



PROTERRA



TECHNICAL SERVICE BULLETIN

DOCUMENT CREATION DATE:	6/19/2019
SERVICE CAMPAIGN SUBJECT:	ESM Controller Software Update
VINs or MODELS AFFECTED:	Catalyst E2 fleet
SERVICE CAMPAIGN #:	SB-19-82

ESM CONTROLLER SOFTWARE UPDATE

NOTICE! It is expected that this process will require 1 hour per bus. Please schedule appropriately to minimize vehicle downtime.

NOTICE! Service Bulletin SB-18-67 must be performed before completing this procedure.

Description:

This procedure updates the ESM controller for improved SOC calculations and low voltage performance.

Tools/Programs Required:

Tools Required:

- Laptop Computer
- Proterra Diagnostic Tool
- NexIQ USB-Link 2

Programs Required:

- Proterra Diagnostic Tool

Software Files Required:

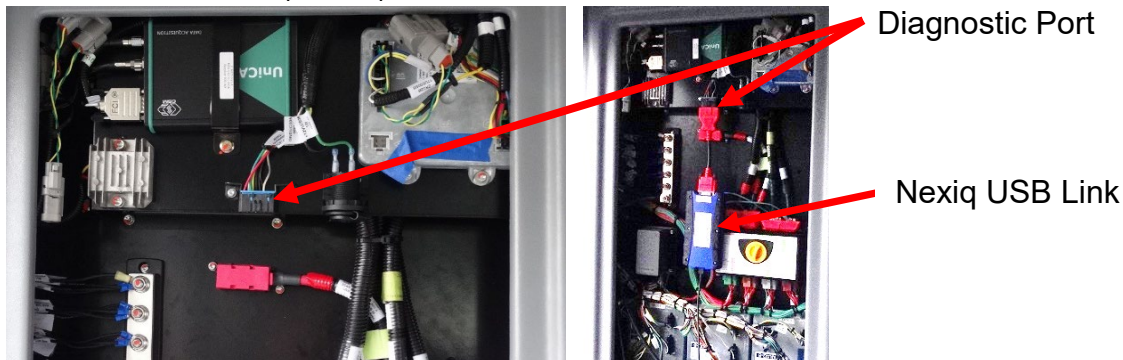
- *ESM_Catalyst_2_0_0_release_4_11_2019.srec (043836)*

Procedure

1. Access the following folder to obtain the new configuration file:
[\\BUS.Local\files\Engineering\Service Bulletins\Service Bulletin Files for SB-19-82\](\\BUS.Local\files\Engineering\Service Bulletins\Service Bulletin Files for SB-19-82)
2. Copy the software file **ESM_Catalyst_2_0_0_release_4_11_2019.srec** to a known location on the service technician's computer (Folder or Desktop).
IMPORTANT! NEVER access the software from the USB memory device, ALWAYS copy the software files to your computer hard drive and access the software from this location.
3. Turn **ON** the 12/24V rear Master Disconnect located behind the vehicle curbside rear upper access panel.
4. Turn **OFF** the bus High-Voltage Master Switch at the Driver's Workplace and ensure the Dash screen is **OFF**.
5. Power up (boot) the Proterra-supplied laptop containing the Proterra Diagnostic Tool.
6. Connect the Nexiq USB Link to the laptop.
Note: Using a USB cable connection, rather than Wi-Fi, is highly recommended.



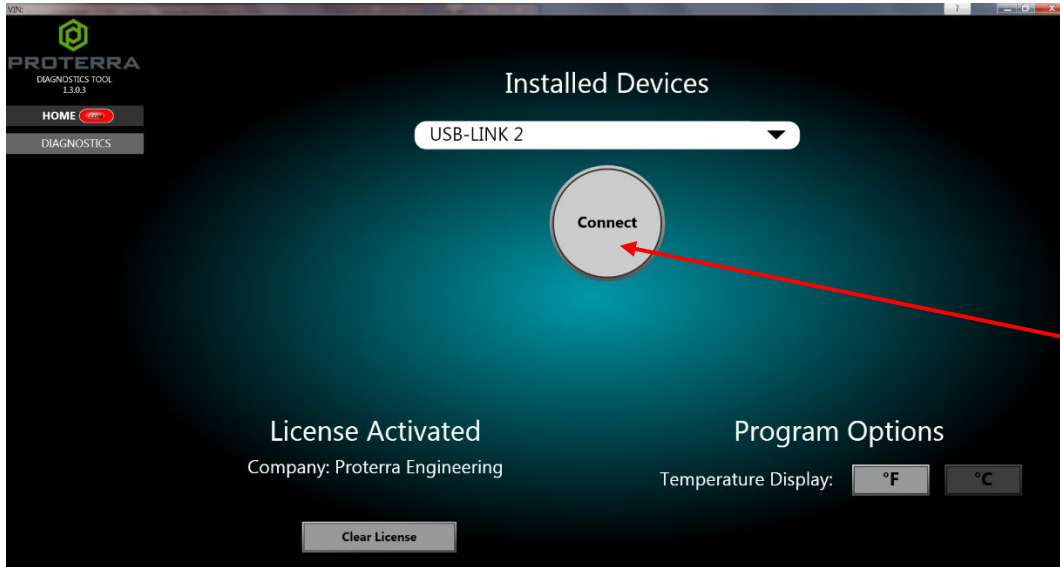
7. Connect the Nexiq USB Link to the Diagnostic Port located on the street side wheel well electronics cabinet (ECAB).



