

FLA COE  
FLB COE  
FLD Conventional  
Business Class  
FLC 112 Conventional

Century Class Conventional  
Argosy  
Cargo  
Columbia  
122SD and Coronado

Business Class M2  
Cascadia  
108SD/114SD  
> New Cascadia

**Freightliner  
Service Bulletin**

## General Information

New Cascadia trucks built from January 1, 2017 through September 9, 2019 and equipped with Detroit Assurance correctly initiate an active brake assist (ABA) event when a vehicle or obstacle is detected in front of the truck. Some of those trucks may continue decelerating to a complete stop, even after the vehicle or obstacle detected in front of the Detroit Assurance-equipped truck has moved away. If a customer describes this series of events, the truck can be updated to Detroit Assurance 4.0. This procedure is performed using DiagnosticLink®.

## Changes in Detroit Assurance 4.0 Software, v20.05

Detroit Assurance 4.0 software v20.05 modifies the ABA behavior. If the vehicle triggering the ABA event is no longer detected in front of the truck, the ABA event is immediately cancelled, even if the truck has not come to a complete stop.

## VRDU02T Hardware and Software Update Paths

The following table outlines the update paths for Detroit Assurance software. See [Fig. 1](#).

| VRDU02T Software Updates |                 |                                                                                      |                 |                 |  |
|--------------------------|-----------------|--------------------------------------------------------------------------------------|-----------------|-----------------|--|
| Latest / Factory         |                 | Update Paths                                                                         | Newest          |                 |  |
| Hardware                 | Software        |                                                                                      | Hardware        | Software        |  |
| A0004463551 001          | A0004485951 001 |  | A0004463551 001 | A0004489851 001 |  |
| A0004464251 001          | A0004485951 001 |  | A0004464251 001 | A0004489851 001 |  |
| A0004464251 003          | A0004485951 001 |  | A0004464251 003 | A0004489851 001 |  |
| A0004465151 001          | A0004487251 001 |  | A0004465151 001 | A0004489851 001 |  |
| A0004465151 002          | A0004487251 001 |  | A0004465151 002 | A0004489851 001 |  |

05/07/2021

f120933

**Fig. 1, VRDU02T Hardware and Software Update**

## Programming VRDU02T With Diagnostic Link

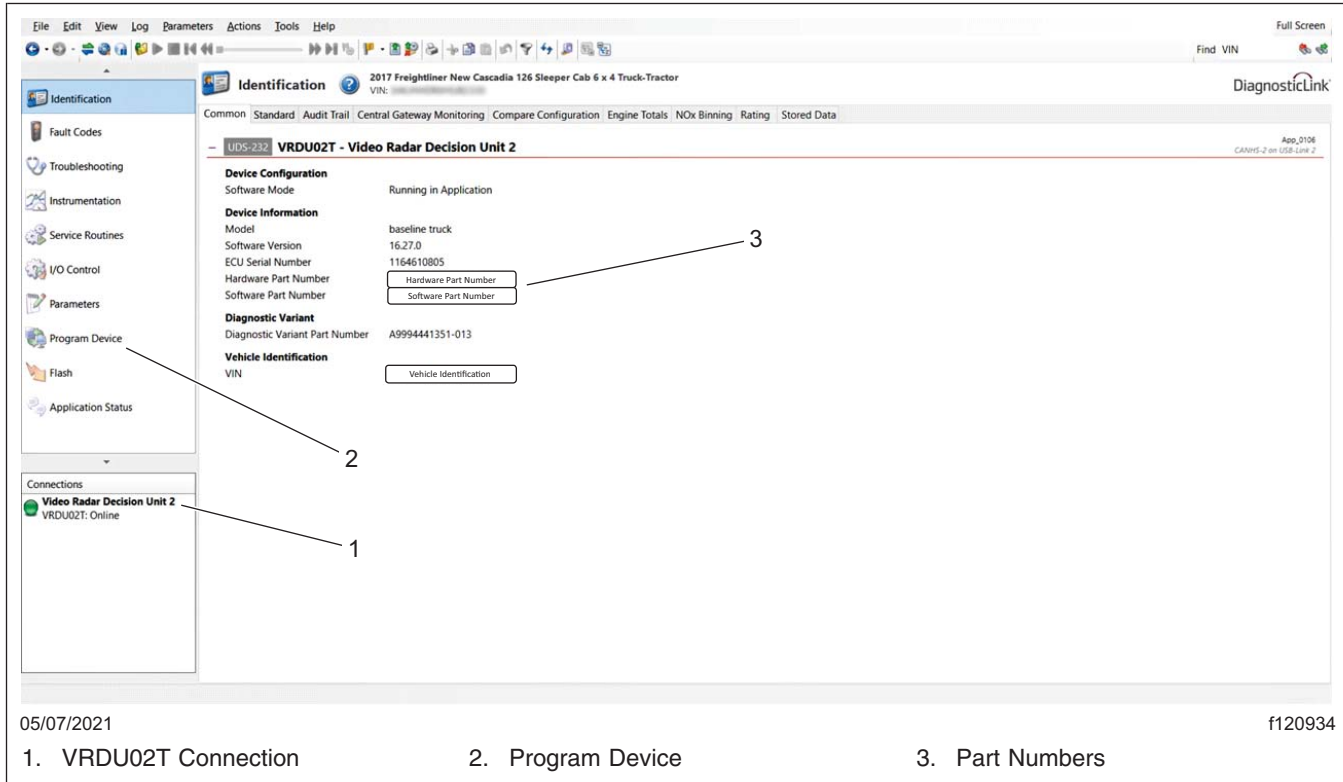
1. Park the vehicle on a level surface, shut down the engine, and apply the parking brake. Chock the tires.
2. Connect an RP1210B-compliant vehicle diagnostic adaptor to the laptop and the vehicle diagnostic port.
3. Turn the ignition to the ON position.
4. Verify that vehicle has sufficient battery power before starting the procedure.
5. From the laptop, open DiagnosticLink.
6. Ensure that VRDU02T is connected and online. See [Fig. 2](#), item 2.
7. Select 'Program Device'.
8. Find the VRDU02T hardware and software part numbers which display on their respective lines under 'Device Information'.

