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Cascadia Cabin CAN ECU Compatibility

54-239

FLA COE
FLB COE
FLD Conventional
Business Class
FLC 112 Conventional
Century Class Conventional
Argosy COE
Cargo
Columbia
Coronado
Business Class M2
> Cascadia

Freightliner Service Bulletin

Description of Revisions: *This bulletin replaces the version dated August 2009. Information has been added to Table 1.*

General Information

Cascadia Cabin CAN electronic control units (ECUs) must have compatible software for the vehicle to work properly. Failure to do so may lead to undesired and unpredictable vehicle behavior. Use the instructions in this bulletin to bring all Cabin CAN ECUs to compatible levels of software. Affected ECUs include the SAM Cab, SAM Chassis, Modular Switch Field (MSF), and Central Gateway (CGW).

All Cabin CAN ECUs are installed with the most recent software. However, while the vehicle is in service it is possible for one or more of these ECUs to be replaced or programmed with a software level that is not compatible with the others.

ServiceLink version 4.1 introduces a new feature for checking Cabin CAN ECU compatibility that includes the following tools:

- A pop-up dialog box appears if an incompatible software version is detected on the vehicle. See Fig. 1.
- A row on the "Problem ECUs" list indicates that an incompatibility exists among the CAN ECUs. The "Incompatible" row remains present until all Cabin CAN ECUs are compatible.

  The "Problem ECUs" list can be found by clicking the "List" icon and looking at the bottom of the "General Info" screen. See Fig. 2.

Instructions

NOTE: The procedure for updating ECU software includes guidance for obtaining compatibility of the ECU software versions only. Compatibility of ECU hardware versions is not covered.

ServiceLink version 4.1 is required to perform this update. To confirm which ServiceLink version is installed, open ServiceLink; it is not necessary to connect to a vehicle. Click on the "Help" link at the top of the screen, then click "About". The screen will display the ServiceLink version.

Nexiq USB-Link driver version 6.0 is required to perform this update. To confirm which Nexiq USB-Link driver version is installed:

- Open the Control Panel.
- Open the "Add or Remove Programs" list.
- Scroll to the entry "Nexiq USB-Link".
- Click the link "Click here for support information."
- A pop-up dialog will appear. The version shown in this dialog should say "6.0".

The 6.0 driver is available on Nexiq's website, in the Downloads section:

http://www.nexiq.com/support/downloads.asp

Procedure

1. Shut down the engine.
2. Turn on the ignition and confirm the batteries are fully charged.
3. With sufficiently charged batteries, establish a ServiceLink connection to the vehicle. The VIN will be identified.
4. Confirm that the VIN is correct.

5. If an incompatibility exists on the vehicle the following will occur:
   - A pop-up dialog about incompatibility will appear. See Fig. 1. Click "Close" on that notification.
   - An "Incompatible" row will appear in the "Problem ECUs" list at the bottom of the "List" icon General Info screen. See Fig. 2.

If there was no pop-up about incompatibility and no "Incompatible" entry in the "Problem ECUs" list, the ECUs are already compatible. Go to step 9. Otherwise, continue to the next step.

6. Observe the Software Versions for all four Cabin CAN ECUs: Central Gateway, Modular Switch Field, SAM Cab and SAM Chassis. It may help to write down the original software version of each Cabin CAN ECU on the list provided below.

ECU	Original Software Version	Updated Software Version
SAM Cab	_____._____._____	_____._____._____
Central Gateway (CGW)	_____._____._____	_____._____._____
Modular Switch Field (MSF)	_____._____._____	_____._____._____
SAM Chassis	_____._____._____	_____._____._____

7. In order to insure compatibility, the software versions reported on the vehicle must match one of the rows in Table 1.

   Determine which ECUs need to be upgraded. Compare the original software versions in ServiceLink to the to the values in Table 1.

8. Upgrade ECU software as necessary to match all reported software versions to one of the rows in Table 1. This may require more than one ECU to be upgraded.

   Use the "Flashing" screen of each affected ECU to upgrade its software. Select the appropriate flash version and click the "Flash Now" button. Each software version and the associated flash version is provided in Table 1. For example, for CGW software version "07.22.000" the associated flash version to select in ServiceLink is "A0004480427_001".

   As the software is upgraded , it may help to write down the updated software version in the space provided.

   NOTE: It is not possible to install earlier ECU software versions using ServiceLink. Instead, ServiceLink only allows an ECU to be flashed with the currently installed software, or the latest software release.

   TIP: Software versions for all four ECUs can be checked at any time by clicking the "List" icon.

9. Verify ECU compatibility exists: Click on the "List" icon in the left-hand side bar.
10. Look at the bottom of the screen at the "Problem ECUs" list.
11. If there is **no** row in the "Problem ECUs" list showing "Incompatibility", the ECUs are compatible. Continue to step 13. If there is still an 'Incompatibility' row in the Problem ECUs table, continue to the next step.
12. Check that all Cabin CAN ECU software versions reported in ServiceLink matches a row in Table 1. Perform the flashing procedure again if necessary. If the ECU software versions have been rechecked and do match a row in Table 1, but ServiceLink still gives the pop-up that an incompatibility exists or continues to have an "Incompatibility" row in the "Problem ECUs" list, contact the Dealer Help Desk at 503-745-8220.
13. Disconnect from ServiceLink.

