

# Detroit New Final Drive (NFD) Rear Axle Temperature Parameters

## 54-345

**Cascadia**  
**Cargo**  
**FLB COE**  
**Business Class M2**  
**108SD/114SD**  
**Century Class Conventional**  
**Business Class**

**Columbia**  
**FLD Conventional**  
**FLA COE**  
**> New Cascadia**  
**FLC 112 Conventional**  
**Argosy**  
**122SD and Coronado**

**Freightliner Service**  
**Bulletin**

## General Information

Some New Cascadia trucks equipped with Detroit Diesel New Final Drive (NFD) axles have a high temperature warning parameter. The warning is set too low for some applications, and under certain conditions that are not harmful to the axle, the high temperature warning will appear on the dash and indicate an error requiring service. If a truck comes in with a complaint of a high temperature warning that displays when the axle is not above the maximum temperature cited in the Driver's Manual, the temperature parameters can be changed using DiagnosticLink®.

## Changing Rear Axle Temperature Parameters With DiagnosticLink

1. Park the vehicle on a level surface, shut down the engine, and apply the parking brake. Chock the tires.
2. Connect an RP1210B-compliant vehicle diagnostic adaptor to the laptop and the vehicle diagnostic port.
3. From the laptop, open DiagnosticLink.
4. Ensure that DiagnosticLink is updated to the latest version (8.14 at time of publication). To update DiagnosticLink, select 'Update' from the dropdown menu under 'Tools.' Select 'Program Device.' See Fig. 1 .

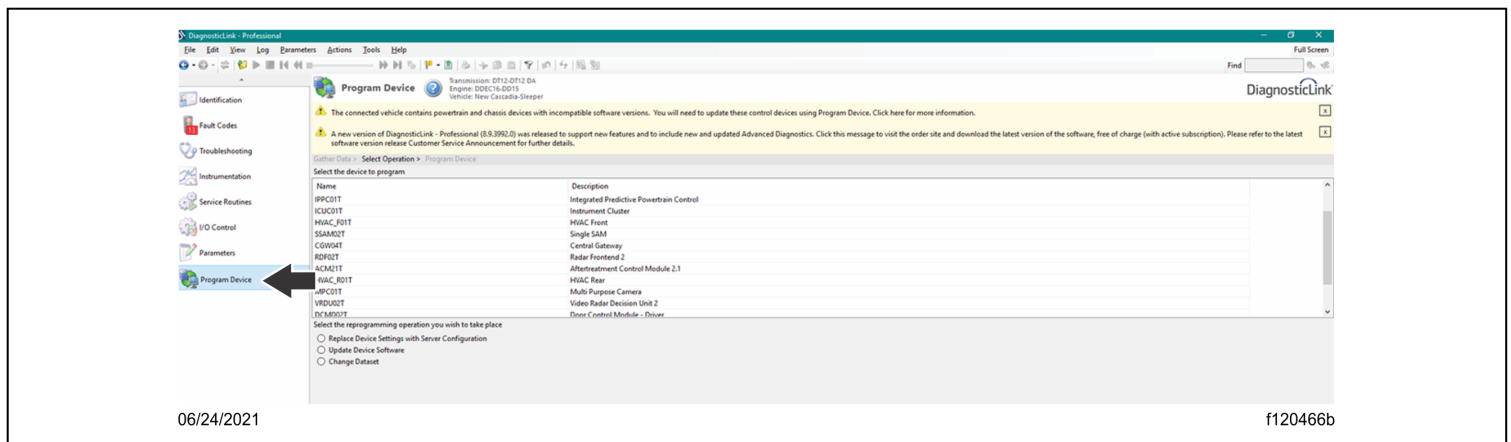


Fig. 1, Updating DiagnosticLink

5. If there are any items in the section 'Request Pending' downloads, they must be removed. To remove them, select each 'Request Pending' list item, then select 'Remove.' See Fig. 2 .