## Freightliner Service Bulletin

FLA COE  
FLB COE  
FLD Conventional  
Business Class  
FLC 112 Conventional

Century Class Conventional  
Argosy  
Cargo  
Columbia  
122SD and Coronado

Business Class M2  
Cascadia  
108SD/114SD  
> New Cascadia



**Fig. 2, VRDU02T Part Numbers**

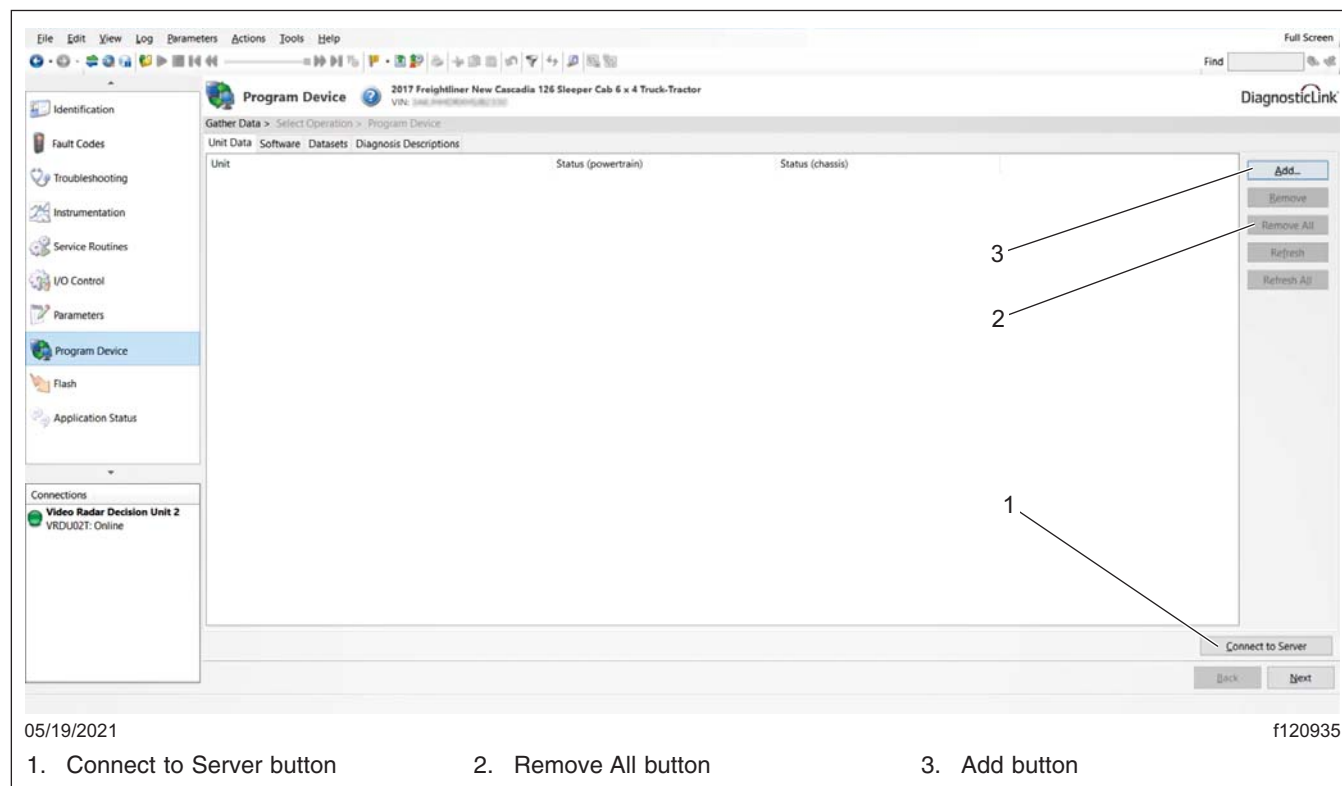
9. Select 'Connect to Server' to upload any pending data. See [Fig. 3](#).
10. Select 'Remove All' to clear the vehicle identification (VIN) link from the program device tab, then select 'Add'. See [Fig. 3](#), item 2 and item 3.
11. Select 'Add.'

FLA COE  
FLB COE  
FLD Conventional  
Business Class  
FLC 112 Conventional

Century Class Conventional  
Argosy  
Cargo  
Columbia  
122SD and Coronado

Business Class M2  
Cascadia  
108SD/114SD  
> New Cascadia

**Freightliner  
Service Bulletin**



**Fig. 3, Connecting to Server**

12. The VIN should appear in the 'Vehicle Identification' field. See [Fig. 4](#), item 1. If it does not appear, manually enter the VIN.
13. The VRDU02T hardware part number should appear in the 'Hardware Part Number' field. See [Fig. 4](#), item 2.

**Freightliner  
Service Bulletin**

FLA COE  
FLB COE  
FLD Conventional  
Business Class  
FLC 112 Conventional

Century Class Conventional  
Argosy  
Cargo  
Columbia  
122SD and Coronado

Business Class M2  
Cascadia  
108SD/114SD  
> New Cascadia

Request Equipment Data Download

Enter the identity of the equipment you wish to program.

Vehicle Identification ☒ VIN ☐ PIN

Vehicle Identification Number

Engine Serial Number (Unit Number)

Device controllers for this equipment

+ Add - Remove

| Device  | Hardware Part Number |
|---------|----------------------|
| VRD102T | Hardware Part Number |

