

SS 3107-FTL2022 New Cascadia Replacing Common Telematics Platform (CTP) 1 With a CTP2

Applicable Vehicles

This information applies only to New Cascadia vehicles.

Issue

As 7/22/22 the server that supported the CTP1 was sundown. Any CTP1 that was not communicating to DTNA back end by this date, will no longer be functional. This does not affect CTP1 that were communicating to the server, as these units were switched to the new server via over the air programming.

Solution

There are several CTP1 P/Ns, with each having specific components required to function properly. Since there are several variations, the CTP1 can not be directly superseded to a CTP2. The attached document contains the parts list and work instructions for replacing a CTP1 with a CTP2.

Labels :

Electrical

New Cascadia

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Attachments



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General Information

In the case of a Common Telematics Module (CTP) needing replacement, it is important that the correct module and components be installed for proper operation of the system. This document provides guidance for the replacement of the modules and components. This was written to address CTP modules that communicate on 500K Chassis CAN, used on New Cascadia vehicles built from 10/31/2016 to 5/27/2020.

Replacement CTP Modules

Reference [table1](#) below when replacing a CTP1. The table provides a list of CTP1 part numbers used on vehicles. Depending on which CTP1 is being replaced, the row that that CTP1 P/N is documented contains the other components needing to be removed and added when installing a CTP2.

CTP P/N Being Replaced	Supporting Parts to Remove	Supporting Parts to add	CTP Replacement P/N
66-05463-001 (CTP1, 3G)		66-11663-000 ANTENNA-4G CELL	A66-19900-504 (CTP2 4G) or A66- 19900-505 (CTP2 4G)
	66-03942-001 ANTENNA- GSM/GNSS,INTERIOR MT	66-03942-002 ANTENNA- GSM/GNSS,INTR MT,4G	
		A66-12157-000 ANTENNA- CABLE,WIFI/BT,INT	
66-05466-001 (CTP1 3G)	66-03942-001 (ANTENNA- GSM/GNSS,INTERIOR MT)	66-03942-002 (ANTENNA- GSM/GNSS,INTR MT,4G)	A66-19900-504 (CTP2 4G) or A66- 19900-505 (CTP2 4G)
		66-11663-000 (ANTENNA-4G CELL)	
66-10777-001 (CTP1,4G)		66-11663-000 (ANTENNA-4G CELL)	A66-19900-504 (CTP2 4G) or A66- 19900-505 (CTP2 4G)
66-13928-001 (CTP1,4G)		66-11663-000 (ANTENNA-4G CELL)	A66-19900-504 (CTP2 4G) or A66- 19900-505 (CTP2 4G)

Table 1 Parts list

CTP & Antenna Mounting Location

Mounting location of each of the components used with the CTP2
Figure1.