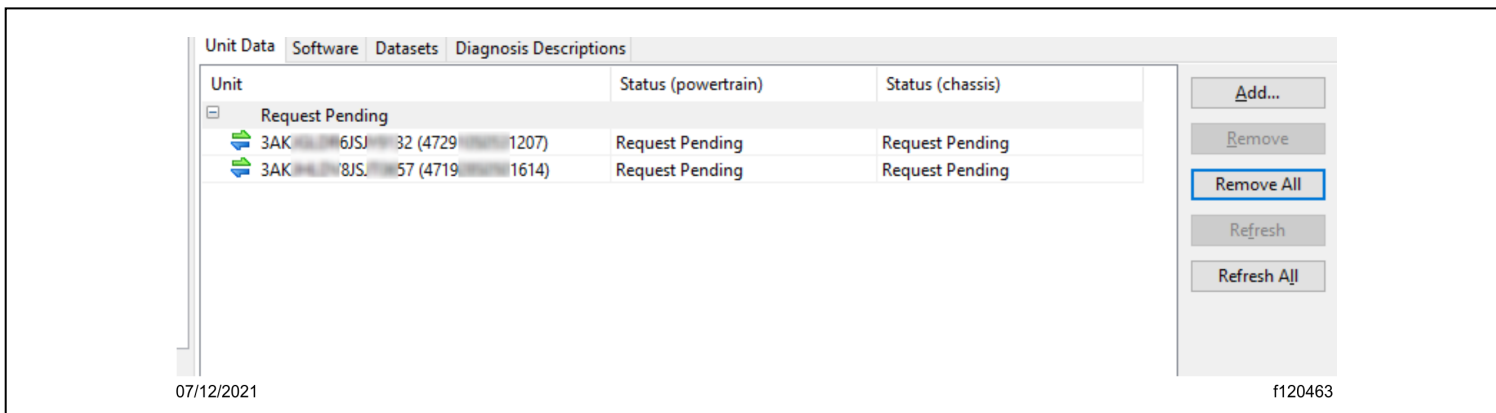


Fig. 2, Selecting Program Device in DiagnosticLink

6. Select 'Gather server data' and select the vehicle identification number (VIN). Then select 'Download data from server.' See Fig. 3 .

