SS 581167 FCCC eB2 (Jouley) 47% SoC Battery CAN Integrity Improvement (294)

Applicable Vehicles

FCCC eB2 (Jouley)

Symptoms

Vehicles may irregularly exhibit roughly 47% SoC on initial startup after a charge cycle.

Vehicles may exhibit CAN crash concerns on vehicles if the terminating resistance of the Battery CAN circuit is not optimal.

Failure to correctly update the terminating resistance settings and hardware may cause one string to open contactors prematurely.

Issue

Some units have an additional terminating resistor turned on in the CAN gateway (bridge) module. In addition to this software controlled terminating resistor, the circuit has an additional hardware terminating resistor inline that will need to be removed.

Solution

Perform gateway controller software update to turn off the software controller terminating resistor in the module programming **ONLY on applicable vehicles as seen on page 3 of the attachment.** Remove the front box terminating resistor from the vehicle.

(See attachment for details.)

Normal warranty applies. (SRT to perform is .5 hour or 30 minutes.)

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DAIMLER TRUCK

EB2 Gateway Controller Update

47% SoC Resolution

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General

- This update aims to resolve a concern where a single string may exhibit a CAN crash concern and open contactors
- This will eliminate the 47% SoC customer nuisance scenario upon “Key on” after a charge cycle

EB2 Gateway Controller Update Note

- Before attempting to update the gateway controller refer to BOM MOD160 in Excelerator for each vehicle. If the BOM contains G66-34285-000 wiring schematic proceed with the gateway controller software update. Otherwise proceed to “Hardware Terminating Resistor Update”.

Tools Required

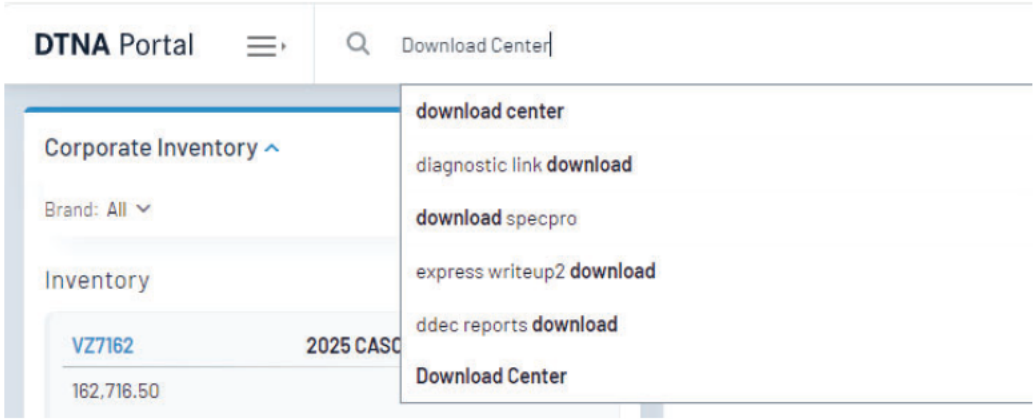
- Freightliner Gateway Updater Software (FreightlinerGatewayUpdater_Install_1.0.7.0.exe)
- Properly configured and installed Nexiq USB-Link 2 or Nexiq USB-Link 3 adapter

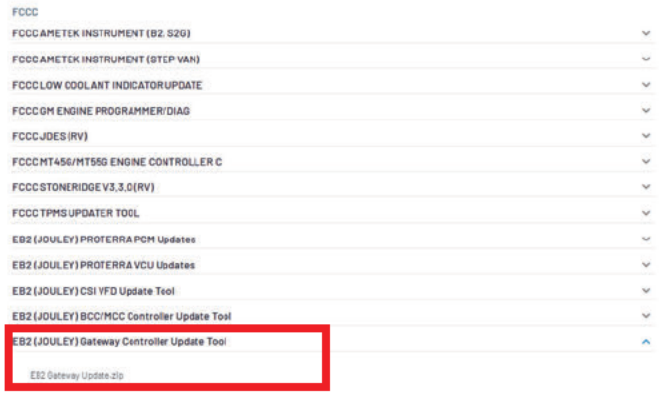
Parts Required (Per Vehicle)

- 1x PAC 15326806 B (Connector)
- 2x PAC 15305171 B (Cavity Plug)
- 1x PAC 15355128 (Terminal Lock)

Freightliner Gateway Updater Installation

- Search for the Download Center on the DTNA Portal
- Locate the EB2 Gateway Update Package under the FCCC section and download the package
- Install the Freightliner Gateway Updater Software (FreightlinerGatewayUpdater_Install_1.0.7.0.exe)