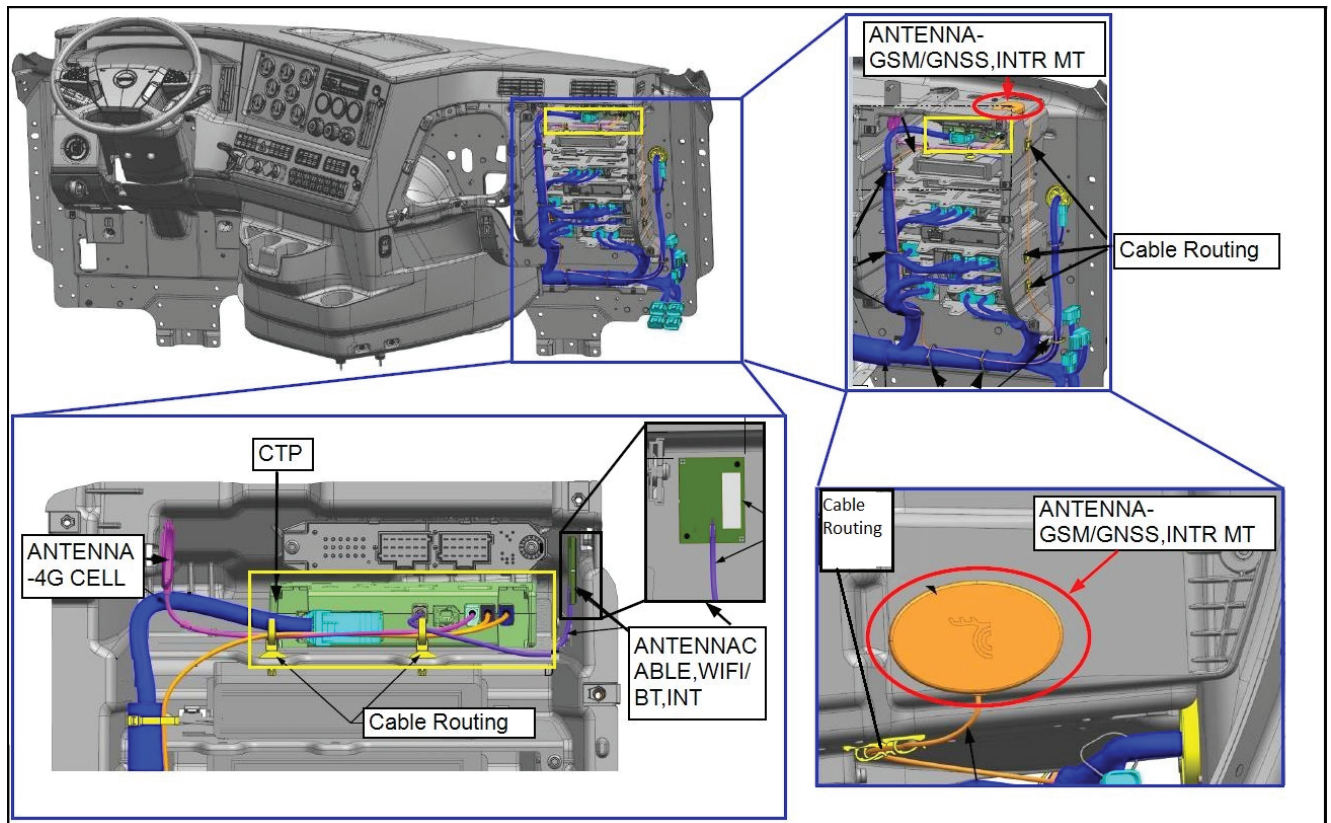


Figure 1 CTP2 component locations

Connection Locations CTP1 vs CTP2

Figure 2 identifies the CTP1 vs CTP2 connection locations.
When replacing a CTP1 with a CTP2 using the parts listed in

Table 1 refer to the CTP2 image in figure 2 for connections locations.