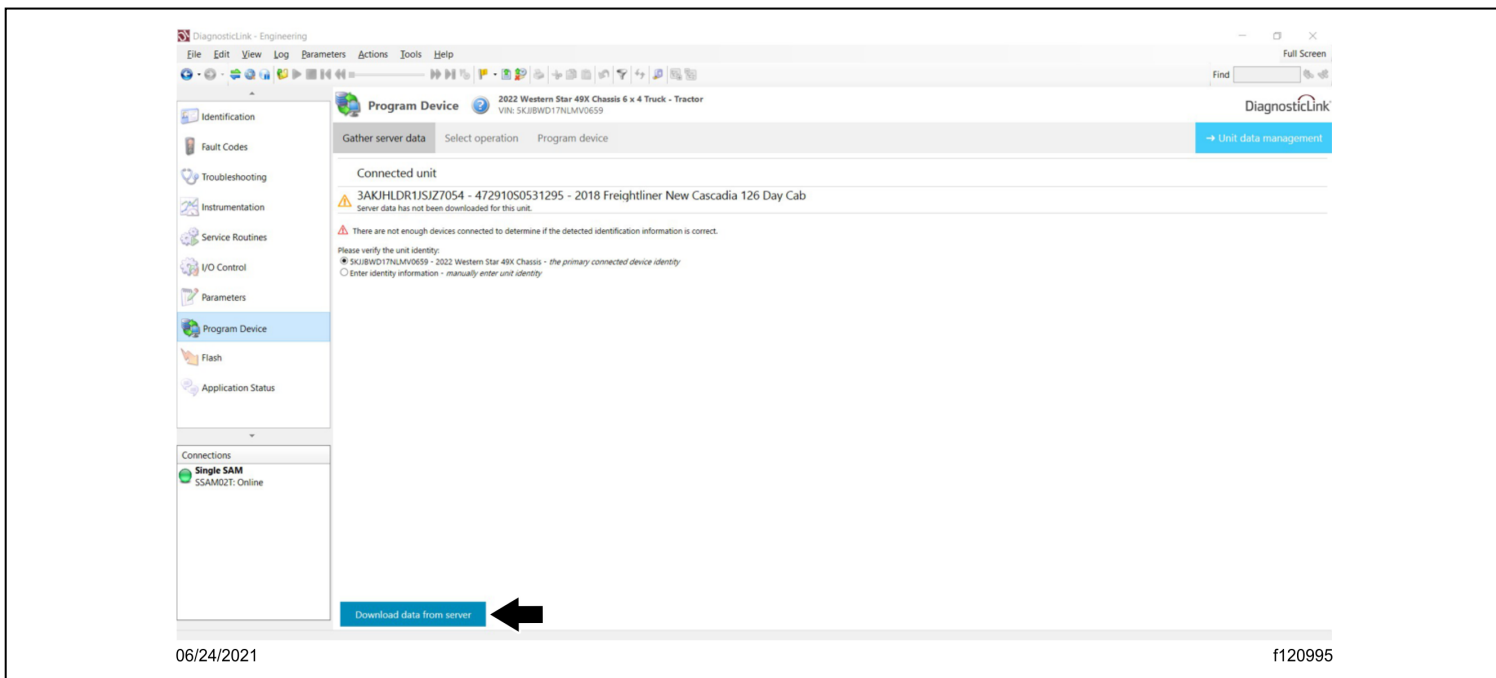
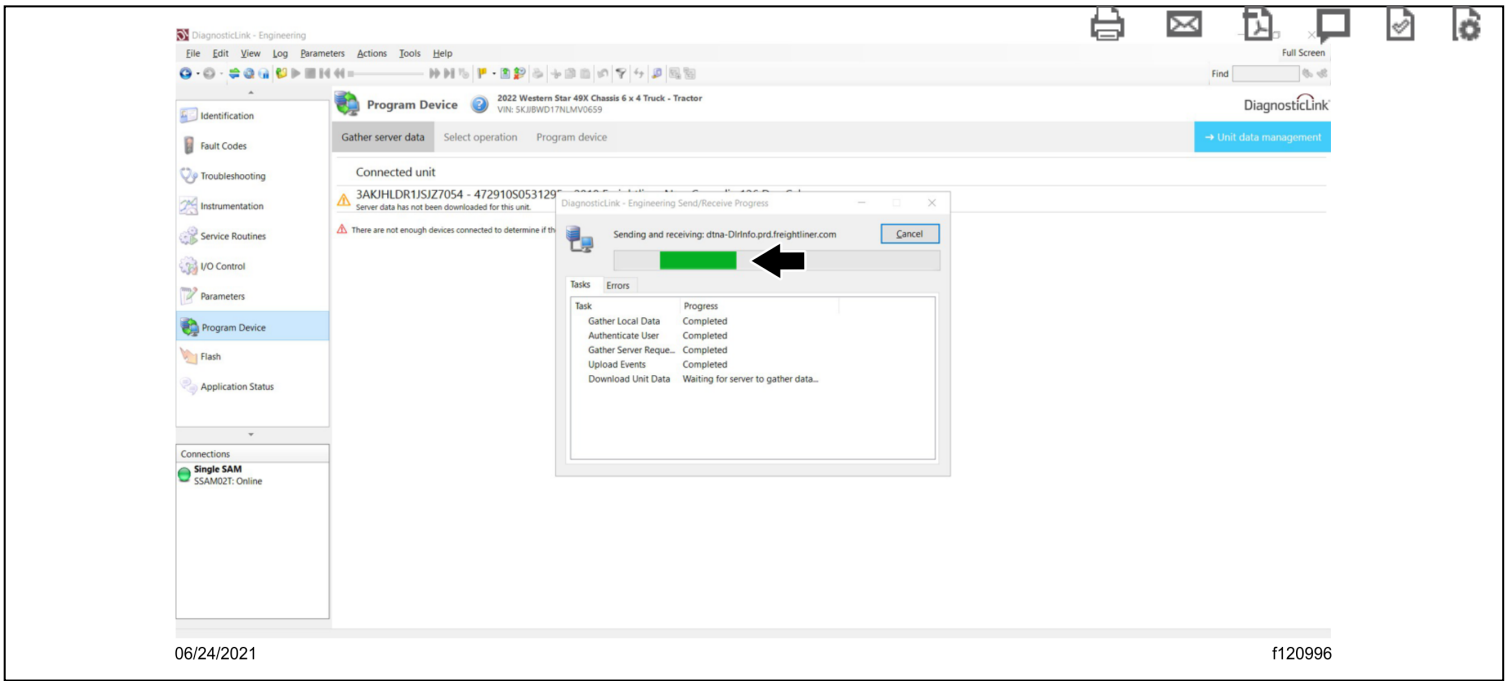


