

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 vehicles with sleeper cabs may become extremely cold when in A/C mode, which can lead to reduced airflow as a result of internal ice buildup at the evaporator.

Conditions that contribute to the front evaporator freezing include the following:

- Engine at 900 rpm and above, typically noticed when vehicle is moving at 60 mph or more.
- Air conditioning in recirculation mode; it may freeze up in ECO mode but will take much longer.
- Blower motor operating at 50% power or above.
- Temperature control knob turned to full cold setting.
- Ambient temperature approximately 86°F (30°C) or above.
- Humidity at 75% or higher.

Durability of the Espar D5 heater system when paired with the battery parked HVAC system (BPHS) can be improved by applying "cool down" software to the parked control unit (PCU).

New software for the front control unit (FCU), auxiliary control unit (ACU), and parked control unit (PCU) software is now available. The software is backwards compatible for all controllers and is installed using DiagnosticLink and flashing to the latest software.

The FCU and ACU or PCU need to be updated.

For vehicles without a Battery Powered HVAC System (BPHS), software includes:

- FCU software 001 448 14 28 version 001 or newer
- ACU software 001 448 07 28 version 001 or newer

For vehicles with a BPHS unit, use the following software:

- FCU software 001 448 14 28 version 001 or newer
- PCU Software 000 448 70 28 version 007 or newer.

After the FCU and PCU software has been updated, drivers may notice the fan running for approximately three minutes after the Espar D5 heater has turned off.

Programming ECUs in DiagnosticLink

DiagnosticLink supports programming of both chassis and powertrain ECUs. It may be necessary to perform additional steps prior to the programming of a chassis ECU. When a chassis ECU is programmed using "Program Device" in DiagnosticLink, the ECU will be programmed with the most recent parameter sets and software from the server. This process will overwrite the parameters and software previously installed on the ECU.

When it is necessary to retain the parameter information contained within a chassis ECU on the vehicle, vehicle parameters should be read and uploaded to the server prior to downloading unit data and flashing the ECU. The data can then be re-downloaded from the server before programming the controller.

IMPORTANT: This process should not be performed if there are parameters on the vehicle that are not intended to be recorded in a service record. Only 1 service record per ECU, per vehicle, can be stored on the server. Once a new service record is created, the old record is lost.

DO NOT follow the process described in this document:

- when performing the initial programming of a spare part ECU; and

- when attempting to recover an incorrectly parameterized ECU.

Procedure

NOTE: Use the following procedures to program the FCU **and** the ACU or PCU.

1. Park the vehicle on a level surface, shut down the engine, and apply the parking brakes. Chock the tires.
2. Connect the vehicle to DiagnosticLink. Make sure that DiagnosticLink is updated to the latest version, 8.10, or newer. To update DiagnosticLink, select "Update" from the dropdown menu under "Tools." See [Fig. 1](#).

It is recommended when flashing to configure DiagnosticLink to connect only to "Default" modules, and stay in this configuration unless it is specifically needed to manually connect to the Common Telematics Platform (cTP) ECU. Default modules allow DiagnosticLink to connect only to the modules that need flashing, and ignores things like the cTP or the steering angle sensor.

To make this change in DiagnosticLink:

- From the top click "Tools", and select "Options" from the drop down menu.
- Find and select the "Connection" tab.
- Click the "Select Defaults" box on the right side of the tab, and hit "Apply."

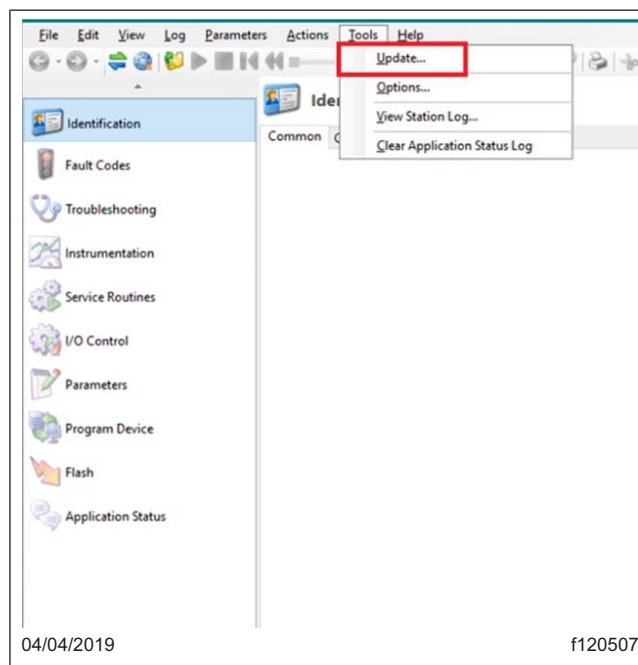


Fig. 1, Updating DiagnosticLink to the Latest Version

3. Address any pre-existing conditions or fault codes.
4. Select "Program Device." See [Fig. 2](#) . If there are any items in the section "Request Pending" downloads, they should be removed. To remove them, select the "Request Pending" list item, then press the "Remove All" button. See [Fig. 3](#).