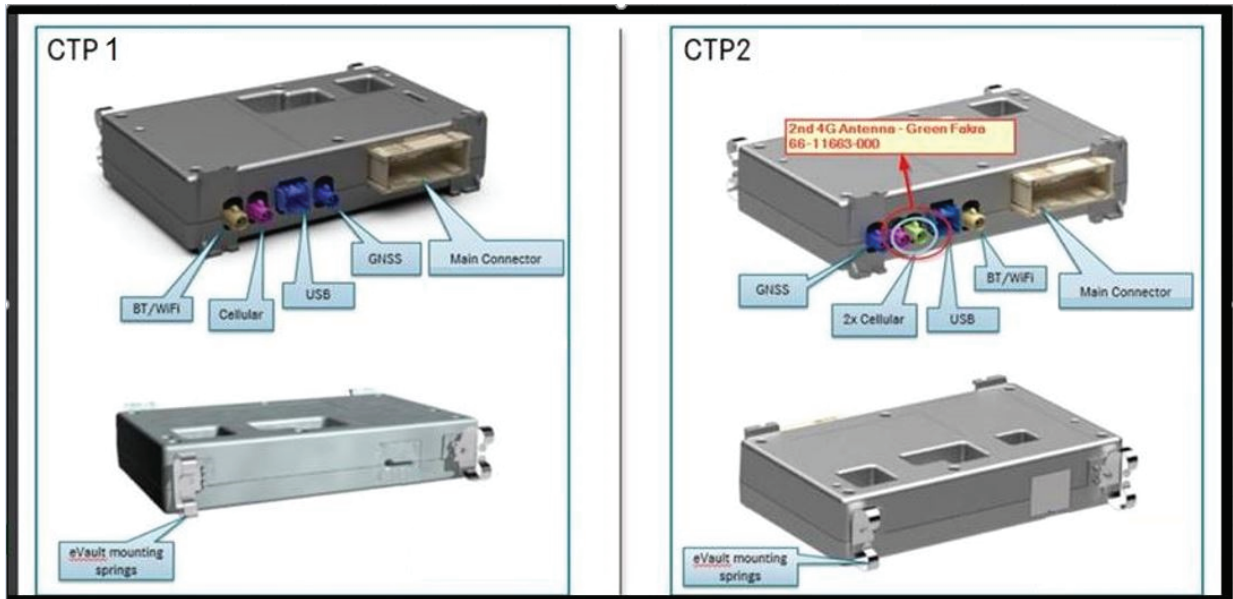


Figure 2 CTP1 vs CTP2

Antenna Identification

The following images are being provided as an aid in identifying each antenna.

ANTENNA-GSM/GNSS, INTERIOR MT 66-03942-001 vs 66-03942-002

These two antennas will look the same so the only true way to know which antenna you have is to check the part number on the antenna [Figure 3](#).