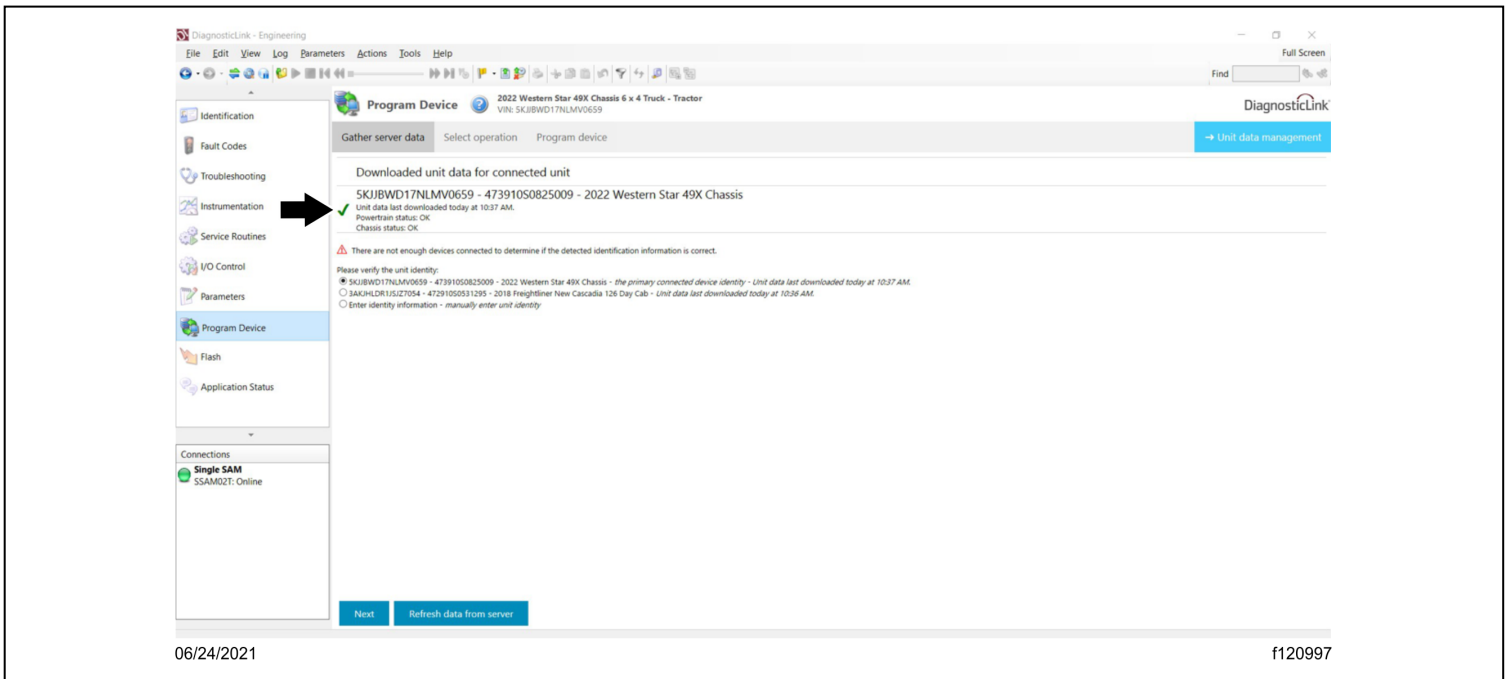
Fig. 3, Downloading Data from the Server