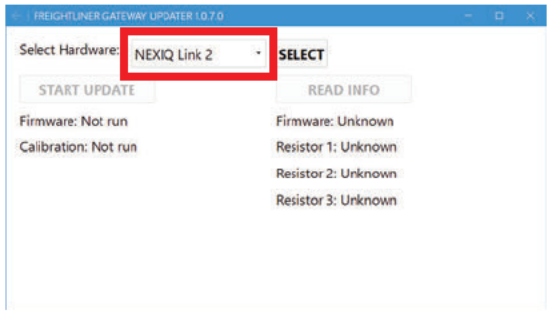
Updating EB2 Gateway Controller

- **NOTE**: Failure to perform this update as per the process below *may* result in a compromised module.

- Connect the 9-pin diagnostic connector of the required Nexiq USB-Link adapter to the diagnostic port on the vehicle
- Connect the USB-A connector from the required Nexiq USB-Link adapter to a Windows PC with “Freightliner Gateway Updater” software installed
- Ensure 12V disconnect switch is turned ON
- Ensure the vehicle has sufficient 12V battery power
- Run the “Freightliner Gateway Updater” software

Updating EB2 Gateway Controller Continued…

- Navigate to the appropriate hardware (Nexiq USB-Link 2 or Nexiq USB-Link 3 in the "Select Hardware" dropdown and “Select” the hardware



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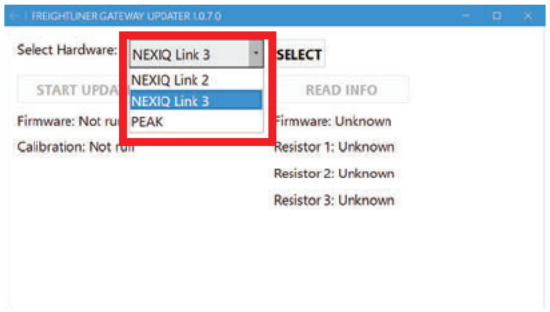

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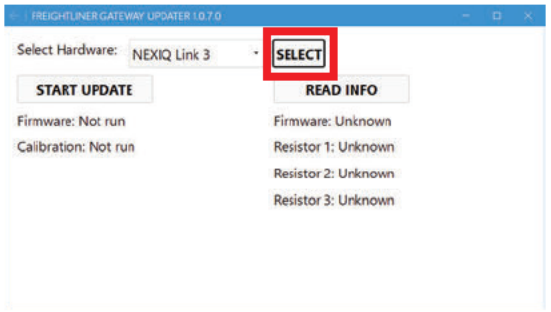

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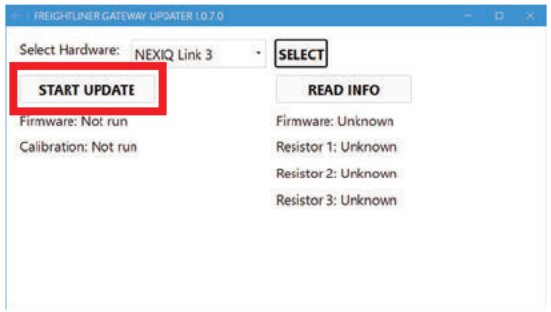
Updating EB2 Gateway Controller Continued…

- Select “Start Update” on the main application window
- Wait two (2) minutes to ensure the gateway module is powered down
- Adjust the ignition switch to the “Run” position
- The update will begin and display progress in a status bar, once completed the Firmware window will automatically close



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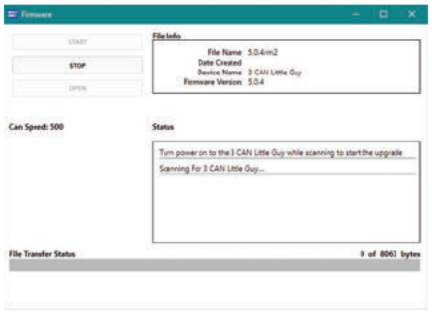

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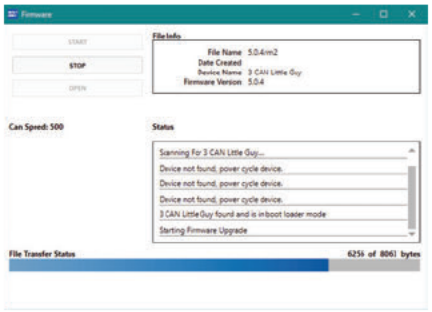