Front HVAC Evaporator Freezing and Espar Heater Cool Down Algorithm

54-338

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

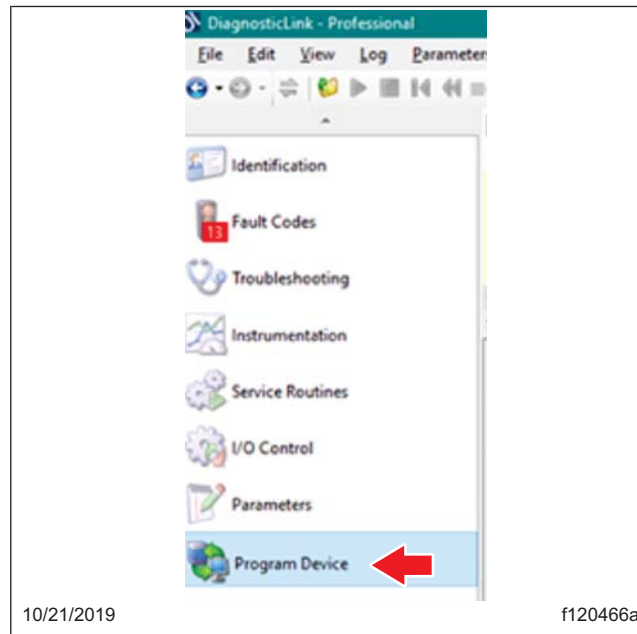


Fig. 2, Program Device Screen

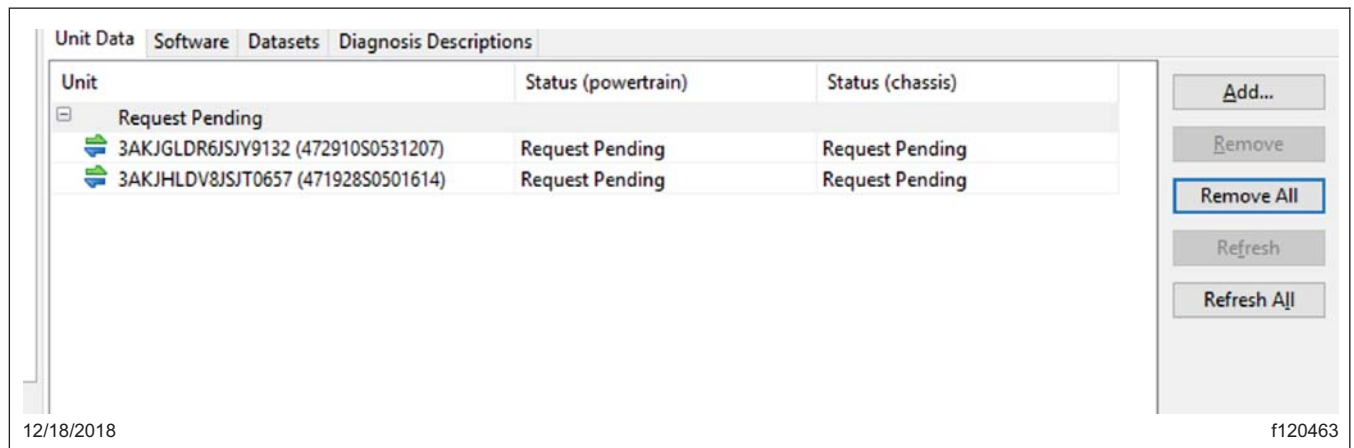


Fig. 3, Removing Pending Requests

5. Allow time for all modules to connect (see list on the bottom left-hand side of the screen under "Connections" in Fig. 4), then read the vehicle parameters by selecting "Parameters" at the top left-hand part of the screen. Wait until the bar indicating parameter reading is complete.