7. A dialog will appear with a progress animation as the software is updated. See Fig. 4 .



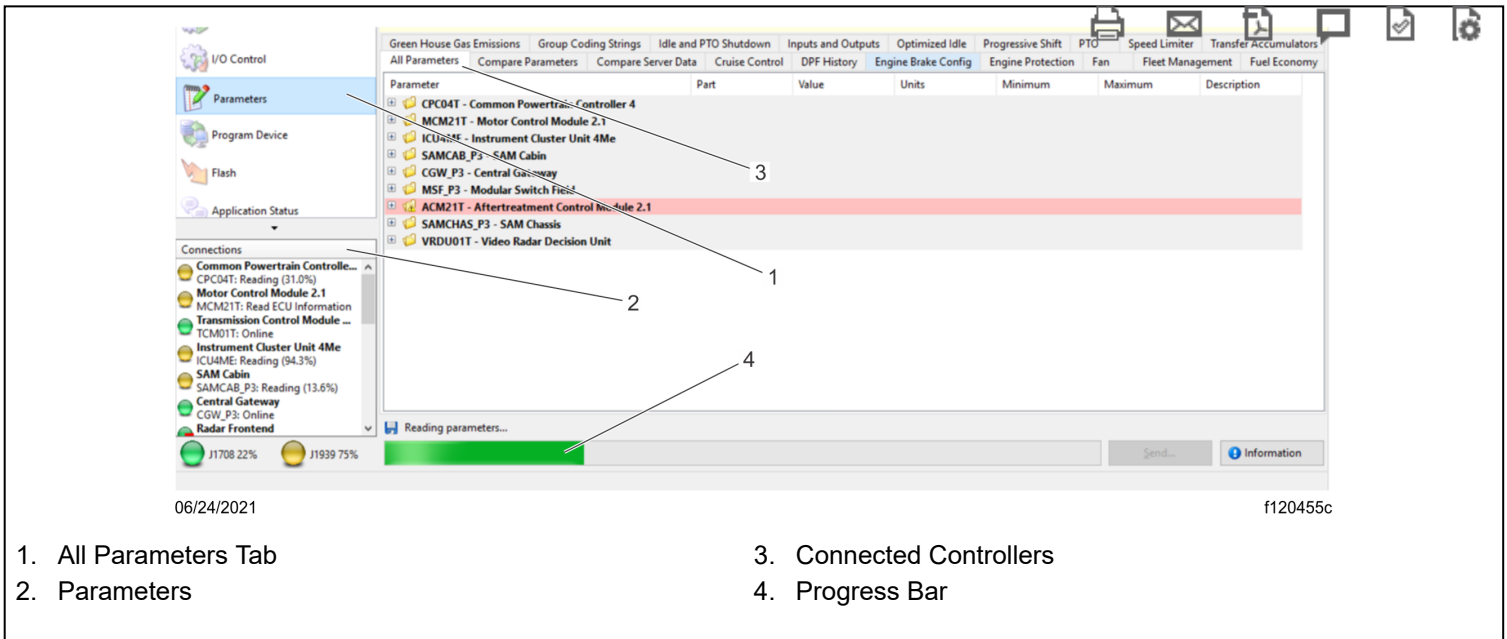
**Fig. 4, Server Gathering Information, Screen 1**

8. When the data download is complete, a green check mark will appear next to the VIN on the gather server data screen. See Fig. 5 .



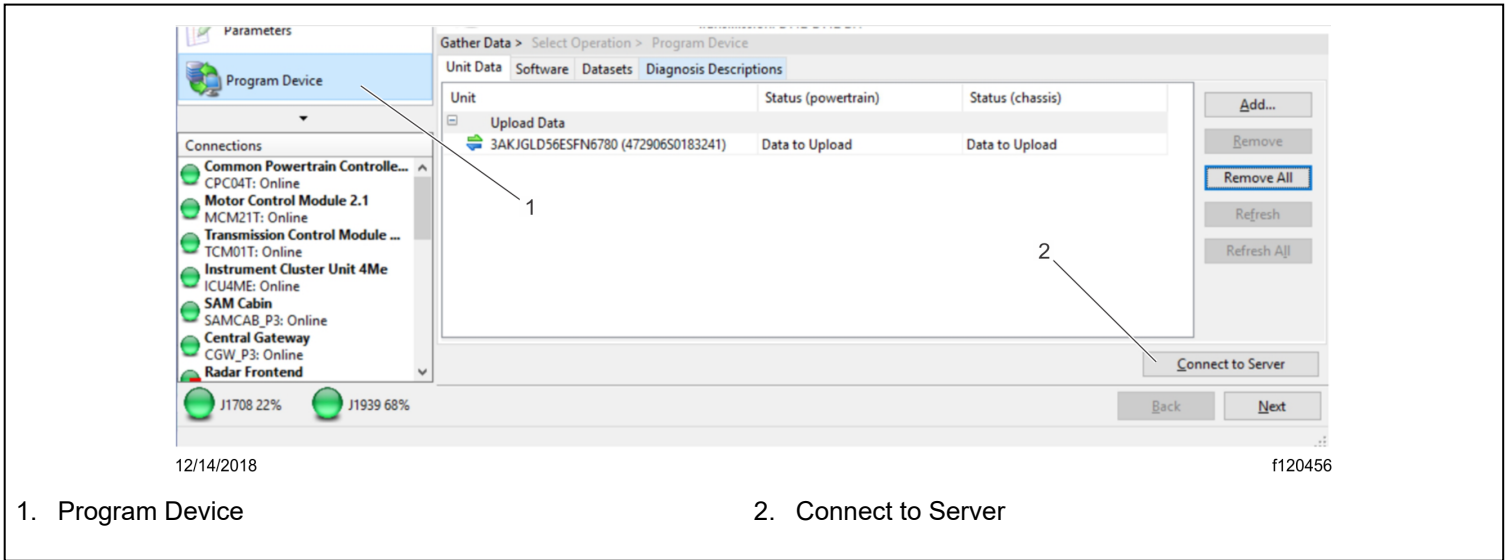
**Fig. 5, Server Download Confirmation Screen**