1

2

Clear All OK Cancel

05/19/2021 f120936

1. Vehicle Identification Number (VIN)  
2. Hardware Part Number

**Fig. 4, Verifying the VIN and Hardware Part Number**

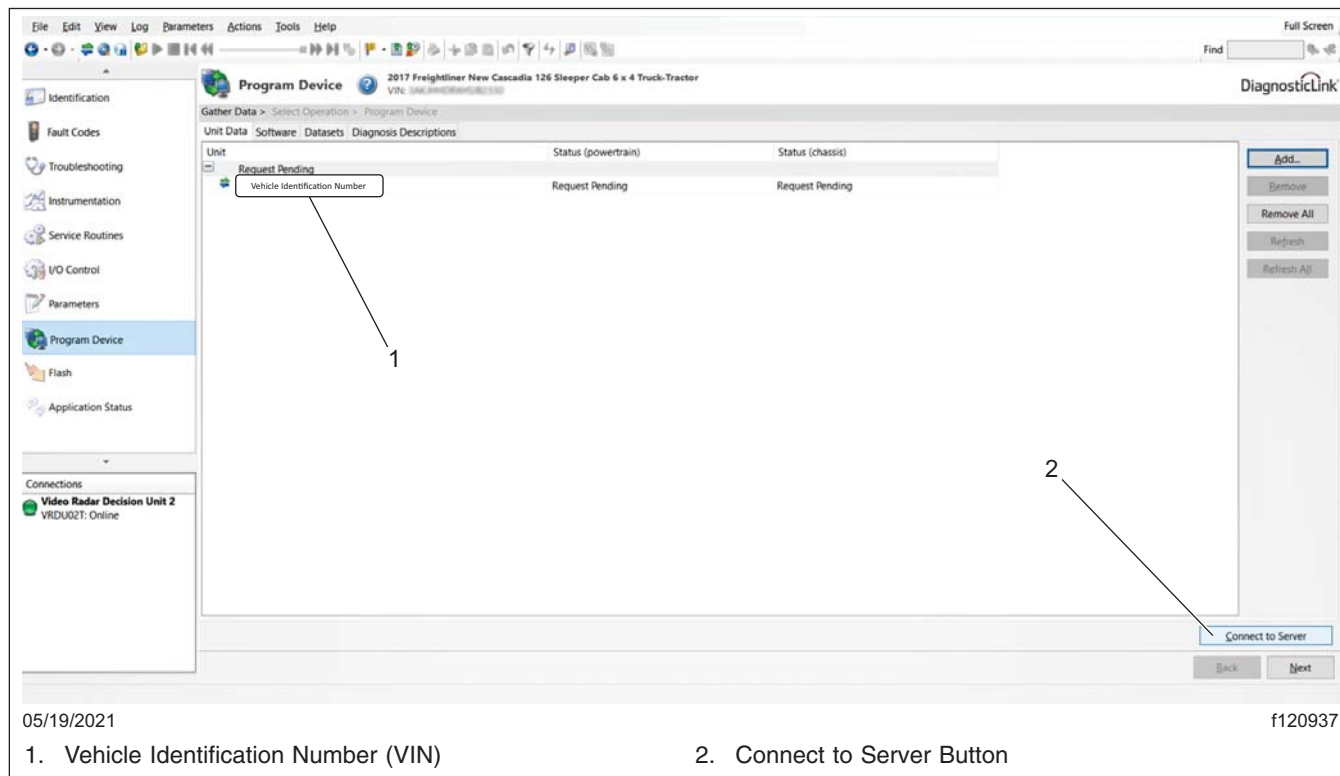
14. The VIN will appear under 'Request Pending.' See [Fig. 5](#), item 1.
15. Select 'Connect to Server,' shown in [Fig. 5](#), item 2.

FLA COE  
FLB COE  
FLD Conventional  
Business Class  
FLC 112 Conventional

Century Class Conventional  
Argosy  
Cargo  
Columbia  
122SD and Coronado

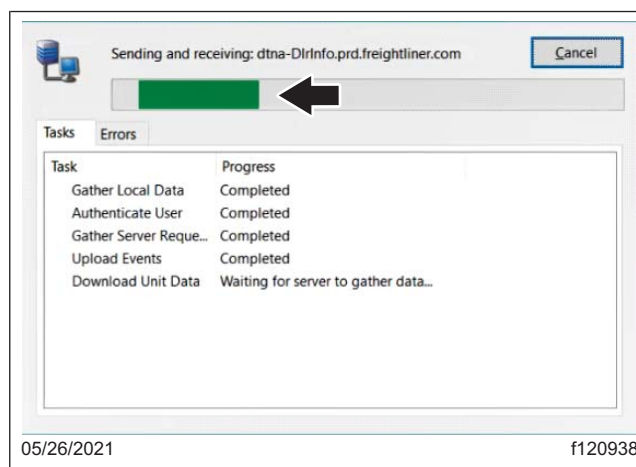
Business Class M2  
Cascadia  
108SD/114SD  
> New Cascadia

**Freightliner  
Service Bulletin**



**Fig. 5, Request Pending**

16. A window will appear with a progress bar as vehicle data is retrieved from the server. See [Fig. 6](#).



**Fig. 6, Progress Bar**

17. An 'OK' status, as shown in [Fig. 7](#), indicates that there are no issues with vehicle data.

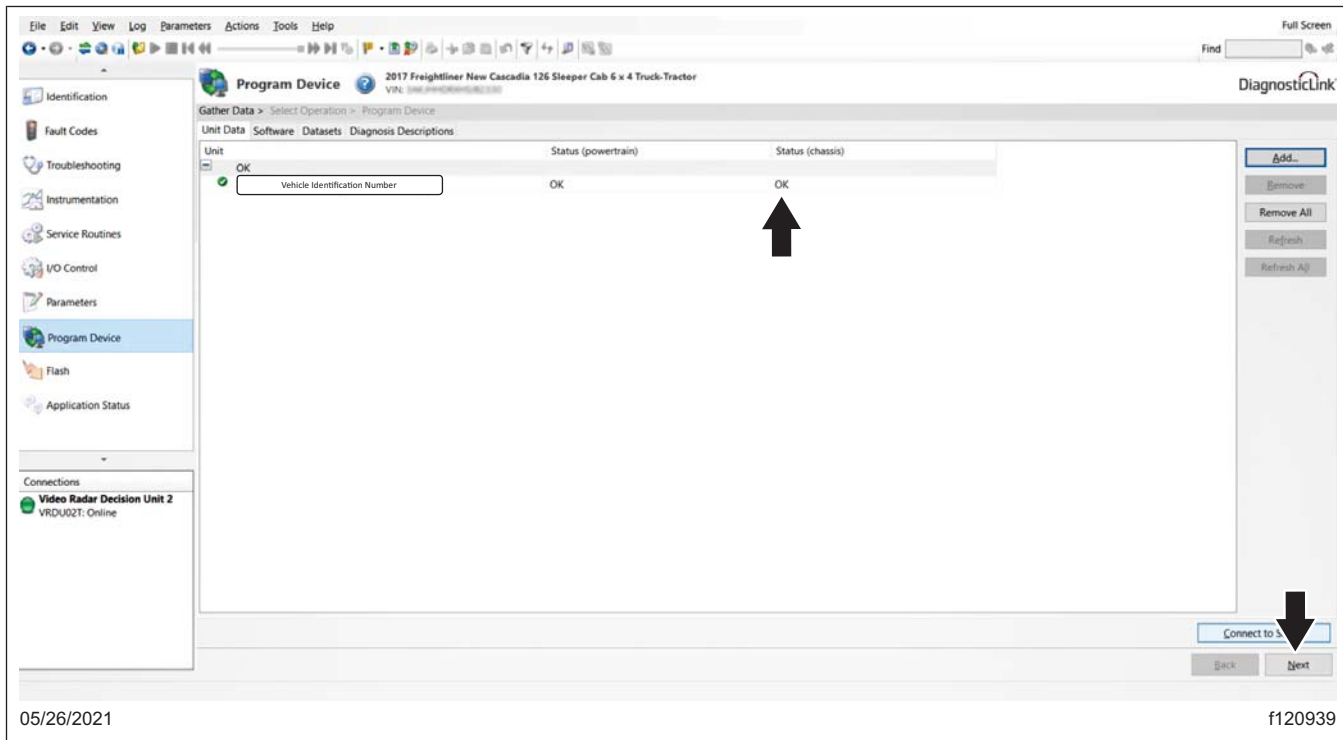
18. Select 'Next' in the lower-right corner. See [Fig. 7](#).