- On the laptop, double-click on the Proterra Diagnostics Tool software icon to start the software.



- On the Proterra Diagnostics screen, select “USB-LINK 2” in the drop-down box then click the “Connect Button.”

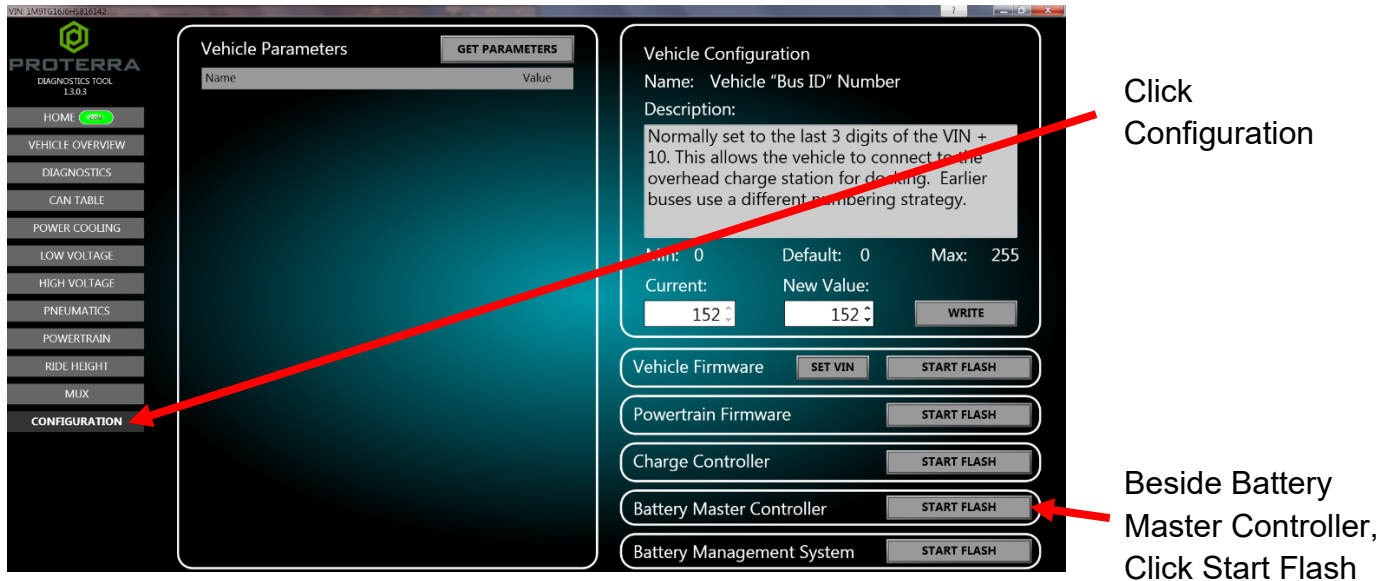


- The Home screen will open. Click on the Battery Packs Button. Verify that each pack has the correct version of software. This is shown circled in Red below. This must be checked for all installed packs by selecting each pack in the Drop Down menu.

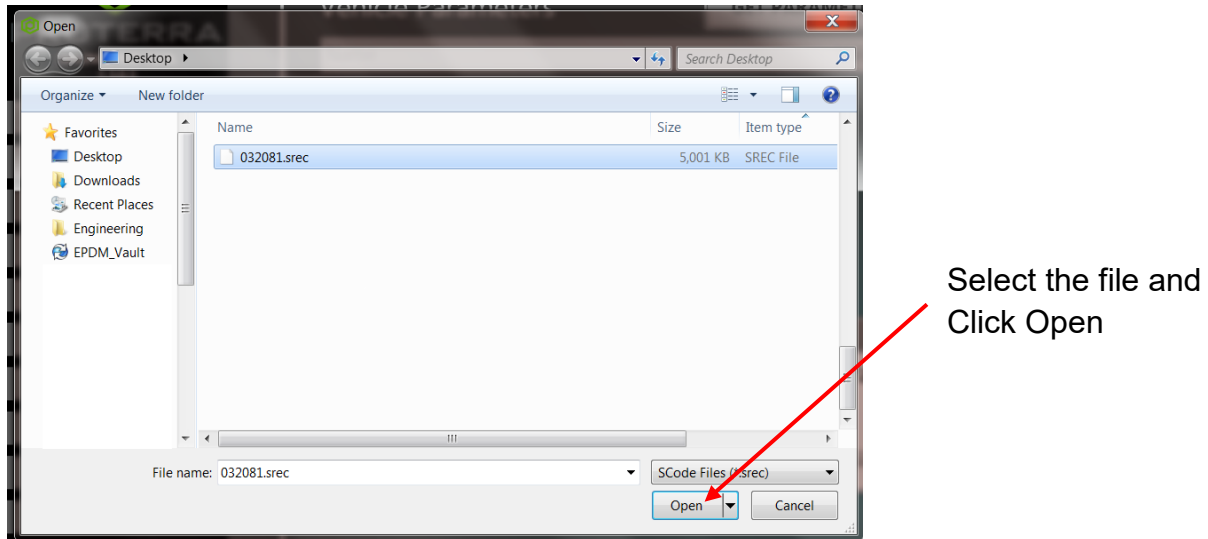
Note: If the software versions are not correct, Service Bulletin SB-18-67 must be performed before completing the rest of this procedure.