9. Select 'Parameters,' shown in Fig. 6, item 2. Once all controllers are connected, as shown in Fig. 6, item 3, select the 'All Parameters' tab, shown in Fig. 6, item 1, to read the vehicle parameters. A green progress bar will appear at the bottom of the screen. See Fig. 6, item 4.



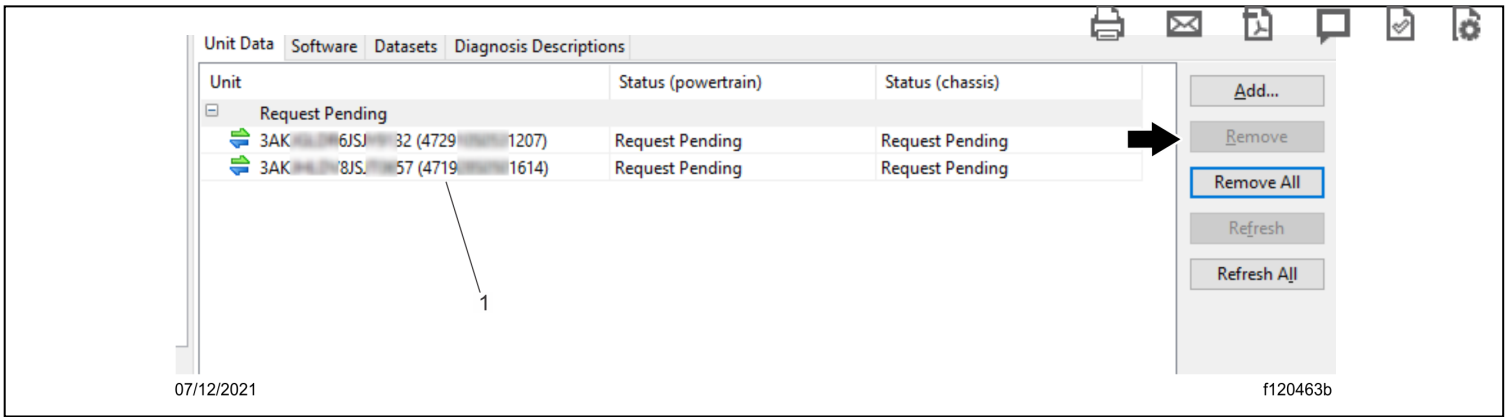
**Fig. 6, Server Gathering Information, Screen 2**

10. Select 'Program Device.' See Fig. 7, item 1. There should be data to upload. Select 'Connect to Server' to upload vehicle parameters to the server. See Fig. 7, item 2.



