Parts Tracking shipping instructions for the disposition of all removed parts. Export distributors, please destroy removed parts unless otherwise advised.

Labor Allowance

Table 1 - Labor Allowance

Campaign Number	Procedure	Time Allowed (hours)	SRT Code	Corrective Action
SF636A	PARAMETER UPDATE, WST, DIFFERENTIAL LOCK UPDATE	0.3	996-F030A	12-Repair Recall/Campaign

Table 1

IMPORTANT: When the campaign has been completed, locate the base completion label in the appropriate location on the vehicle, and attach the gray completion sticker provided in the field service kit (Form WAR261). If the vehicle does not have a base completion label, clean a spot on the appropriate location of the vehicle and first attach the base completion label (Form WAR259). If a field service kit is not required or there is no completion sticker in the kit, write the campaign number on a blank sticker and attach it to the base completion label.

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Claims for Credit

You will be reimbursed for your parts, labor, and handling (landed cost for Export Distributors) by submitting your claim through the Warranty system within 30 days of completing this campaign. Please reference the following information in OWL:

- Claim type is **Field Service Campaign**.
- In the Campaign field, enter the campaign number and appropriate condition code (**SF636-A**).
- In the Primary Failed Part field, enter **25-SF636-000**.
- In the Parts section, there should be no entry unless due to special circumstances.
- In the Labor section, enter the appropriate SRT from the Labor Allowance Table. Administrative time will be included automatically as SRT 939-6010A for 0.3 hours.
- The VMRS Component Code is **F99-999-005** and the Cause Code is **A1 - Campaign**.
- This Field Service Campaign will **terminate on September 30, 2022**. Dealers will be notified of any changes to the termination date via an Important Campaign Information Letter posted on DTNACConnect.

IMPORTANT: OWL must be viewed prior to beginning work to ensure the vehicle is involved and the campaign has not previously been completed. Also, check for a completion sticker before beginning work.

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: All excess inventory to be returned to the PDC following the conclusion of the campaign must be returned in resaleable condition to the Memphis PDC within 90 days from the termination date. Please submit a PAR to request return to the Memphis PDC. (Canadian dealers should return the kits to their facing PDC.) Export Distributors: Excess inventory is not returnable.

For questions, U.S. and Canadian dealers, contact the Warranty Campaigns Department via Web inquiry at DTNACConnect.com/WSC, or the Customer Assistance Center at (800) 385-4357, if you have any questions or need additional information. Export distributors submit a Web inquiry or contact your International Service Manager.

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Copy of Notice to Owners

Subject: Western Star 49X Differential Lock - Parameter Update

Daimler Trucks North America LLC (DTNA), on behalf of its wholly owned subsidiary Western Star Truck Sales, Inc., is initiating Field Service Campaign SF636A to modify specific model year 2021-2022 Western Star 49X vehicles, manufactured February 10, 2020, through March 15, 2021.

Vehicles may automatically disengage the differential lock without warning when vehicle speed reaches 25 mph. The differential lock parameters will be updated to eliminate this automatic disengagement.

Please contact an authorized DTNA dealer to arrange to have the campaign performed. To locate an authorized dealer, go to Daimler-TrucksNorthAmerica.com/Contact-Us/. Scroll down to "Locate a Dealer," and select the appropriate brand. The campaign will take approximately one half hour and will be performed at no charge to you.

This Field Service Campaign will **terminate on September 30, 2022**. Please make sure the campaign is completed prior to this date. Work completed after this date will be done at the customer's expense.

As stated in the terms of your express limited warranty, Daimler Trucks North America LLC will not pay for any damage caused by failure to properly maintain your vehicle. Daimler Trucks North America LLC considers the work necessary under this campaign to be proper maintenance and will, therefore, not pay for any damage to your vehicle caused by your failure to have the repairs that are the subject of this campaign performed in a reasonable time.

Contact the Warranty Campaigns Department at (800) 547-0712, from 7 a.m. to 4 p.m. Pacific Time, Monday through Friday, e-mail address DTNA.Warranty.Campaigns@Daimler.com, or the Customer Assistance Center at (800) 385-4357, if you have any questions or need additional information.