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

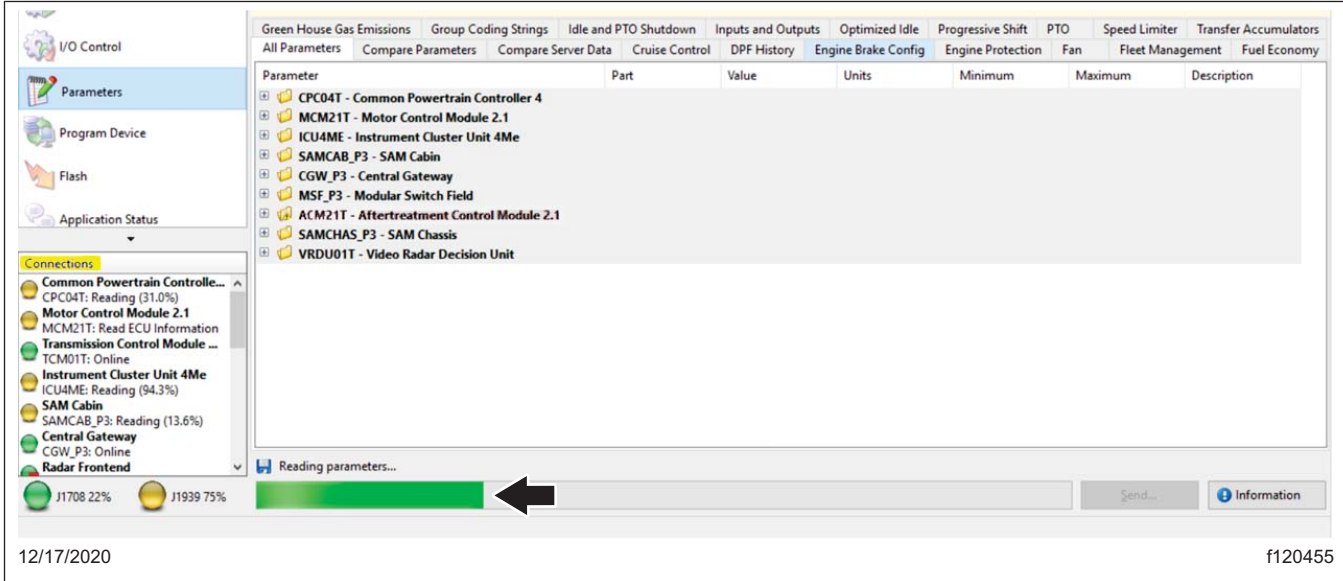


Fig. 4, Reading Vehicle Parameters on DiagnosticLink

6. Select "Program Device." There should be data to upload. Click "Connect to Server" to upload vehicle parameters to the server. See Fig. 5.