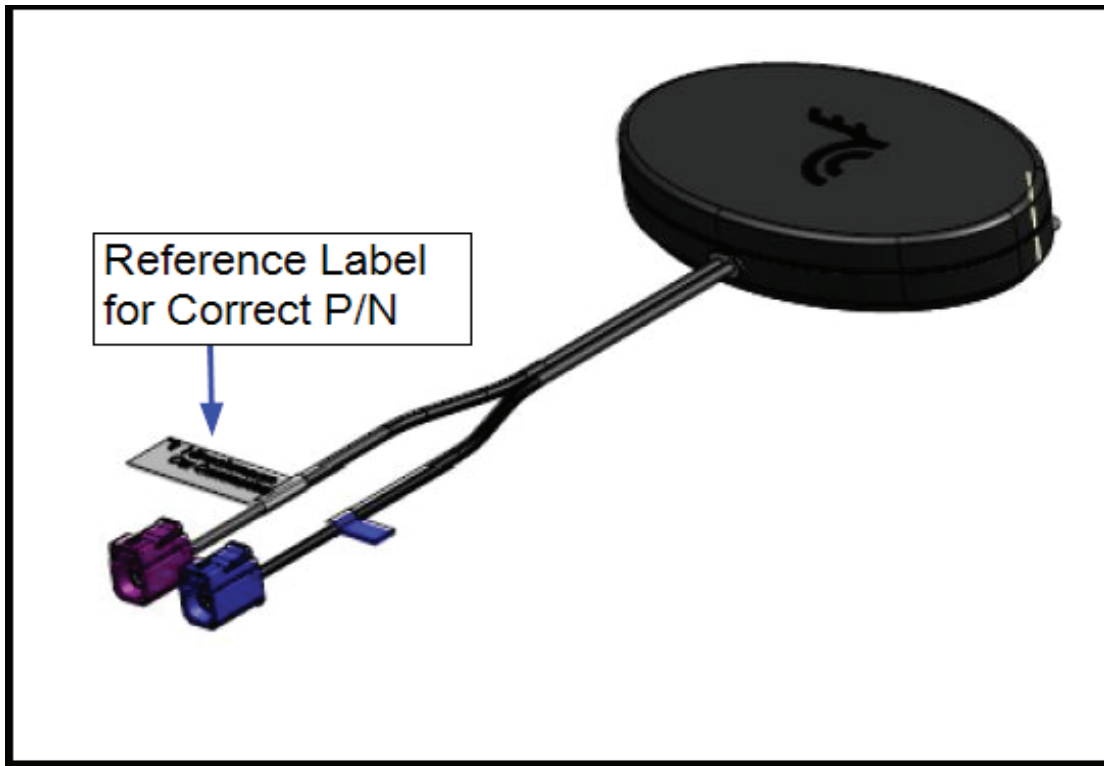


Figure 3 ANTENNA- GSM/GNSS

4G Cell antenna

Figure 4 provides an example image of the 4G Cell Antenna

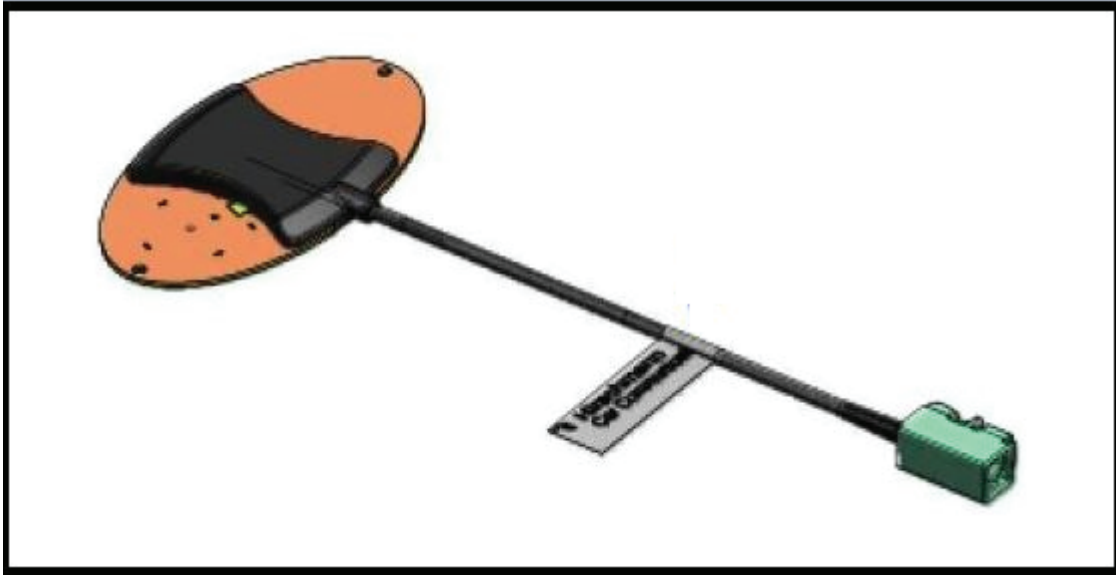


Figure 4 4G Cell Antenna

ANTENNA-CABLE,WIFI/BT,INT

Figure 5 provides an example image of the Wi-Fi Bluetooth antenna.

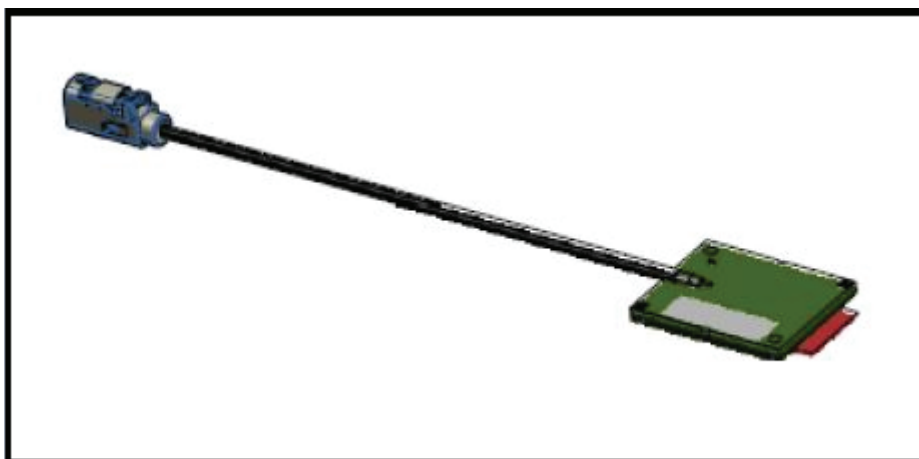


Figure 5 Wi-Fi Bluetooth Antenna

CTP Replacement and Initialization

DiagnosticLink 8.12 sp2 or newer, is required to complete this procedure, as well as a reliable internet connection. The procedure cannot be performed offline. The loss of internet connection may result in failure of the CTP activation.

1. Park the vehicle, shut down the engine, and apply the parking brakes. Chock the tires
2. Follow the steps below based on the components being replaced.
3. Remove the electronics bay cover and the passenger-side lower dash cover. Refer to Section 60.06 in the New Cascadia Workshop Manual for instructions.
4. Remove the vehicle power distribution module (VPDM) from the front of the electronics bay. Refer to Section 54.08, Subject 100 in the New Cascadia Workshop Manual for instructions.
5. Disconnect the connectors from the CTP ECU.
6. Press the CTP ECU firmly towards the back of the electronics bay to release the ECU from the forward mounting slots and then lift the ECU.
7. Remove the CTP ECU from the vehicle.
8. After the removal of the ECU, mark an "X" on the CTP label to identify it as old and eliminate any chance that the ECU ever being used in this or any other vehicle.
9. Position the new CTP ECU in the electronics bay, then press the ECU firmly towards the back of the shelf. Lower the front of the ECU on to the surface of the shelf and adjust its position horizontally until the tabs on the ECU are fully seated in the mounting slots.
10. Depending on the antenna(s) identified as needing replaced in [Table 1](#), replace / Install (as needed) and route the cable for each of the Antenna referencing [Figure 1](#).