WARRANTY CAMPAIGNS DEPARTMENT

Enclosure

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Work Instructions

Subject: Western Star 49X Differential Lock - Parameter Update

**Models Affected: Specific model year 2021-2022 Western Star 49X
vehicles, manufactured February 10, 2020, through March 15, 2021**

Differential Lock Parameter Update

1. Check the base label (Form WAR259) for a completion sticker for SF636 (Form WAR261) indicating this work has been done. The base label is usually located on the passenger door about 12 inches (30 cm) below the door latch. If a sticker is present, no work is needed. If there is no sticker, proceed with the next step.
2. Park the vehicle on a level surface, shut down the engine, and set the parking brake. Chock the tires.
IMPORTANT: Make sure that DiagnosticLink® is updated to the latest version (8.14 SP3 at the time of publication, or newer) before programming the vehicle.
3. Open DiagnosticLink prior to connecting to the vehicle.
4. Using DTNACONnect credentials, connect DiagnosticLink to the server. The sign-in to the server will remain active until DiagnosticLink is closed. See [Fig. 1](#).

Authentication

Please enter your user name and password.

User Name

Remember my user name

Password

[Logon Help](#)

You have 60 days remaining before a server login is required to keep the tool active.

OK Cancel

01/14/2021 f120845

Fig. 1, Sign-In Window

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5. Connect the vehicle to DiagnosticLink. Ensure the sSAM rollcalls, and is visible in the 'Connections' window. See **Fig. 2**.

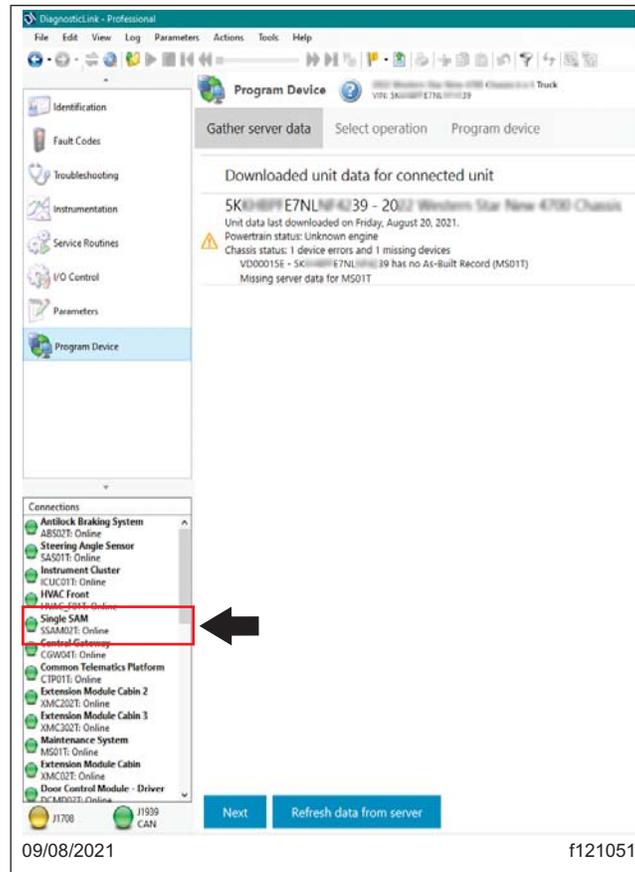


Fig. 2, sSAM Connected

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- Open the 'Parameters' tab, and allow the parameters to be read completely by DiagnosticLink, as indicated by the status bar at the bottom of the screen. See [Fig. 3](#).