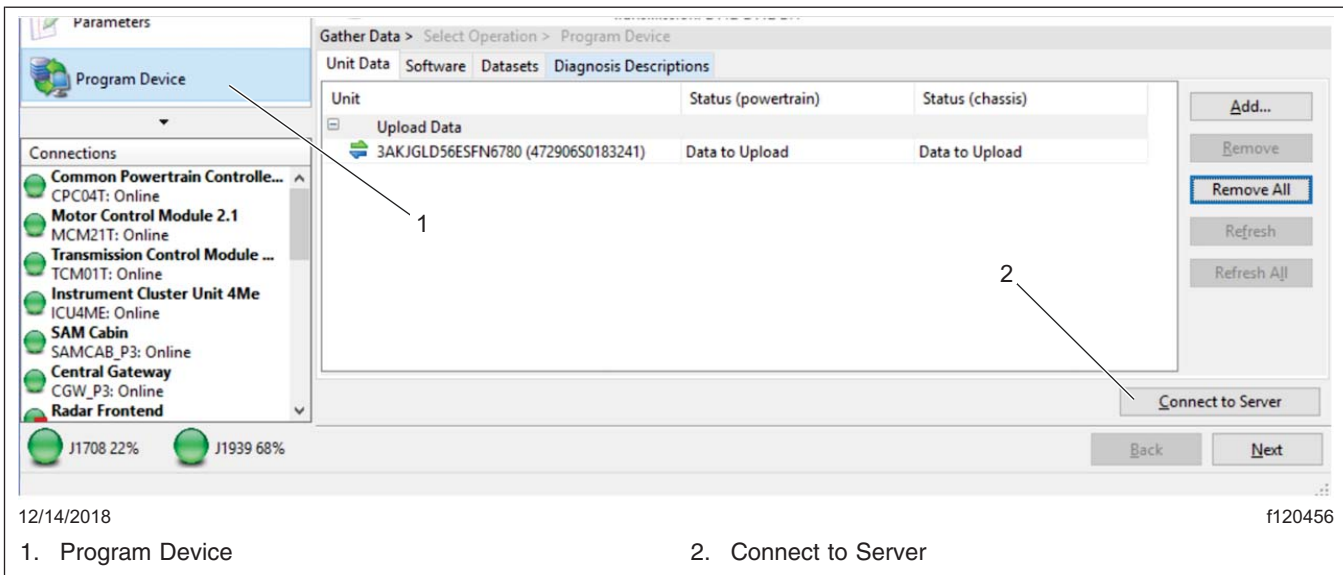


Fig. 5, Uploading Vehicle Parameters

7. Click "Add" to add a download request for the vehicle. See Fig. 6.

Front HVAC Evaporator Freezing and Espar Heater Cool Down Algorithm

54-338

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**

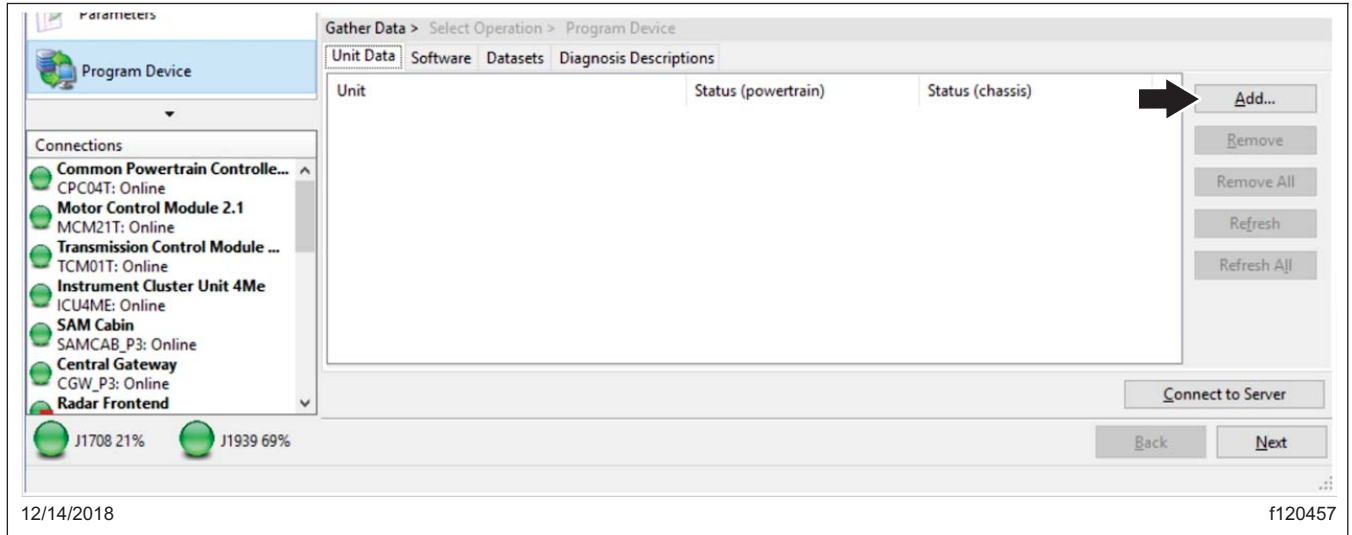


Fig. 6, Adding the VIN to Download Updated Server Data

8. Make sure the correct VIN and hardware is populated, then click OK. See [Fig. 7](#).

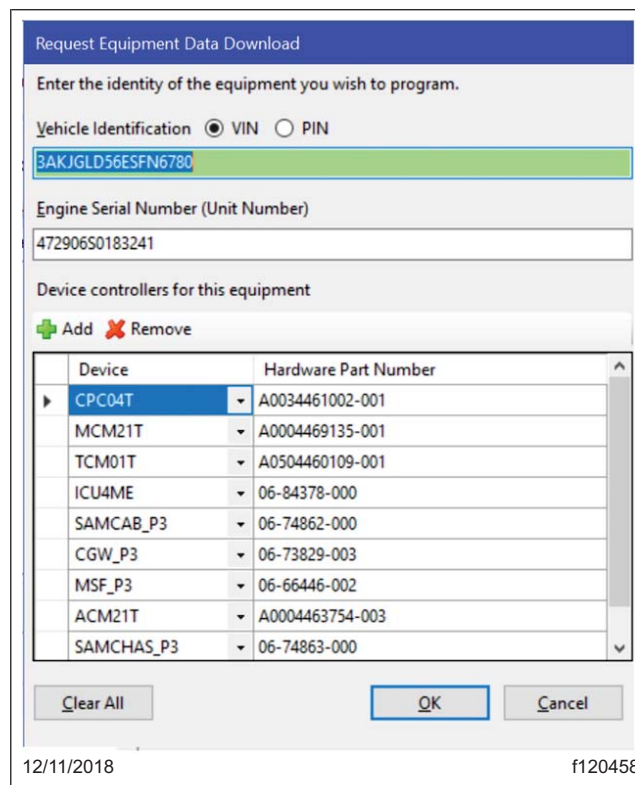


Fig. 7, Verifying Correct VIN Hardware

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

- There should be a request pending status for the VIN. Click "connect to server" to download the updated unit data. See Fig. 8. The server will provide any new software available on the server as well as updated parameter sets for the new software, adjusted for the parameter set that was just uploaded from the vehicle.