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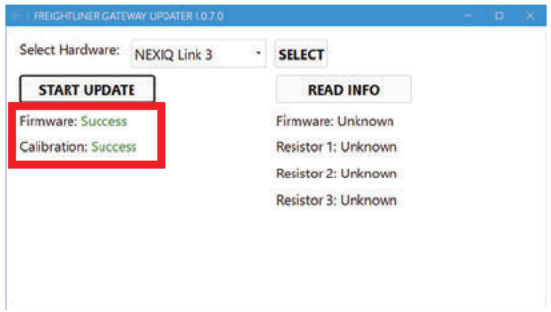
Validation

- Ensure the Firmware and Calibration fields both show success
- Select Read Info on the main application window (You must complete this step immediately after the programming completes, otherwise you must power the vehicle down entirely and back up to be able to read the firmware version and terminating resistor settings)
- Ensure Firmware shows 5.0.4 and all three (3) terminating resistors are "Off"
- Gateway Software Update complete



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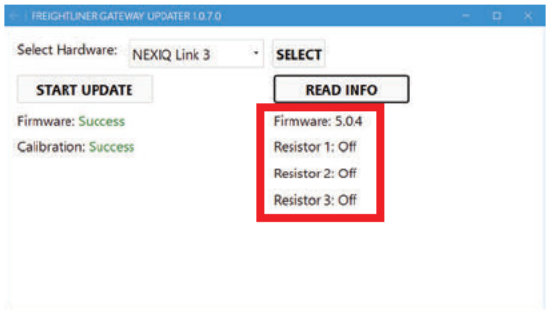

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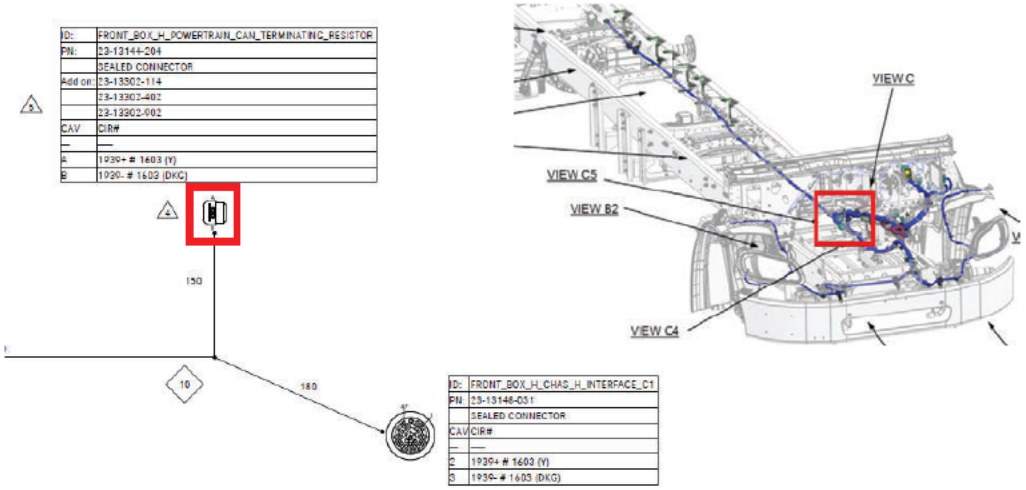
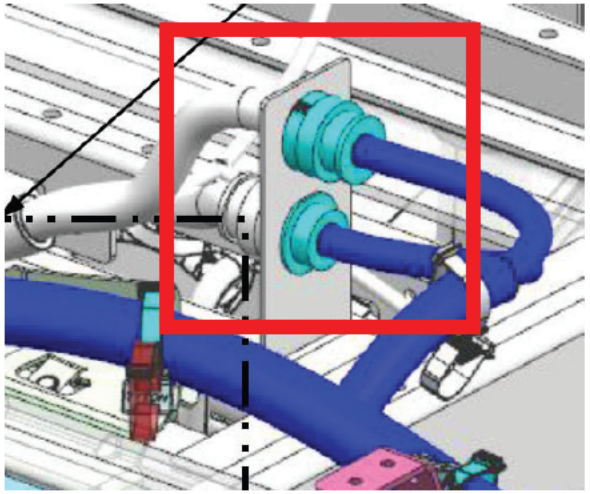
Hardware Terminating Resistor Update

- Assemble the required parts by inserting a cavity plug into each cavity of the connector, then install the terminal lock

Hardware Terminating Resistor Update continued…

- Remove the terminating resistor from the BCAN circuit (FRONT_BOX_H_POWERTRAIN_CAN_TERMINATING_RESISTOR) located at the front box near the 47 cavity Chassis Interface Connector (FRONT_BOX_H_CHAS_H_INTERFACE_C1)





Hardware Terminating Resistor Update continued…

- Install the assembled moisture seal / dust cap connector from the previous steps
- Hardware update complete