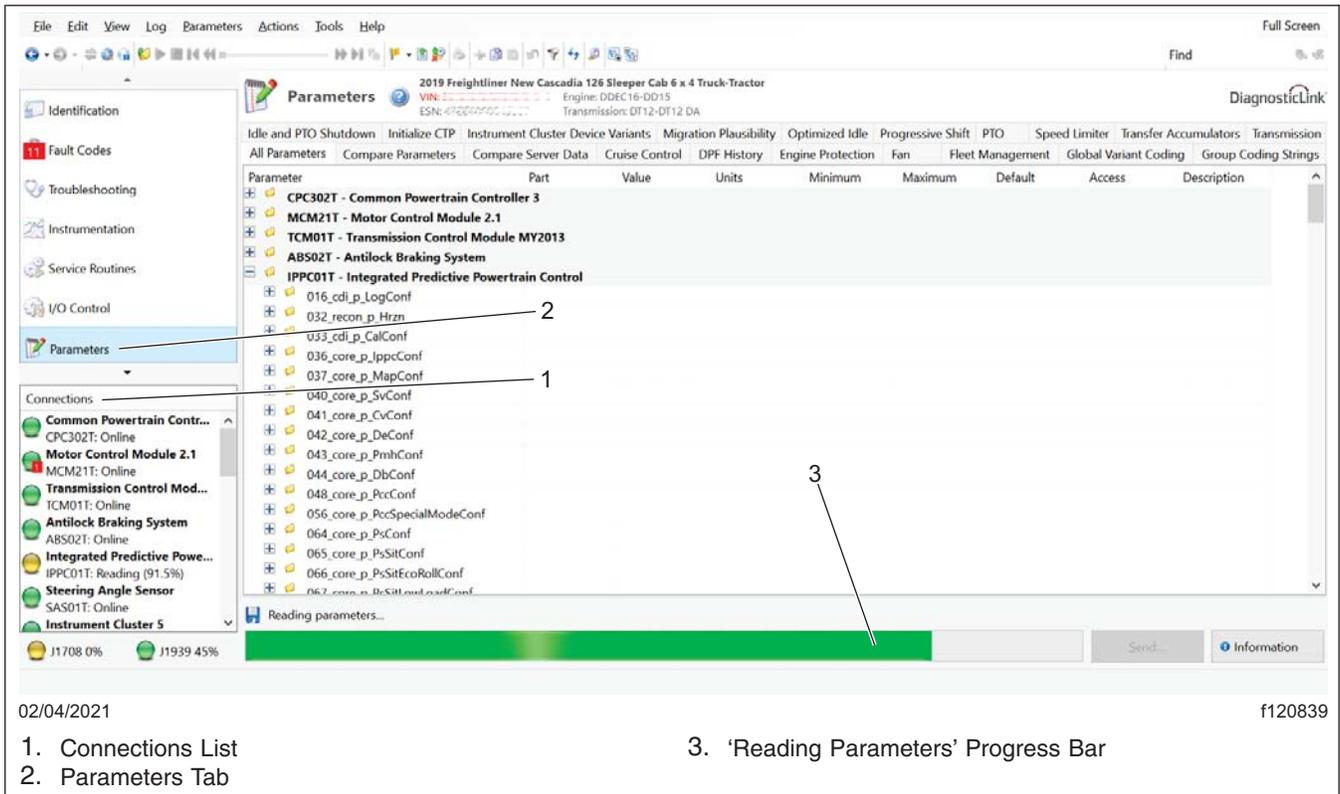


Fig. 3, Connecting Default ECUs and Reading Vehicle Parameters in DiagnosticLink

- Go to 'Program Device,' and make sure that the vehicle identification number (VIN) information that appears is correct. If not, remove each VIN by selecting the 'Remove' button located at the far right-hand side of that VIN. To remove all the VINs at once, select the 'Remove All' button at the bottom of the screen. See [Fig. 4](#).

If the VIN is not automatically detected, select 'Add request,' then enter the VIN. Select the electronic control unit (ECU) to be connected. See [Fig. 5](#) and [Fig. 6](#).

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The screenshot shows the DiagnosticLink interface for a 2021 Freightliner New Cascadia 126 Day Cab 6 x 4 Truck-Tractor. The left sidebar contains navigation options: Identification, Fault Codes, Troubleshooting, Instrumentation, Service Routines, I/O Control, Parameters, Program Device (selected), Flash, and Application Status. The main content area is titled 'Program Device' and includes tabs for Unit, Software, Datasets, and Diagnostic descriptions. A 'Downloaded unit data' section lists two units: 3A1...D12...40... - 2020 Freightliner New Cascadia 126 Day Cab and 1F...R3N...Z5... - 2021 Freightliner New Cascadia 126 Sleeper Cab. The second unit has a warning icon and a message: 'Powertrain status: Current software adjusted to a compatible set and 1 device errors. User Requested hardware part number not valid (BPC01T). Chassis status: OK'. Below this list are 'Refresh' and 'Remove' buttons. At the bottom of the interface are buttons for 'Add request', 'Refresh All', 'Remove All', and 'Connect to server'. A 'Logged Connections (paused)' section lists various components like CPC501T, MCM21T, TCM01T, ABS02T, and BPC01T. The date '07/13/2021' is shown at the bottom left, and 'f121011' at the bottom right. Two callouts are present: '1' points to the 'Remove' button for the second unit, and '2' points to the 'Remove All' button.