## Freightliner Service Bulletin

FLA COE  
FLB COE  
FLD Conventional  
Business Class  
FLC 112 Conventional

Century Class Conventional  
Argosy  
Cargo  
Columbia  
122SD and Coronado

Business Class M2  
Cascadia  
108SD/114SD  
> New Cascadia



**Fig. 7, Unit Status Screen**

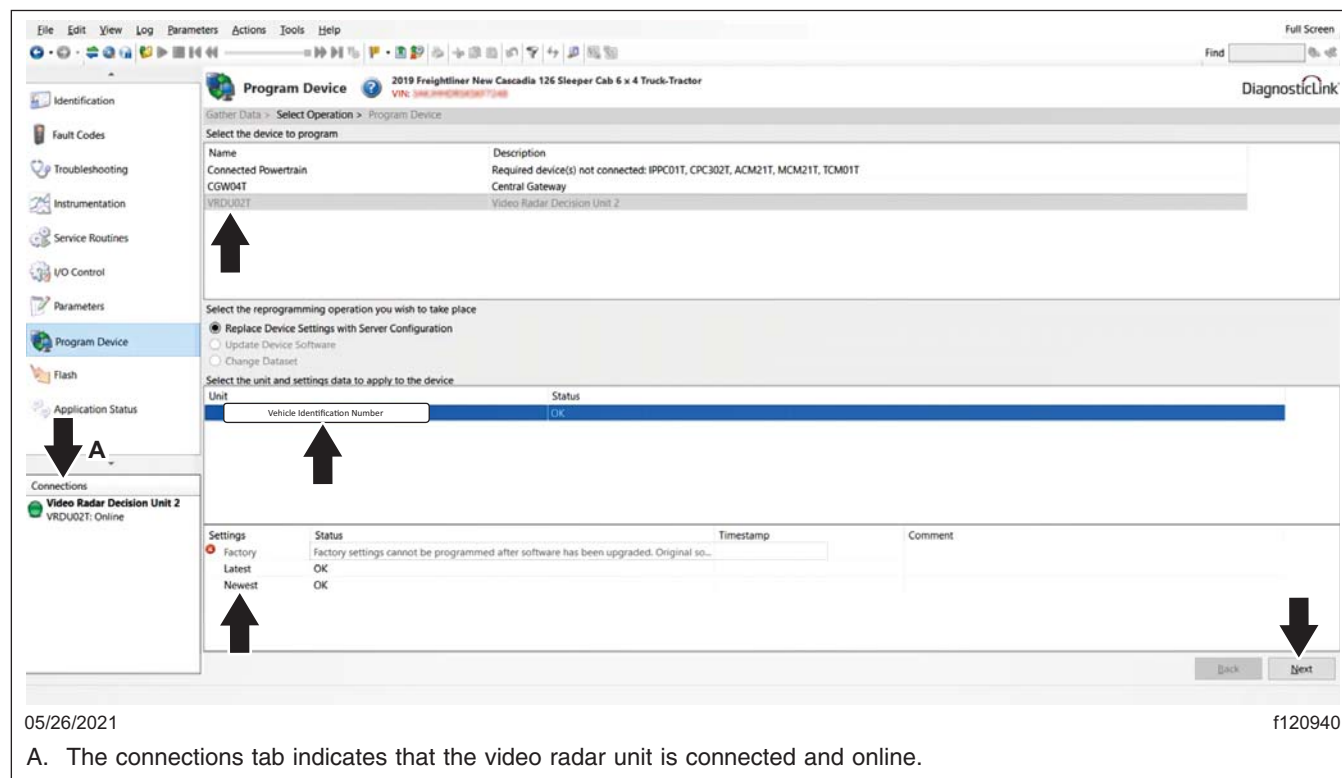
19. Select VRDU02T under 'Select the device to program,' shown in [Fig. 8](#). If VRDU02T is not available, ensure that the video radar unit is connected and online in the 'Connections' tab at the bottom left. See [Fig. 8](#), ref. A.
20. Select the VIN under 'Select the unit and setting data to apply to the device.' See [Fig. 8](#).
21. Select 'Newest' as the data to apply to the device. See [Fig. 8](#). If 'Newest' is not available, select 'Latest.'
22. Select 'Next.' See [Fig. 8](#).

FLA COE  
FLB COE  
FLD Conventional  
Business Class  
FLC 112 Conventional

Century Class Conventional  
Argosy  
Cargo  
Columbia  
122SD and Coronado

**Business Class M2  
Cascadia  
108SD/114SD  
> New Cascadia**

# Freightliner Service Bulletin



**Fig. 8, Programming Screen**

23. Vehicle software part numbers appear under 'Configuration' as shown in [Fig. 9](#). Verify that the 'Current' software part number in [Fig. 9](#) reflects the correct software update path as shown in the left columns of [Fig. 1](#).

Verify that the 'Target' software part number reflects the correct software update path as seen in the right columns of [Fig. 1](#).

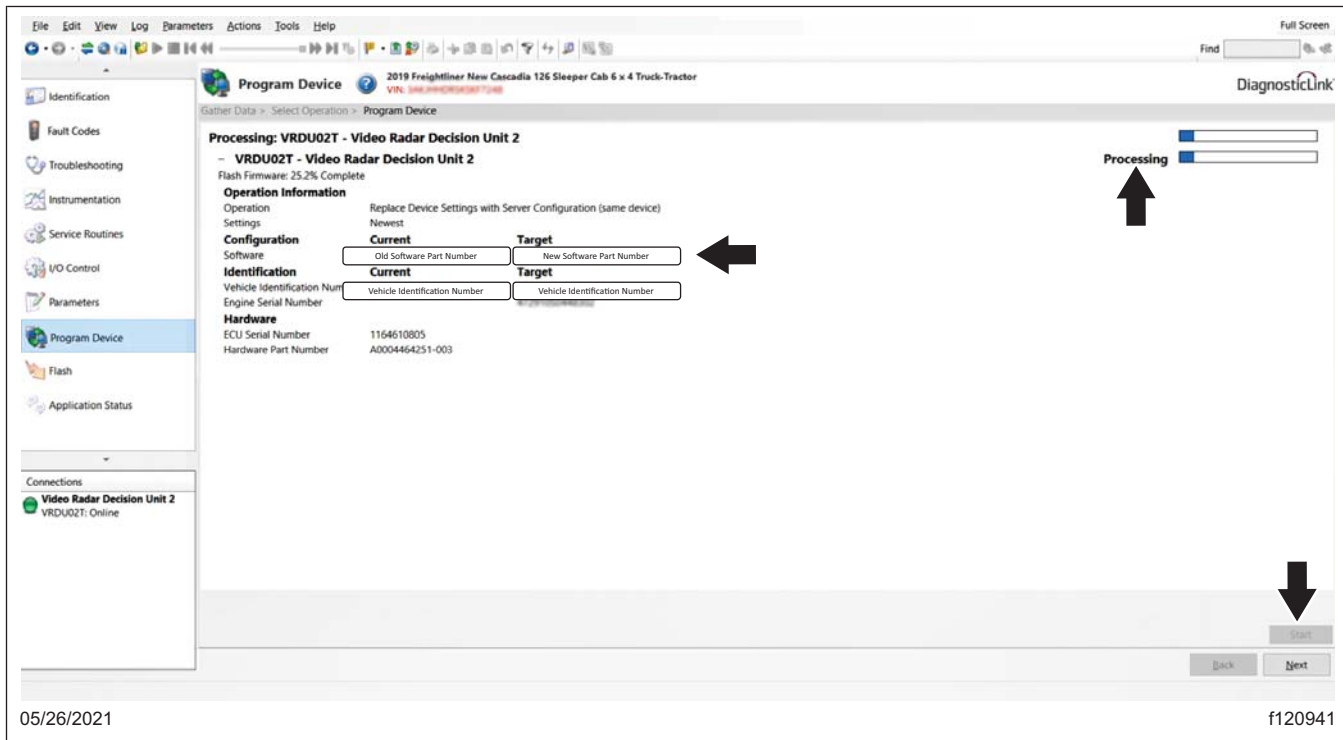
24. Select 'Start.' See [Fig. 9](#).
25. Processing progress bars will appear as the software is updated. See [Fig. 9](#). During the update process do not unplug the laptop from the vehicle or close DiagnosticLink.