14. Unplug the diagnostic connector from the vehicle, and turn the ignition key to OFF.

Compatible Sets of Cabin CAN ECU Software				
Software Release	Software Version/Flash Version			
	SAM Cab	CGW	MSF	SAM Chassis
5.0	07.17.003 A0004484558_001	07.22.000 A0004480427_001	07.24.000 A0004480523_001	07.17.003 A0004481761_001
5.0	07.17.003 A0004484558_001	08.40.000 A0004480627_001	07.24.000 A0004480523_001	07.17.003 A0004481761_001
5.2	07.36.005 A0004484658_001	07.22.000 A0004480427_001	07.24.000 A0004480523_001	07.36.005 A0004481861_001
5.2	07.36.005 A0004484658_001	08.40.000 A0004480627_001	07.24.000 A0004480523_001	07.36.005 A0004481861_001
5.4	08.17.014 A0004484758_001	08.42.001 A0004480727_001	08.31.000 A0004480623_001	08.17.016 A0004481961_003
5.4	08.17.015 A0004484758_002	08.42.001 A0004480727_001	08.31.000 A0004480623_001	08.17.016 A0004481961_003

Table 1, Compatible Sets of Cabin CAN ECU Software

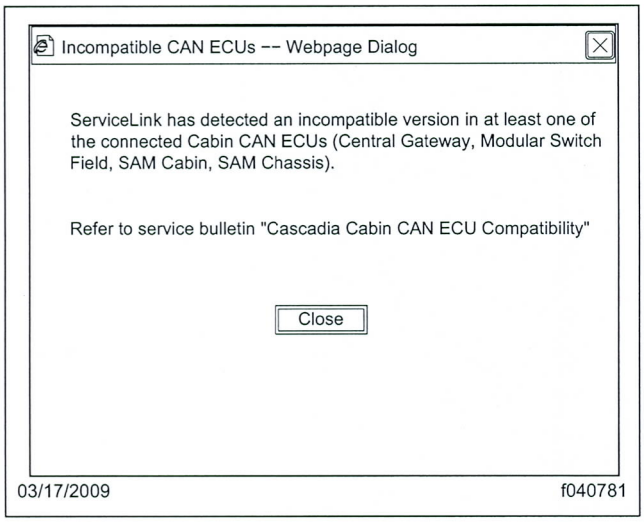
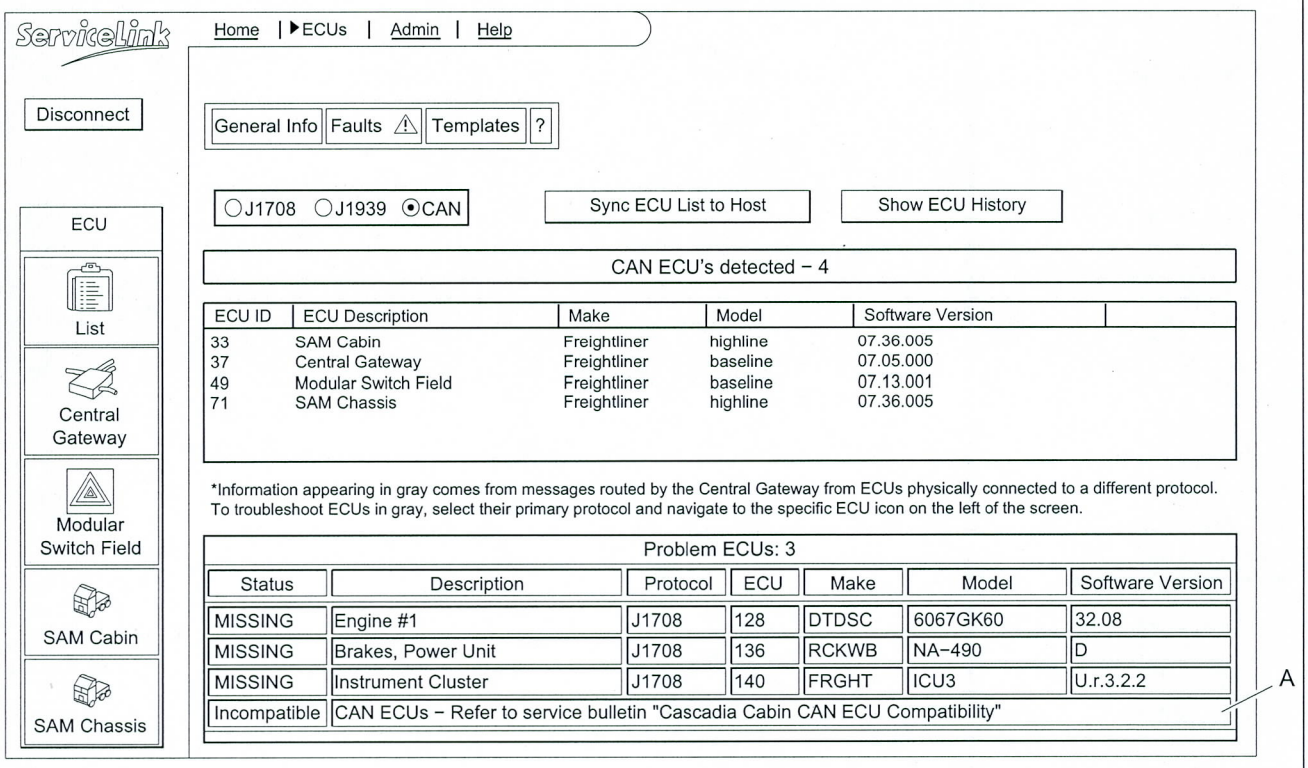


Fig. 1, ServiceLink Incompatibility Detection Dialog Box

Warranty

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



A. The incompatible row is shown on the "Problem ECUs" list.

Fig. 2, CAN ECU List on the General Info Screen