07/13/2021

1. Remove Button

2. Remove All Button

f121011

Fig. 4, Removing VINs

The screenshot shows the DiagnosticLink interface for a 2017 Freightliner 1145D 6 x 4 Truck. The left sidebar is the same as in Fig. 4. The main content area is titled 'Program Device' and includes tabs for Unit, Software, Datasets, and Diagnostic descriptions. A message states: 'There is no information to display.' The 'Logged Connections (paused)' section lists components like CPC04T, MCM21T, CGW02T, ACM21T, and J1939-3. At the bottom of the interface are buttons for 'Add request', 'Refresh All', 'Remove All', and 'Connect to server'. The date '08/04/2021' is shown at the bottom left, and 'f121012' at the bottom right. Two callouts are present: '1' points to the 'Add request' button, and an upward-pointing arrow points to the '+ Connected unit' button in the top right corner.

08/04/2021

1. Add Request Button

f121012

Fig. 5, Add Request and Connected Unit Button

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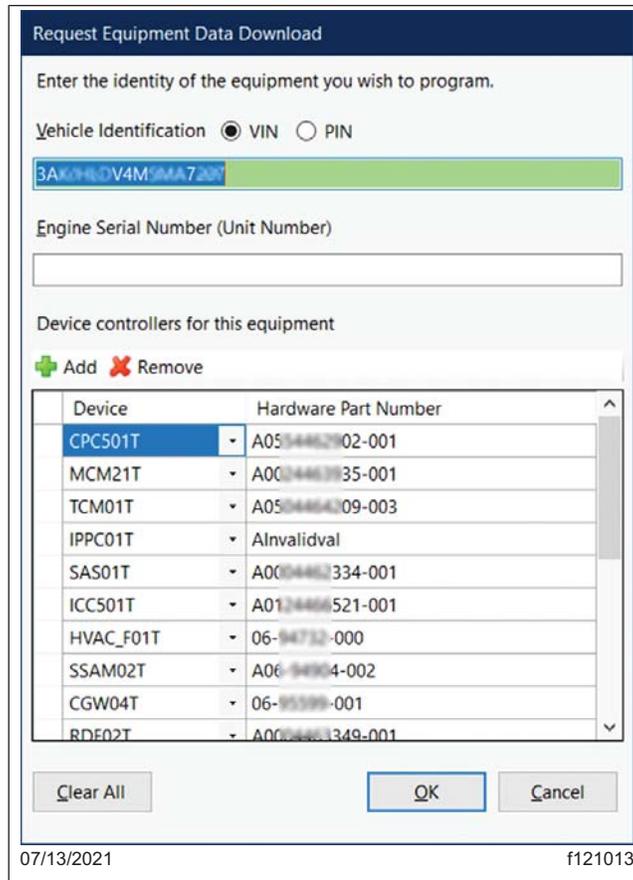


Fig. 6, Manually Connecting to DiagnosticLink

8. Select 'Connected Unit.' Make sure the VIN information populated in the center window is correct, then select 'Download data from server' at the lower left-hand side of the screen. See Fig. 7.

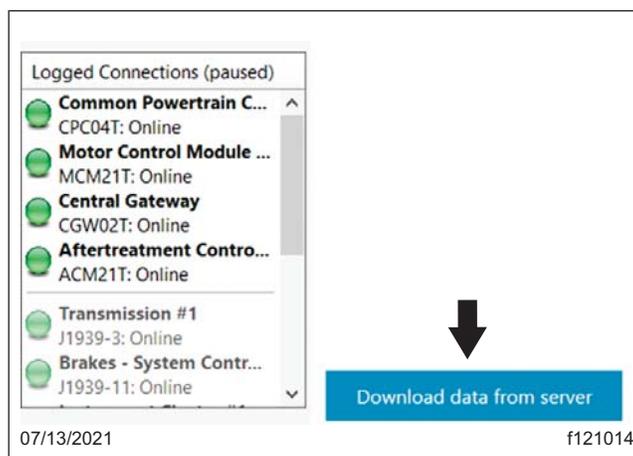


Fig. 7, Downloading Data from the Server

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NOTE: In some vehicles, the SSAM parameters **PACS_DiffLk_MaxEngSpeed** and **PACS_DiffLk_RA_DisengSpeed** may have already been updated to what is shown in step 9.

9. After the server data download is complete, go to the 'Parameters' tab, then set the two parameters of the SSAM02T ECU as follows.

- Set **PACS_DiffLk_MaxEngSpeed** to **A0284579658-001 PACS DiffLk MaxEngSpeed = 65534**. See [Fig. 8](#)

The screenshot shows the 'Parameters' tab in a diagnostic tool. The 'PACS_DiffLk_MaxEngSpeed' parameter is selected, and its value is being set to 'A0284579658-001 PACS DiffLk MaxEngSpeed = 65534'. A red box highlights the dropdown menu options, and a red arrow points to the selected option.