## Freightliner Service Bulletin

FLA COE  
FLB COE  
FLD Conventional  
Business Class  
FLC 112 Conventional

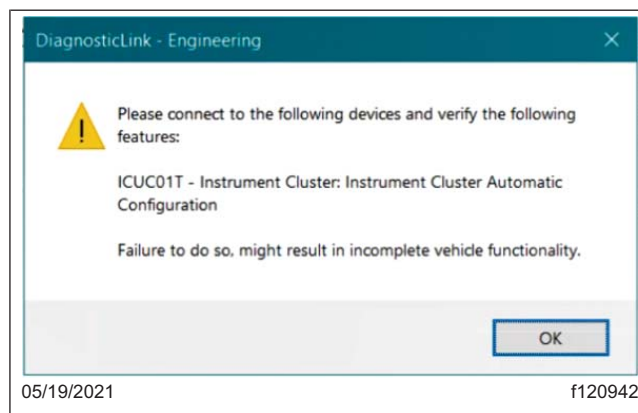
Century Class Conventional  
Argosy  
Cargo  
Columbia  
122SD and Coronado

Business Class M2  
Cascadia  
108SD/114SD  
> New Cascadia



**Fig. 9, Software Update Screen**

26. When the software update is complete, the ICUC01T or ICC501T window opens, indicating that a configuration procedure is required. Select 'OK' to close the window. See [Fig. 10](#).



**Fig. 10, Configuration Window**

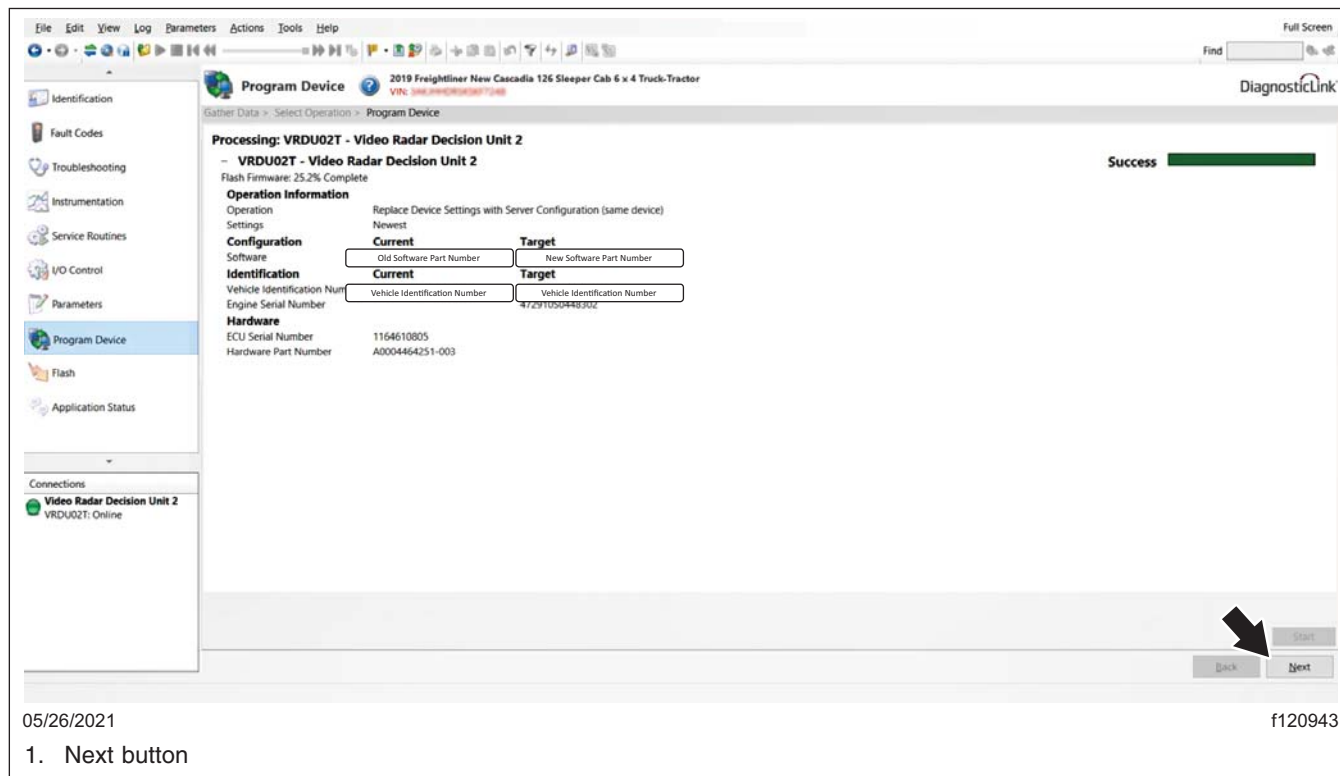
27. When the vehicle configuration process is finished, select 'Next.' See [Fig. 11](#).