Mounting locations for each of the Antenna being replaced is identified in [Figure 6](#). Make sure prior to installing any of the antenna(s) that the mounting area is clean. Clean mounting area using Isopropyl alcohol making sure the mounting surface is completely dry before installing the antenna using the included adhesive foam tape.

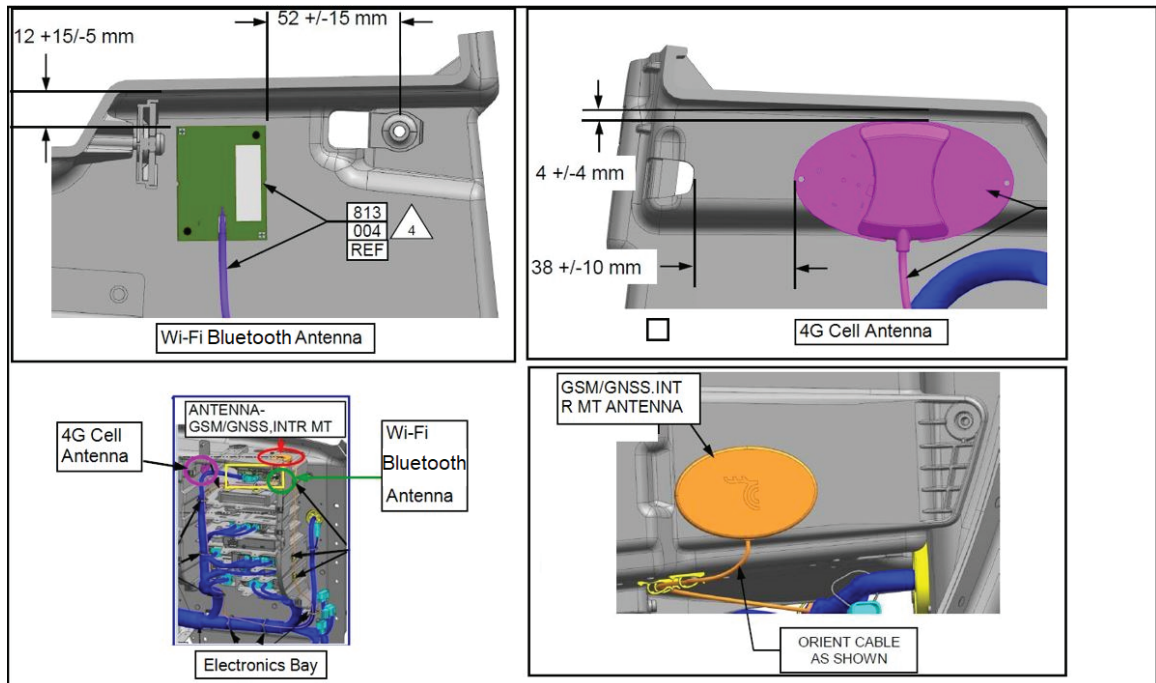


Figure 6 Antenna Mounting

11. Once all Antenna(s) being replaced / installed, are mounted correctly and cabling routed and fastened in place, Connect each of the antenna ends to the CTP2 using Figure 2 as an aid. Each of the antennas has a different color connector end that will match the color on the CTP2. Color ends aid in making sure each antenna is attached correctly to the CTP2.
12. Connect the 54-Pin connector
13. Install the VPDM. Refer to Section 54.08, Subject 100 in the New Cascadia Workshop Manual for instructions.

14. Install the electronics bay cover, the passenger-side lower dash cover, and the top dash cover. Refer to Section 60.06 in the New Cascadia Workshop Manual for instructions.

IMPORTANT: This procedure is not complete until the successful activation of the CTP has been confirmed through DiagnosticLink 8.12sp2. The execution of all the steps, in the correct sequence, is critical to a successful CTP replacement and activation.