Parameter	Part	Value	Units	Minimum
ACS Rear Differential Locks	n/a			
PACS_rd_Reserved01_U16	n/a	0.0	mph	0.0
PACS_DiffLk_MaxEngSpeed	A0224432558-001	DiffLk MaxEngSpeed = 8	mph	0.0
PACS_DiffLk_RelEnggSpeed_RA	A0214439658-001	A0224432558-001 PACS DiffLk MaxEngSpeed = 8		0.0
PACS_DiffLk_MaxEngSpeed_RA	n/a	A0284579658-001 PACS DiffLk MaxEngSpeed = 65534		0.0
PACS_DiffLkRA_enggSpeed	n/a	40720.9	mph	0.0
PACS_DiffLk_RA_DisenggSpeed	A0214439758-001	24.9	mph	0.0
PACS_DiffLk_FeedbSwRA1	A0294571858-001	Use Hardware Pin		
PACS_DiffLk_FeedbSwRA2	A0294572158-001	Use Hardware Pin		
PACS_DiffLk_FeedbSwRA3	A0294572358-001	No Feedback		
PACS_RA_switch_type	n/a	No switch available		
PACS_RA2_switch_type	n/a	No switch available		
PACS_DiffLk_Buzzer	A0154431158-001	Disabled		
PACS_DiffLk_solenoid_RA	A0154436558-001	present		
PACS_DiffLk_Solenoid_RA2	A0154439458-001	Not present		
PACS_DiffLk_Solenoid_RA3	A0154439658-001	Not present		
PACS_DiffLckSW_Var_DTNA	A0154439958-001	RA_Indp_Momentary_Sw		
PACS ASR engage Rq RA1	n/a	Deactivate(d)		

08/31/2021 f121052

Fig. 8, Setting Parameter **PACS_DiffLk_MaxEngSpeed**

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- Set **PACS_DiffLk_RA_DissenggSpeed** to **A0284579758-001 PACS DiffLk RA DissenggSpeed = 65534**. See **Fig. 9**.

Parameter	Part	Value	Units	Minimum
ACS Rear Differential Locks	n/a			
PACS_rd_Reserved01_U16	n/a	0.0	mph	0.0
PACS_DiffLk_MaxEngSpeed	A0224432558-001	5.0	mph	0.0
PACS_DiffLk_RelEnggSpeed_RA	A0214439658-001	40720.9	mph	0.0
PACS_DiffLk_MaxEnggSpeed_RA	n/a	40720.9	mph	0.0
PACS_DiffLkRA_enggSpeed	n/a	40720.9	mph	0.0
PACS_DiffLk_RA_DissenggSpeed	A0214439758-001	RA DissenggSpeed = 40	mph	0.0
PACS_DiffLk_FeedbSwRA1	A0294571858-001	A0214439758-001 PACS DiffLk RA DissenggSpeed = 40		
PACS_DiffLk_FeedbSwRA2	A0294572158-001	A0284579758-001 PACS DiffLk RA DissenggSpeed = 65534		
PACS_DiffLk_FeedbSwRA3	A0294572358-001	No Feedback		
PACS_RA_switch_type	n/a	No switch available		
PACS_RA2_switch_type	n/a	No switch available		
PACS_DiffLk_Buzzer	A0154431158-001	Disabled		
PACS_DiffLk_solenoid_RA	A0154436558-001	present		
PACS_DiffLk_Solenoid_RA2	A0154439458-001	Not present		
PACS_DiffLk_Solenoid_RA3	A0154439658-001	Not present		
PACS_DiffLckSW_Var_DTNA	A0154439958-001	RA_Indp_Momentary_Sw		

Fig. 9, Setting Parameter PACS_DiffLk_RA_DissenggSpeed

10. Select the 'Send' button to write the parameter changes to the sSAM ECU in the vehicle.
11. Once the parameter write is complete, go to the 'Program Device' tab and verify there is a pending upload.
 - If there is a pending upload, select 'Connect to Server' to upload the parameter updates to the server.
 - If there is no pending upload, go to the 'Parameters' tab, then select 'Refresh.' Verify the parameters are set as shown in step 9. Go to 'Program Device,' there should now be a pending upload. Select 'Connect to Server' to upload the parameter updates to the server.
12. Once the parameter updates are uploaded to the server, disconnect the vehicle from DiagnosticLink.
13. Clean a spot on the base label (Form WAR259), write the campaign number, SF636, on a blank red completion sticker (Form WAR260), and attach it to the base label, indicating this work has been completed.