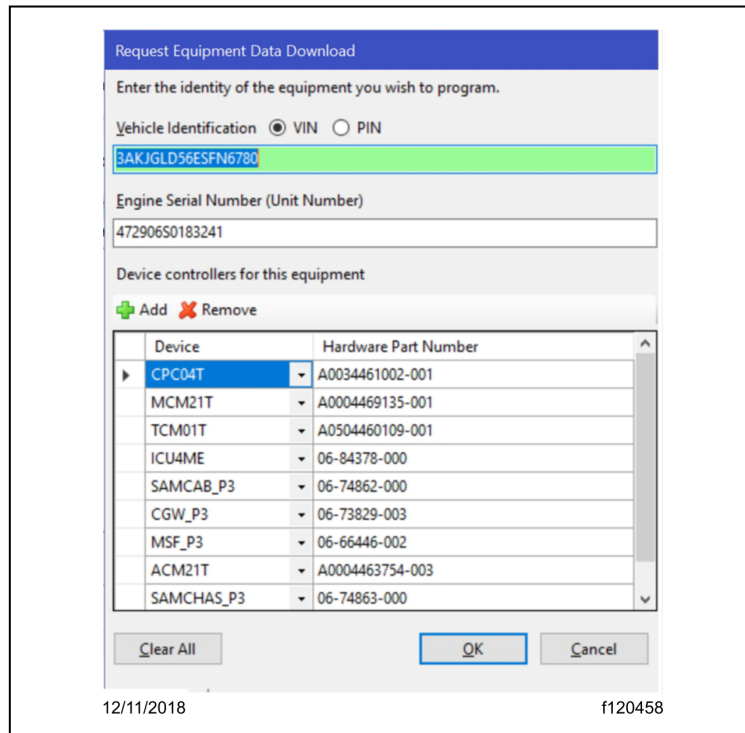
**Fig. 7, Connecting to Server Screen**

11. If there are any items in the section 'Request Pending' downloads, they must be removed. To remove them, select each 'Request Pending' list item then select 'Remove.' See Fig. 8 .



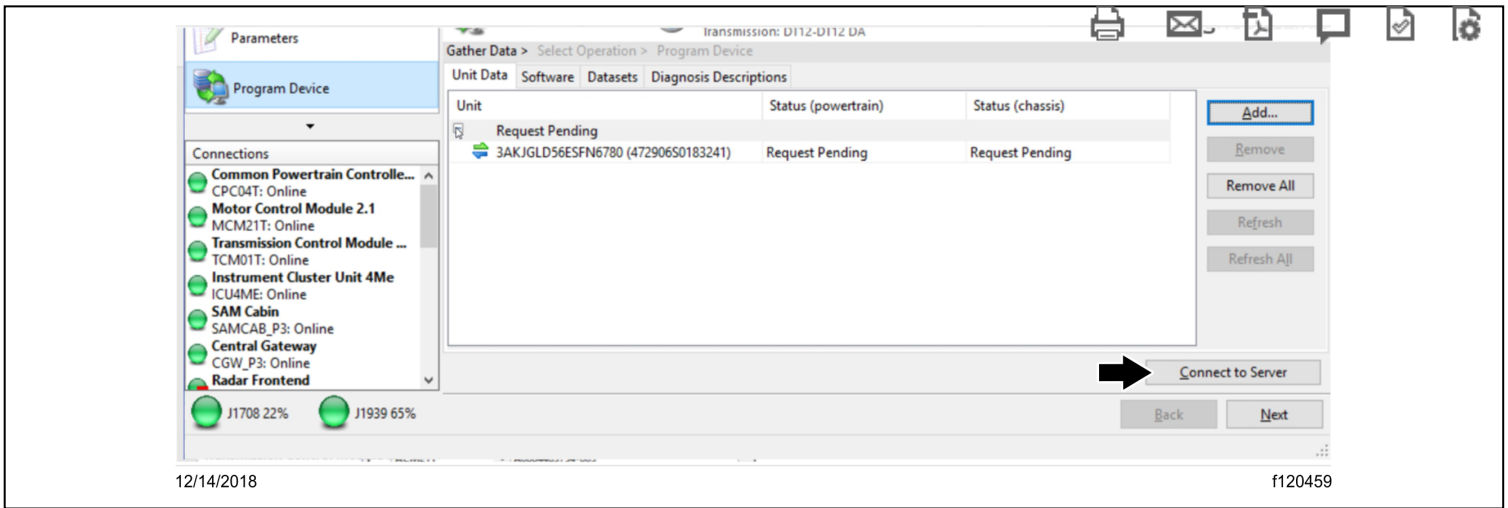
**Fig. 8, Removing Old Pending Requests**