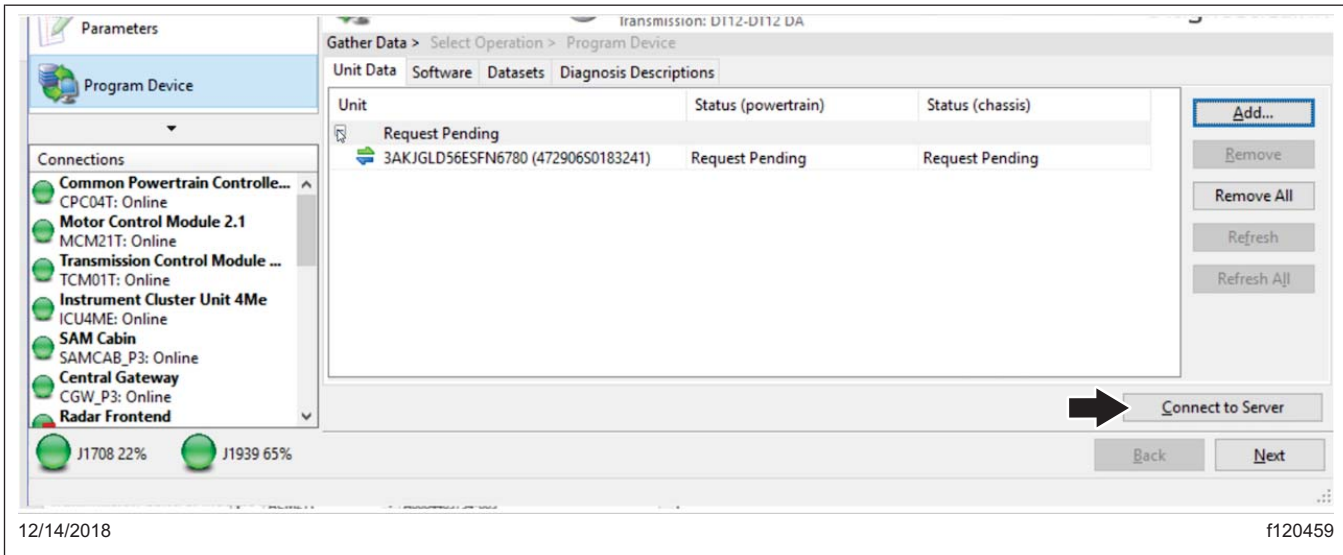


Fig. 8, Downloading Updated Unit Data

- Once the data has been downloaded, click "Next". See Fig. 9.