FLA COE  
FLB COE  
FLD Conventional  
Business Class  
FLC 112 Conventional

Century Class Conventional  
Argosy  
Cargo  
Columbia  
122SD and Coronado

Business Class M2  
Cascadia  
108SD/114SD  
> New Cascadia

**Freightliner  
Service Bulletin**



**Fig. 11, Selecting Next**

28. Upload vehicle data to the server to record software updates. If this step is not completed, the update request will remain in pending state. See [Fig. 12](#).
29. A progress window appears as the data is uploaded.
30. When the data upload is complete, select 'Identification' in the upper-left corner of the screen.

Freightliner  
Service Bulletin

FLA COE  
FLB COE  
FLD Conventional  
Business Class  
FLC 112 Conventional

Century Class Conventional  
Argosy  
Cargo  
Columbia  
122SD and Coronado

Business Class M2  
Cascadia  
108SD/114SD  
> New Cascadia

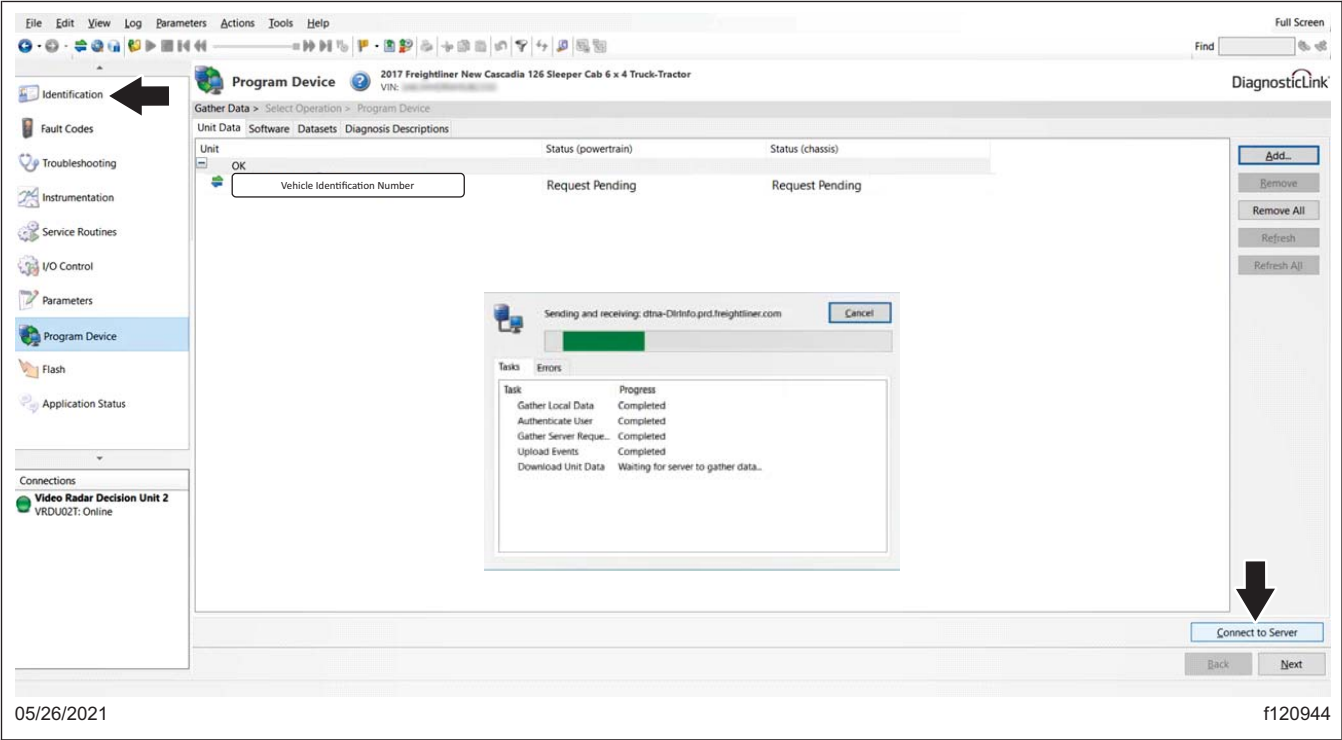


Fig. 12, Uploading Vehicle Data to the Server

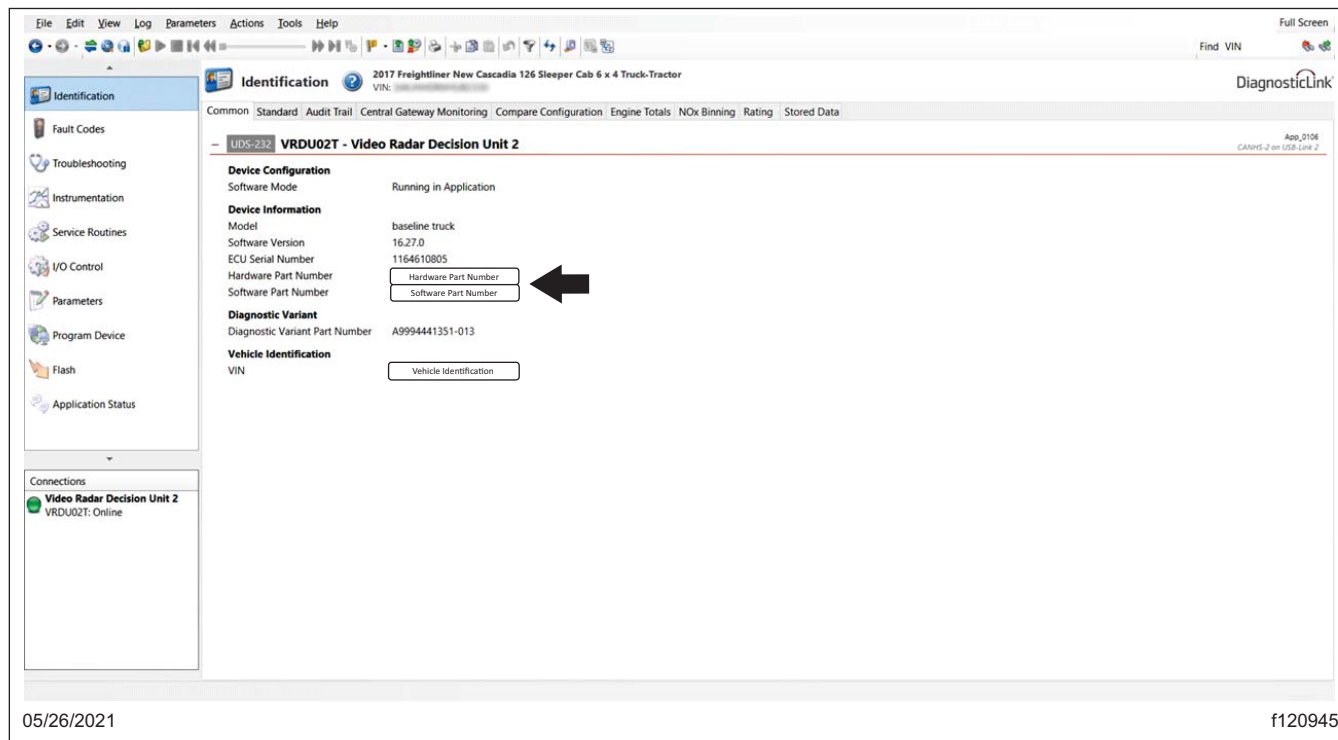
31. The hardware and software part numbers shown in Fig. 13 should reflect the updated numbers shown in the right column of Fig. 1.