12. Make sure the correct VIN and hardware is populated, then select 'OK.' See Fig. 9 .



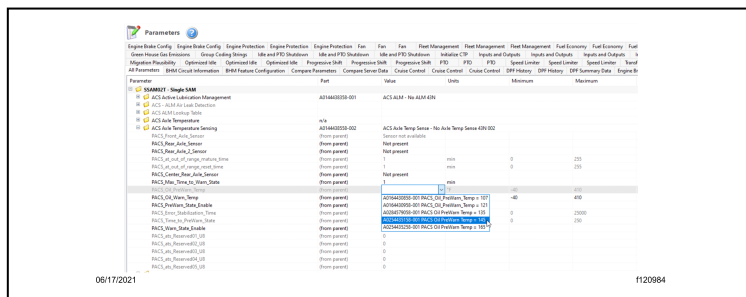
**Fig. 9, Verifying VIN and Hardware Numbers**

13. A 'Request Pending' status for the VIN appears in the Unit Data window. Select 'Connect to server' to download the updated unit data. See Fig. 10 .



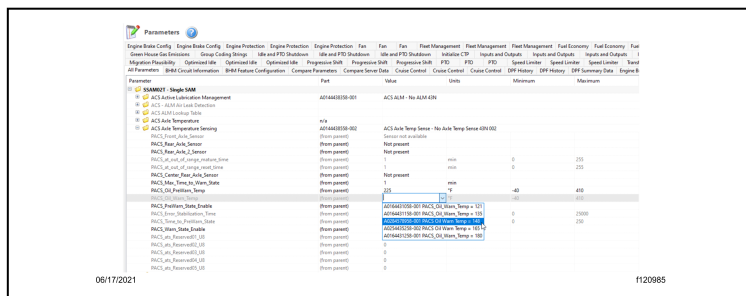
**Fig. 10, Connecting to the Server to Download Data**

14. In the list of parameters, locate 'PACS\_Oil\_PreWarn\_Temp.' Expand the drop-down menu in the 'Value' column. Select the value, 'A0254435158-001 PACS\_OIL\_PREWARN\_TEMP = 145.' See Fig. 11 .



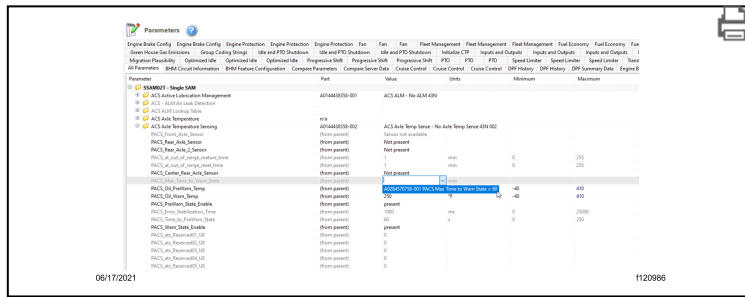
**Fig. 11, Changing the Oil Pre-Warning Temperature Parameter Screen**

15. In the list of Parameters, locate 'PACS\_Oil\_Warn\_Temp.' Expand the drop-down menu in the 'Value' column. Select the value, 'A0284578958-001 PACS\_OIL\_WARN\_TEMP = 148.' See Fig. 12 .



**Fig. 12, Changing the Oil Warning Temperature Parameter Screen**

16. In the list of Parameters, locate 'PACS\_Max\_Time\_to\_Warn\_State.' Expand the dropdown in the Value column. Select the value, 'A0284570758-001 PACS\_MAX\_TIME\_TO\_WARN\_STATE = 60.' See Fig. 13 .



**Fig. 13, Changing the Max Time to Warn Parameter**

17. Select 'SEND' and then select 'OK' to confirm the changes.
18. Select 'Program Device.' See Fig. 7, item 1. There should be data to upload. A 'Data to Upload' item appears in the 'Unit Data' window. Select 'Connect to Server' to upload vehicle parameters to the server. See Fig. 7, item 2.

## Warranty

This procedure is warrantable only if the described condition exists and the repair is performed within the applicable base or extended coverage warranty period. If a failure is not found, this procedure is considered preventive and warranty does not apply. Normal warranty applies. See Table 1 for OWL VMRS codes and labor allowance information. Enter this service bulletin number in the *Service Bulletin #* field.

OWL VMRS Codes and Labor Allowance						
Primary Failed Part	Component Code	Cause Code	Correction Code	SRT Code	Description	Time: Hours
A66-10744-002	003-006-008	93	23	32A-5004A	PARAMETER, AXLE TEMP CHANGE SSAM, (SB54-345)	0.3

**Table 1, OWL VMRS Codes and Labor Allowance**