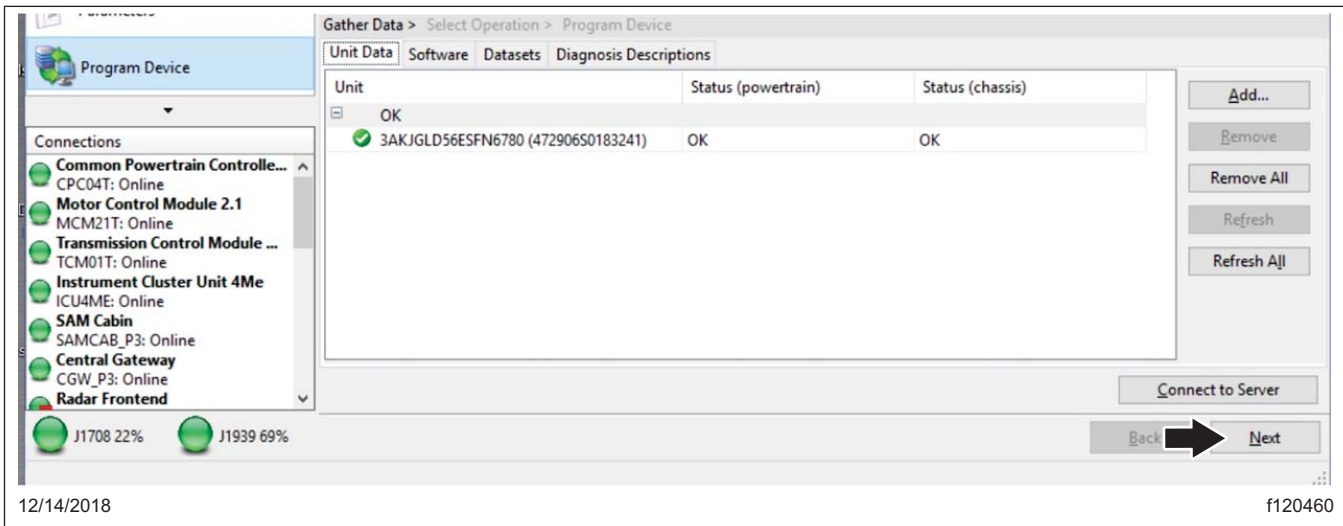


Fig. 9, Clicking Next

Front HVAC Evaporator Freezing and Espar Heater Cool Down Algorithm

54-338

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**

NOTE: "Latest" is the last service record (may be older software) and "Newest" is the most up to date software available for the installed hardware. Both will have parameter sets that have been updated relative to the upload from the vehicle. If the last service record is the most up to date software available, no "Newest" record will be provided.

11. Select either the FCU, ACU, or PCU to program, select the VIN, and select either "Latest" or "Newest." Click "Next." See [Fig. 10](#).

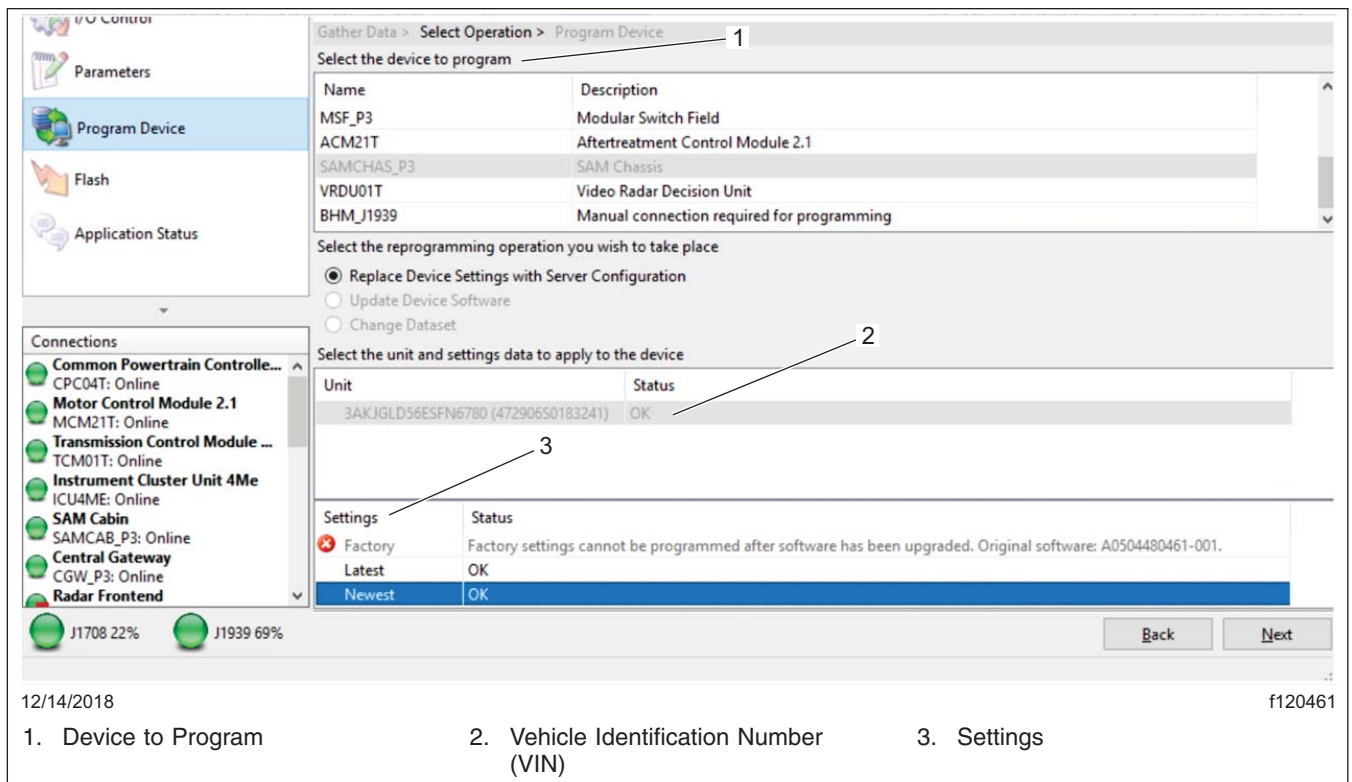


Fig. 10, Selecting "Latest" or "Newest" Software

12. Review and verify the VIN and hardware part number. Click "Start" to program the controller. The software will be flashed and the new parameter set will be written to the controller on the vehicle. See [Fig. 11](#).