15. Make sure the ignition switch is on.
16. Connect the vehicle to DiagnosticLink 8.12sp2, or later.
17. Allow all automatic connections to complete.
18. Right-click in the Connections window, and select Close Connections. If any failed controller connections remain, shown with a red indicator, right-click and select "Clear All Connection Errors."
19. In DiagnosticLink, click File > Connect and then, one at the time, select the following controllers to manually connect to them.
 - ICUC01T
 - CGW04T
 - CTP01T

IMPORTANT: Any other controllers, other than the three listed above, connected to DiagnosticLink may cause the initialization process to fail

20. Wait until all three controllers are fully connected and the connection indicators turn green. See [Figure. 7](#)

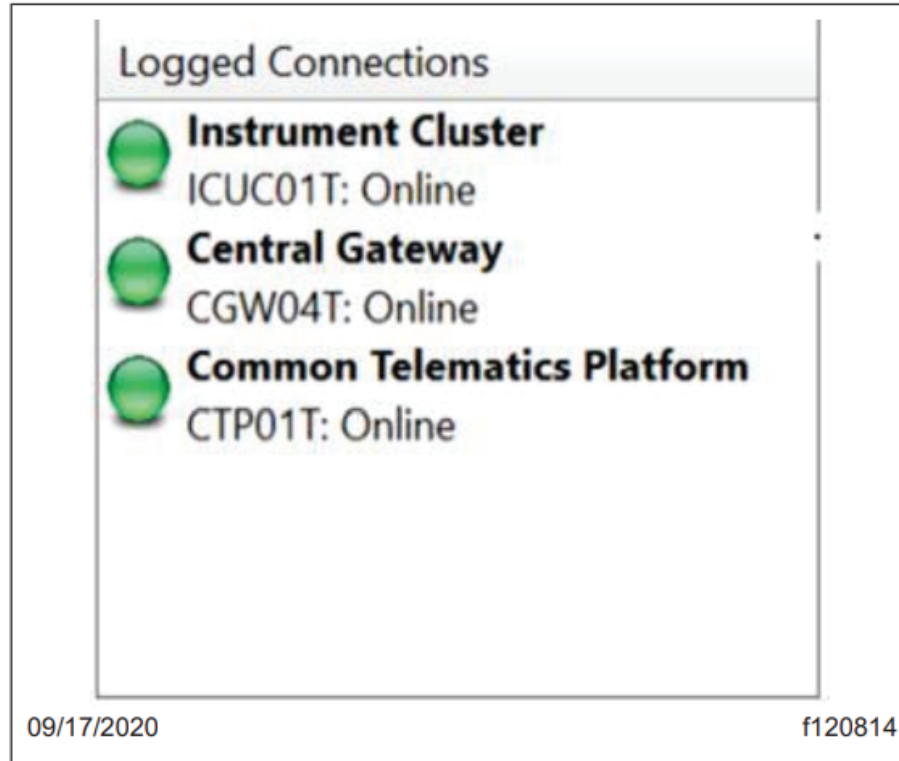


Figure 7 DiagonsticLink Connections Panel

21. Navigate to "Parameters", allow the parameters to be read and then select the "Initialize CTP" tab. See [Figure. 8](#)