FLA COE  
FLB COE  
FLD Conventional  
Business Class  
FLC 112 Conventional

Century Class Conventional  
Argosy  
Cargo  
Columbia  
122SD and Coronado

Business Class M2  
Cascadia  
108SD/114SD  
> New Cascadia

**Freightliner  
Service Bulletin**



**Fig. 13, Updated Hardware and Software Part Numbers**

## Auto Configuration Procedure

NOTE: The following instructions correct a fault code condition generated by the VRDU02T software update.

1. A DiagnosticLink fault code window indicates that an auto configuration procedure is required. See [Fig. 14](#).

**Freightliner  
Service Bulletin**

FLA COE  
FLB COE  
FLD Conventional  
Business Class  
FLC 112 Conventional

Century Class Conventional  
Argosy  
Cargo  
Columbia  
122SD and Coronado

Business Class M2  
Cascadia  
108SD/114SD  
> New Cascadia

| 3.03.027 SPN 523023 FMI 31  |                                                                          |
|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| SPN 523023 FMI 31: Auto Configuration Routine Not Performed – Condition Exists                               |                                                                          |
| <b>Module</b>                                                                                                | ICU (SA 23)                                                              |
| <b>Description</b>                                                                                           | Auto Configuration Routine Not Performed – Condition Exists              |
| <b>Monitored Instrument</b>                                                                                  | —                                                                        |
| <b>Typical Enabling Conditions</b>                                                                           | ICUC detects reported diagnostic variant that differs from stored value. |
| <b>Possible Causes</b>                                                                                       | One or more devices may have been replaced or updated.                   |
| <b>Monitor Sequence</b>                                                                                      | —                                                                        |
| <b>Execution Frequency</b>                                                                                   | —                                                                        |
| <b>Typical Duration</b>                                                                                      | —                                                                        |
| <b>Dash Lamps</b>                                                                                            | —                                                                        |
| <b>Symptom</b>                                                                                               | ICU display may show incomplete warning popups, or no warning popups.    |
| <b>Verification</b>                                                                                          | —                                                                        |
| <b>Reference Module</b>                                                                                      | 732, 81B                                                                 |
| 05/19/2021 <span style="float: right;">f120959</span>                                                        |                                                                          |

**Fig. 14, DiagnosticLink Fault Code**

2. Verify that all of the items shown in the 'Connections' window are online. See [Fig. 15](#).
3. Select 'Actions.' See [Fig. 15](#).