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

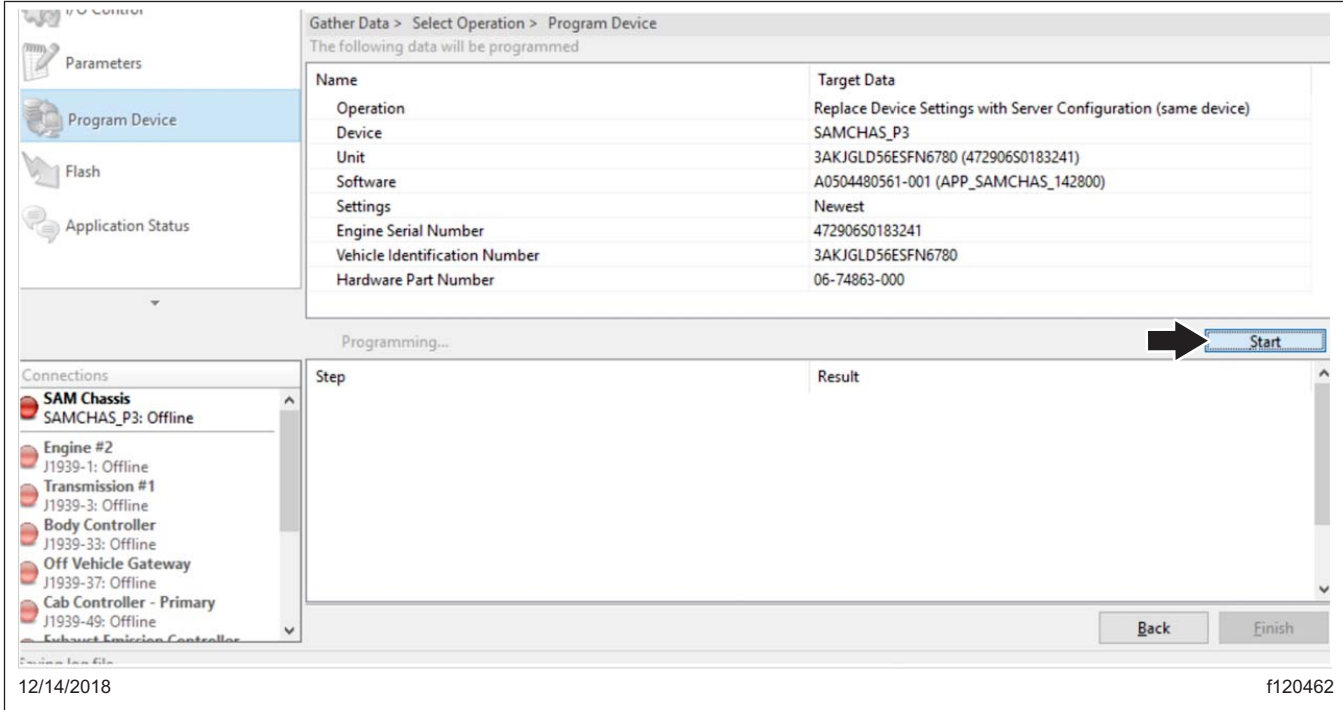


Fig. 11, Programming the Controller

13. When programming is complete, the page will display the message "The device was successfully programmed." Press "Finish."

IMPORTANT: After programming is complete, the following message may appear in DiagnosticLink: "The connected vehicle contains chassis devices with incompatible software versions, you will need to update these control devices using Program Device. Click here for more information." If this message is shown, continue with the next step. Otherwise, go to step 15.