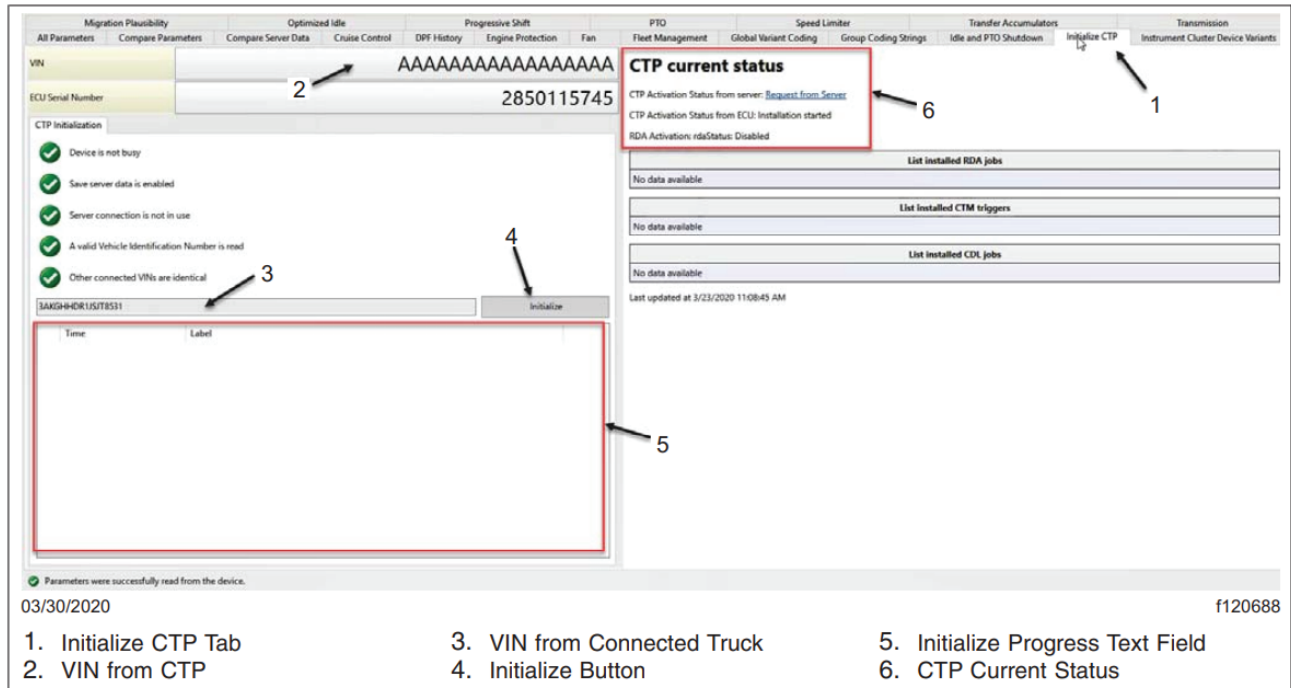


Figure. 8, Initialize Truck Data Center Panel

22. Verify the VIN from the new CTP2 reads the default AAAAAAAAAAAAAAAAAAAAAA or the VIN from the connected vehicle. Otherwise, remove the CTP and install a new CTP.
23. Run the initialization procedure by clicking on the "Initialize" button.
24. If prompted, enter user name and password to connect DiagnosticLink to the server.
25. Wait until the Initialization procedure finishes and the last line in the Initialize progress text field reads: "VIN written to device and the required data was sent to the server"
26. Monitor in the CTP Current Status area of the panel, located in the upper right-hand side, the CTP Activation Status from ECU. Within one to 10 minutes, the status message should change until it reads: Activation OK.
27. Within no more than 10 minutes from the end of the initialization procedure, does the CTP Activation Status from the ECU read "Active OK"?

YES → Go to the next step.

NO → Contact the Detroit Connect Operations Support team via email DetroitConnect@daimler.com, or by calling (855) 253-0420 option 2.

28. With the initialize CTP panel still open, click the full screen button located on the top right side of the DiagnosticLink window. See Figure 9.