78°	77°	77°	77°	77°	77°	77°	77°	78°	78°	79°	79°	79°	79°	80°
3.993	3.993	3.993	3.993	3.994	3.990	3.992	3.992	3.994	3.994	3.992	3.993	3.994	3.992	3.993
3.994	3.992	3.992	3.992	3.992	3.992	3.993	3.991	3.992	3.992	3.992	3.993	3.992	3.991	3.993
3.990	3.991	3.990	3.991	3.991	3.990	3.989	3.990	3.991	3.990	3.990	3.990	3.993	3.990	3.990
3.993	3.994	3.993	3.994	3.995	3.995	3.994	3.993	3.992	3.994	3.993	3.993	3.994	3.993	3.993
3.991	3.992	3.992	3.992	3.992	3.992	3.992	3.992	3.991	3.992	3.992	3.992	3.992	3.992	3.992
3.991	3.991	3.991	3.992	3.992	3.992	3.992	3.991	3.991	3.991	3.994	3.991	3.992	3.991	3.991

11. Click on the “Configuration Button” to open the Configuration screen and then click the ESM Controller “Start Flash” Button.

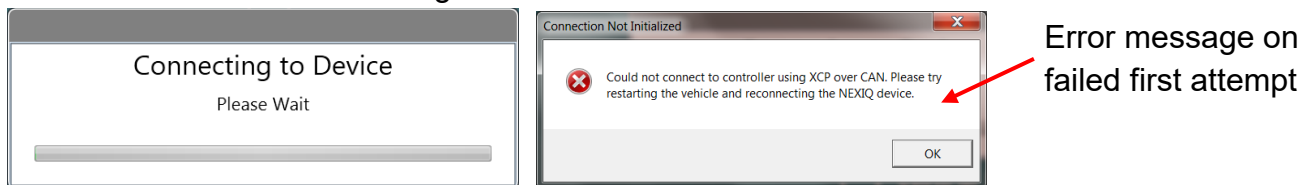


12. The following screen will be displayed. Navigate to the location where you stored the configuration file earlier. Select the file and click “Open” to load the file.

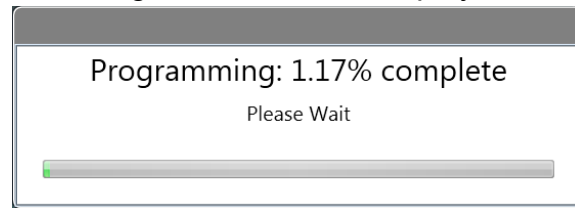
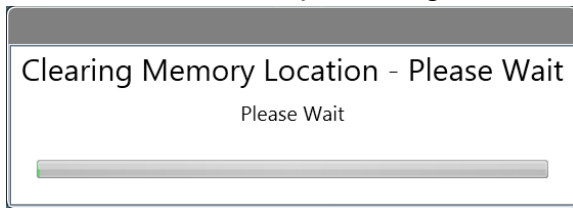


13. The Proterra Diagnostic Tool will attempt to connect to the device.

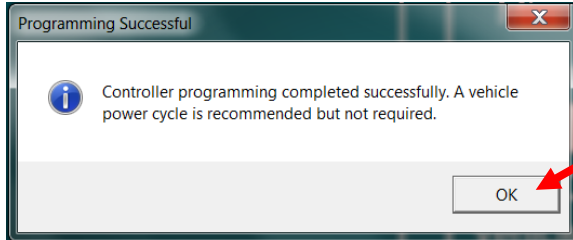
NOTE: You may receive an error on the first attempt. If so, retry by clicking the ESM Controller Start Flash button again.



14. When the software update begins, and the following screens will be displayed.



15. The software update may take several minutes to complete. When the update is complete the following screen will be displayed. Click the "OK" button to complete the update process.



Click OK

16. The software update is now complete.

17. Reset the bus.