14. Click on the banner message. See [Fig. 12](#).

Front HVAC Evaporator Freezing and Espar Heater Cool Down Algorithm

54-338

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

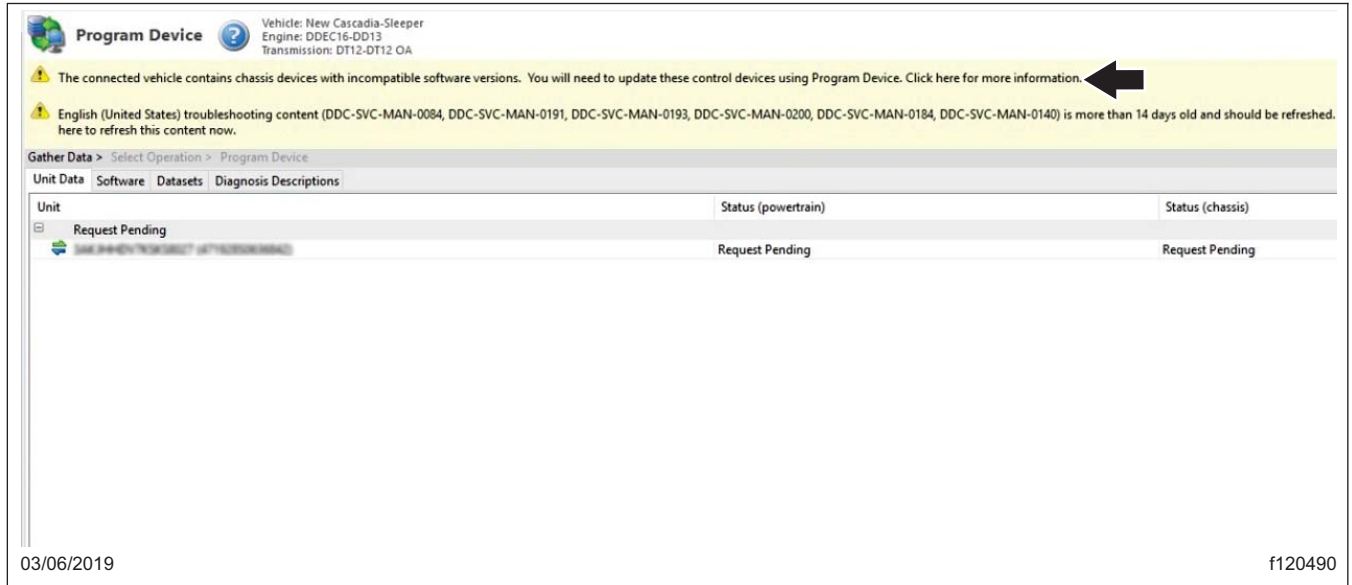


Fig. 12, Clicking on the Banner Message

15. Print or take a screen shot of the incompatible ECUs. See Fig. 13.

Compatibility Information X

The connected vehicle contains chassis devices with incompatible software versions. You will need to update these control devices using Program Device.

VIN: 3AK3HLD7V1534100 ESN: 47162030488291

Compatibility information may not be complete due to the following issues:

Data Source	Device	Hardware	Software	Issue
Edex	CGW04T	06-82361-002	A000488227-001	The set of software returned from the server for programming does not appear in the compatibility table supplied from the server.
Edex	DCMD02T	06-01126-000	A000488732-001	The set of software returned from the server for programming does not appear in the compatibility table supplied from the server.
Edex	DCMP02T	06-01126-000	A000488719-001	The set of software returned from the server for programming does not appear in the compatibility table supplied from the server.
Edex	SSAM02T	A00-94904-000	A000488856-001	The set of software returned from the server for programming does not appear in the compatibility table supplied from the server.
Edex	ICUC01T	06-82361-101	A0124882921-002	The set of software returned from the server for programming does not appear in the compatibility table supplied from the server.
Edex	HVAC_F01T	06-94732-000	A000488728-001	The set of software returned from the server for programming does not appear in the compatibility table supplied from the server.
Edex	RDF02T	A0004882349	A0004883349-001	The set of software returned from the server for programming does not appear in the compatibility table supplied from the server.

Print...

Copy

OK

03/06/2019 f120491

Fig. 13, Printing the List of Incompatible ECUs

16. Program all devices listed as incompatible from the previous step.

IMPORTANT: After a programming, some fault codes may become active and some ECUs may not auto connect. Cycling the ignition may clear the faults and connect the ECUs.

17. Turn the ignition to the OFF position, unplug and restart DiagnosticLink, and wait one minute.

18. Cycle the ignition 3 times, waiting 30 seconds between key OFF and key ON.

NOTE: This action will enable Intelligent Predictive Powertrain Control (IPPC) to start communicating on Roll Call, and eliminate codes for the IPPC not communicating.

19. Turn the key to the ON position and connect the vehicle to DiagnosticLink.

20. Go to "Actions" and select "ICUC Automatic Configuration." Click "Start."

21. Turn the ignition to the OFF position, unplug from the diagnostic port, and start DiagnosticLink. Wait one minute.

22. Connect DiagnosticLink, turn the key to the ON position. Clear inactive faults, and troubleshoot any active faults.

NOTE: Both the FCU module **and** ACU or PCU module need to be updated. Return to step 10 to start the update of the second module. Make sure to completed both required updates for the vehicle.

23. Disconnect vehicle from DiagnosticLink.

Front HVAC Evaporator Freezing and Espar Heater Cool Down Algorithm

54-338

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**

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	SRT Code	Description	Time: Hours
HVAC Controller	001-001-261	93	703-5009A	HVAC CONTROLLERS, FCU AND ACU OR PCU PROGRAMMING, UPDATE PER INSTRUCTIONS (SB 54-338)	0.7hrs

Table 1, OWL VMRS Codes and Labor Allowance