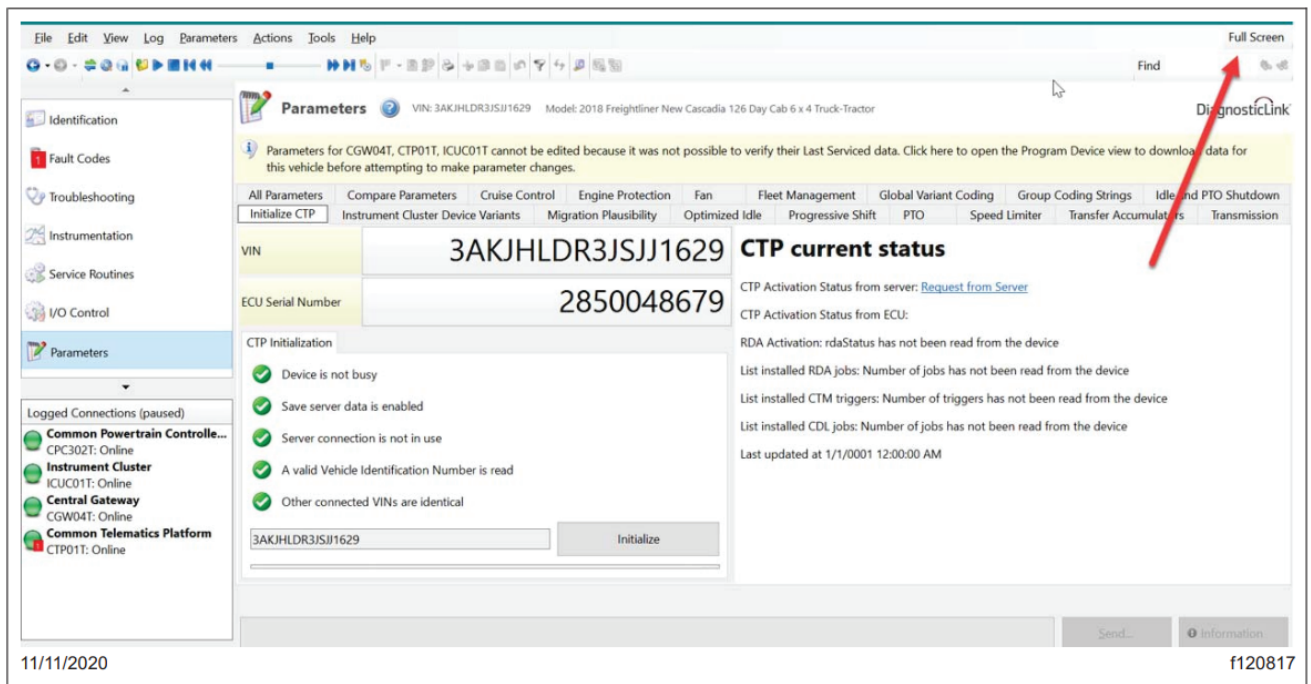


Figure 9 CTP Activation Status

29. For validation that the CTP2 was properly initialized and for the dealership records take a screenshot of the DiagnosticLink window, and make sure the VIN and the last line in the dialog box “VIN written to device and required data was sent to the server” are visible in the capture, as shown in Figure 10. The screen print should be kept as part of the work order.

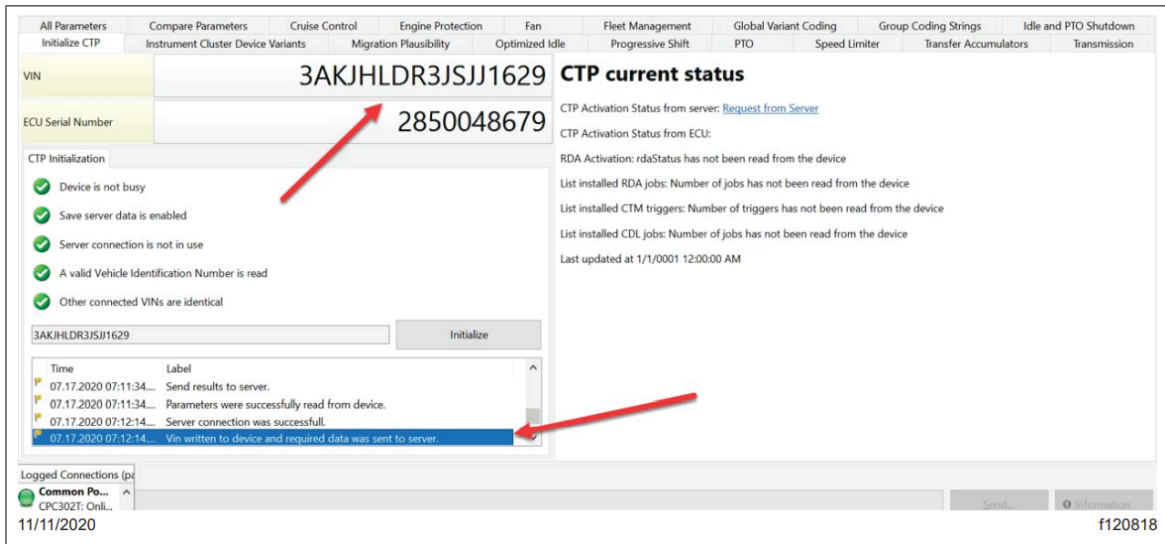


Figure 10 Screenshot of DiagnosticLink

30. Click the full screen button to return to normal view.
31. Disconnect DiagnosticLink.