FLA COE  
FLB COE  
FLD Conventional  
Business Class  
FLC 112 Conventional

Century Class Conventional  
Argosy  
Cargo  
Columbia  
122SD and Coronado

Business Class M2  
Cascadia  
108SD/114SD  
> New Cascadia

Freightliner  
Service Bulletin

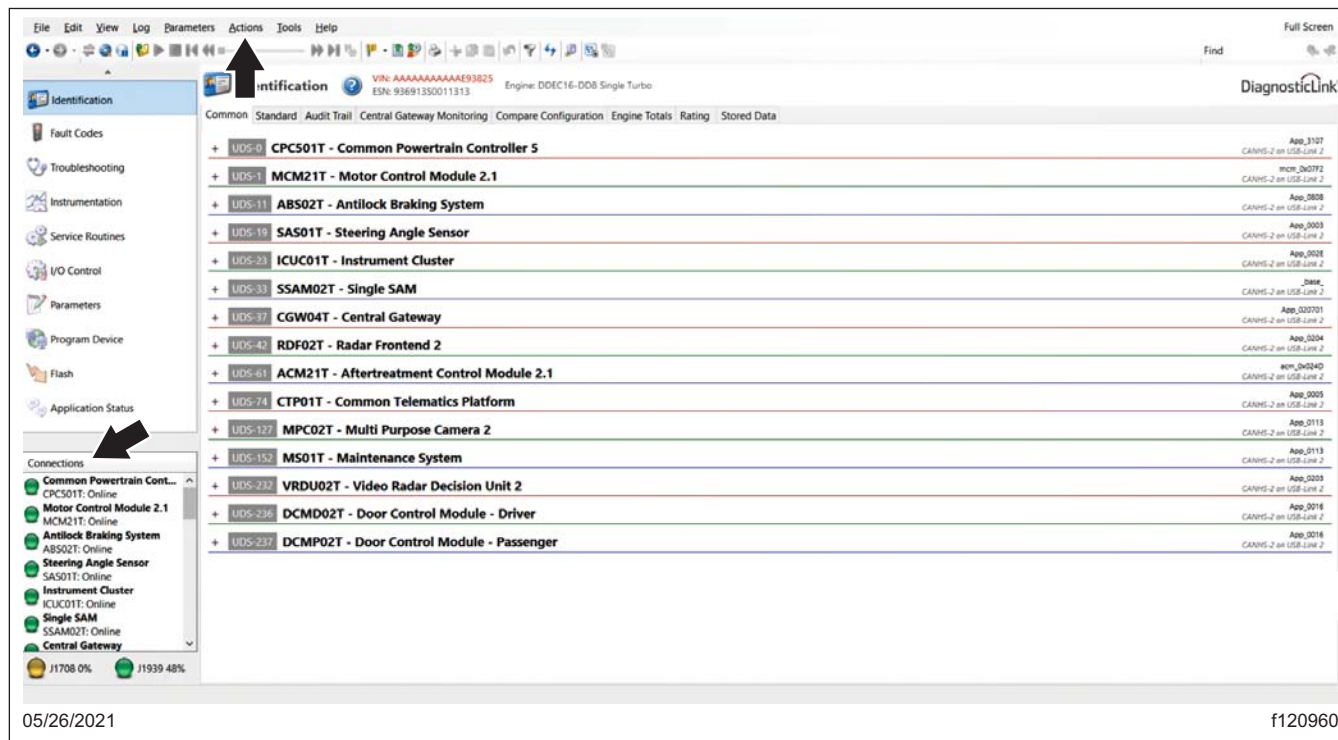


Fig. 15, Identification Window

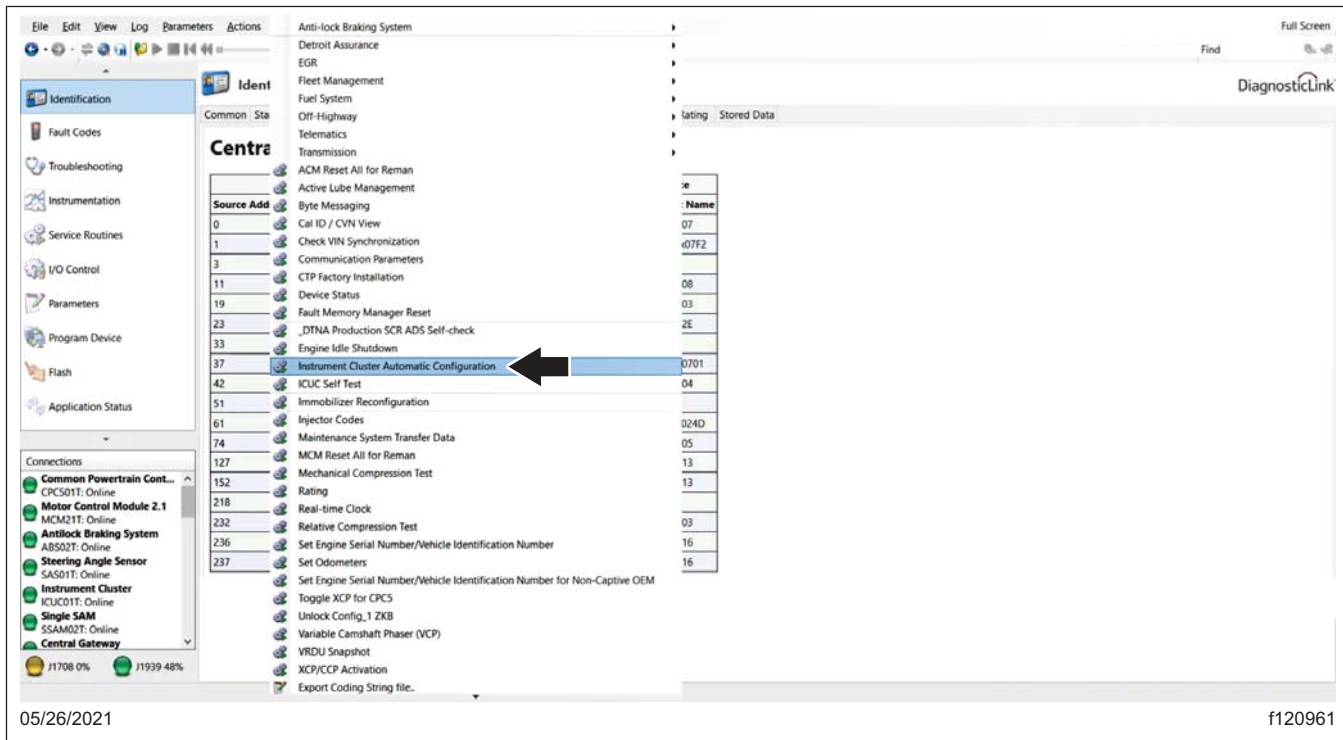
4. Select 'Instrumentation Cluster Automatic Configuration.' See [Fig. 16](#).

# Freightliner Service Bulletin

FLA COE  
FLB COE  
FLD Conventional  
Business Class  
FLC 112 Conventional

Century Class Conventional  
Argosy  
Cargo  
Columbia  
122SD and Coronado

Business Class M2  
Cascadia  
108SD/114SD  
> New Cascadia



**Fig. 16, Instrument Cluster Automatic Configuration Screen**

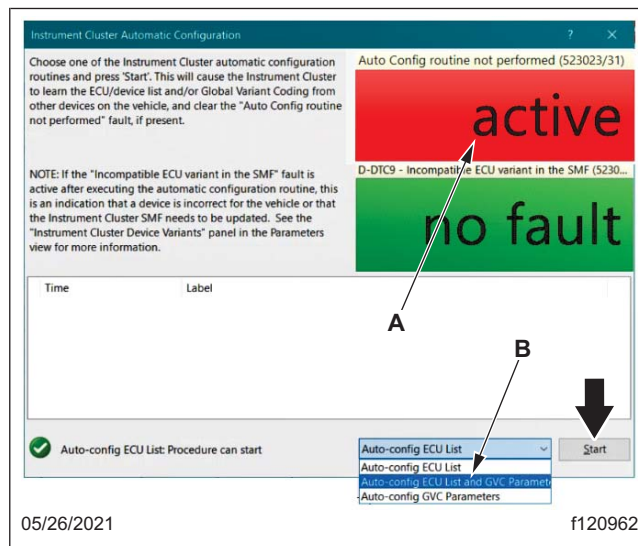
5. Verify that the red auto configuration panel says 'active', indicating that auto configuration is required. See [Fig. 17](#), ref. A.
6. Expand the drop-down menu shown in [Fig. 17](#), ref. B, then select 'Auto-config ECU List and GVC Parameters.'
7. Select 'Start.' See [Fig. 17](#).

FLA COE  
FLB COE  
FLD Conventional  
Business Class  
FLC 112 Conventional

Century Class Conventional  
Argosy  
Cargo  
Columbia  
122SD and Coronado

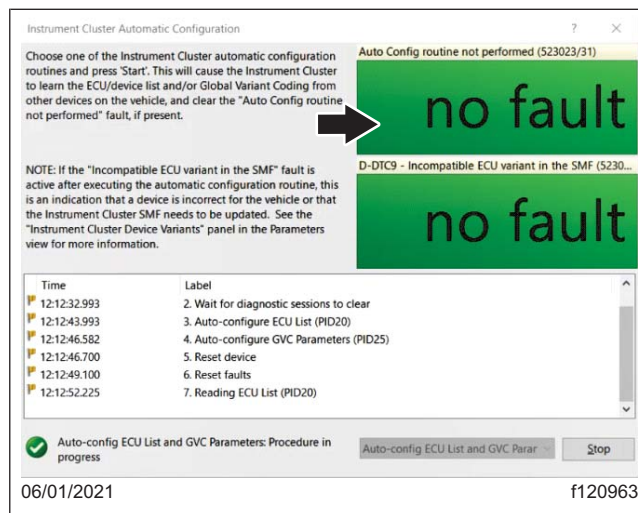
Business Class M2  
Cascadia  
108SD/114SD  
> New Cascadia

Freightliner  
Service Bulletin



**Fig. 17, Auto Configuration Panel**

8. When the auto configuration process is complete, verify that the auto configuration panel says 'no fault.' See [Fig. 18](#).



**Fig. 18, Fault Code Resolved**

## Warranty

This is an informational bulletin only. Warranty does not apply.