ISSUE DATE:	1/30/2023
SERVICE BULLETIN SUBJECT:	800V RR Body Controller Software Update V6.13.0
VINs or MODELS AFFECTED:	Service Specified Buses
COMPLETE BY:	Next Service Opportunity
SERVICE BULLETIN #:	SC-23-15
LABOR OPERATION CODE:	EN61Z

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

800V RR Body Controller Update V6.13.0

Retrofit Description:

This procedure describes the process of updating the Body Controller software to the latest version.

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Summary of Software Changes

The high-level body controller updates are listed below.

- Wire Mirror Heat to 24VDC Output.
- Change Ferry Height Speed Limit Configuration.
- Allow Auto-lower after Over-Raise at 5mph.

Tools/Programs Required

Tools Required:

- Laptop Computer
- Nexiq USB-Link 2

Programs Required:

- Proterra Diagnostics Tool

Software Files Required / Preparation

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. Secure the bus with the Vehicle Master Disconnect turned to the "ON" position in the rear of the bus.

Component	Part Number		Version
Body Controller	063520		6.13.0

It is recommended that you copy the entire "service bulletin files" folder to your local machine in order to more effectively keep track of the software versions you are deploying:
\\bus.local\files\Engineering\Service Bulletins\Service Bulletin Files for SC-23-15\

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BODY SOFTWARE UPDATE PROCEDURE

Description:

This document contains the necessary information to update the Body Controller on a Proterra Vehicle. This controller provides the control algorithms for body functionality on 800V models. This covers the control logic relating to driver inputs and display, stop requests, doors, interior and exterior lighting, and ramp control.

Tools/Programs Required:

Tools Required:

- Laptop Computer
- Nexiq USB-Link 2

Programs Required:

- Proterra Diagnostics Tool

Software Files Required / Preparation

To program the body controller, you will need a *.ZR32A_A data file. This file contains the necessary firmware files and a baseline configuration to provide an operational bus body. The bus may need to be configured to match customer specific functionality after programming.

If the vehicle has already been configured, the Proterra Diagnostics Tool will attempt to automatically carry the configuration information forward into the new software version.

If needed, configuration information is contained in the released customer configuration documentation. Ensure that you also have the configuration definition for the customer's vehicle.

IMPORTANT: NEVER access the software from the USB memory device or network drive, ALWAYS copy the software files to your computer hard drive and access the software from this location.

Preparing the Vehicle to be Programmed

When programming a vehicle, it is critical that the low-voltage batteries remain connected throughout the process. Ensure that the LV batteries are fully charged before starting the process. If they are low you can use the vehicle to recharge them buy turning on high-voltage, or you can place the bus on a low-voltage charger for the duration of the process.

Connecting to the Vehicle

This process will guide the user to connect to the vehicle with the Proterra Diagnostics Tool.

1. Power on and login to the Proterra-Supplied laptop or a comparable PC that has the Proterra Diagnostics Tool software installed with a valid license.

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2. Turn on the 12/24V rear Vehicle Master Disconnect located at the curbside rear charge port access panel.

Vehicle Master Disconnect

3. Connect the Nexiq USB Link2 device to the laptop and to the OBDII Diagnostic Port located in the streetside wheel well box.

4. Turn the Driver's Master Switch to the "ACC" position.

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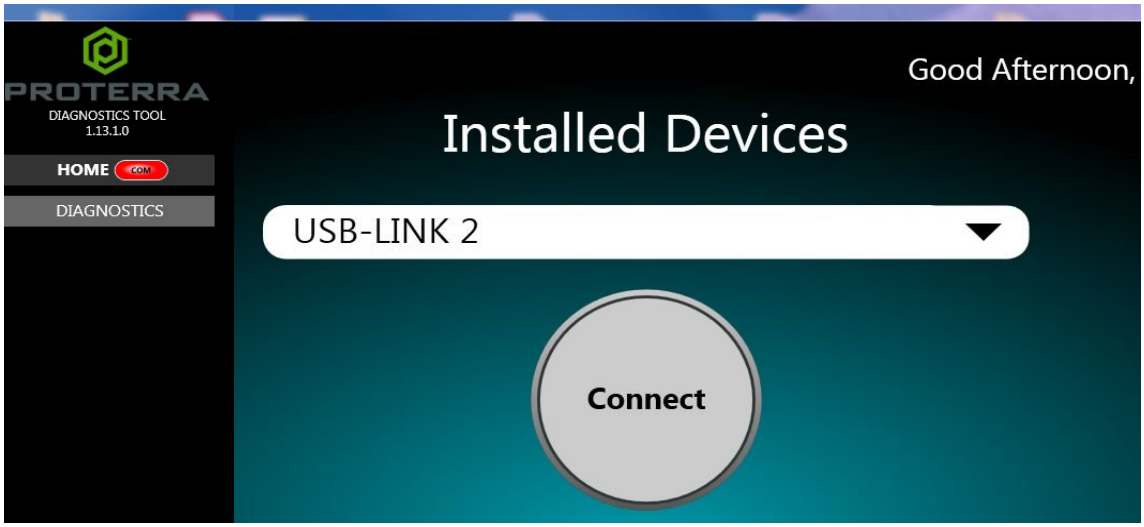
5. On the laptop, double-click on the Proterra Diagnostics Tool software icon to start the software.

6. When the program opens, read and click “OK” for the high-voltage safety prompt.

7. On the Home tab, select the appropriate device from the drop-down menu and click “Connect”.



8. Once the Proterra Diagnostics Tool has connected to the vehicle, you will have a VIN number and connection status displayed on the Home screen, and tabs available to navigate. If you do not, double check that the low-voltage batteries are connected and that the Nexiq tool is plugged in.

Download and Store Existing Parameters

Sometimes you might want to download and store the customer specific parameters from the vehicle. This can be useful when comparing two vehicles that are behaving differently, or if you are replacing the ZR32A controller on a vehicle.

1. After the first vehicle has been completed and verified, disconnect the Proterra Diagnostics Tool and then reconnect.

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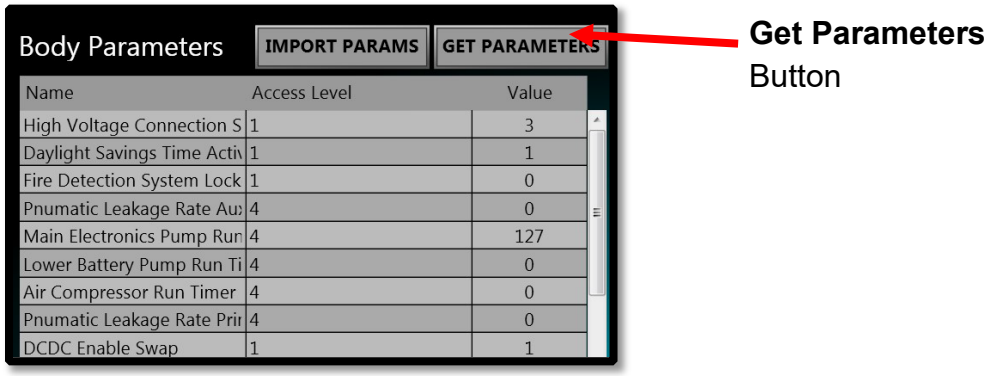
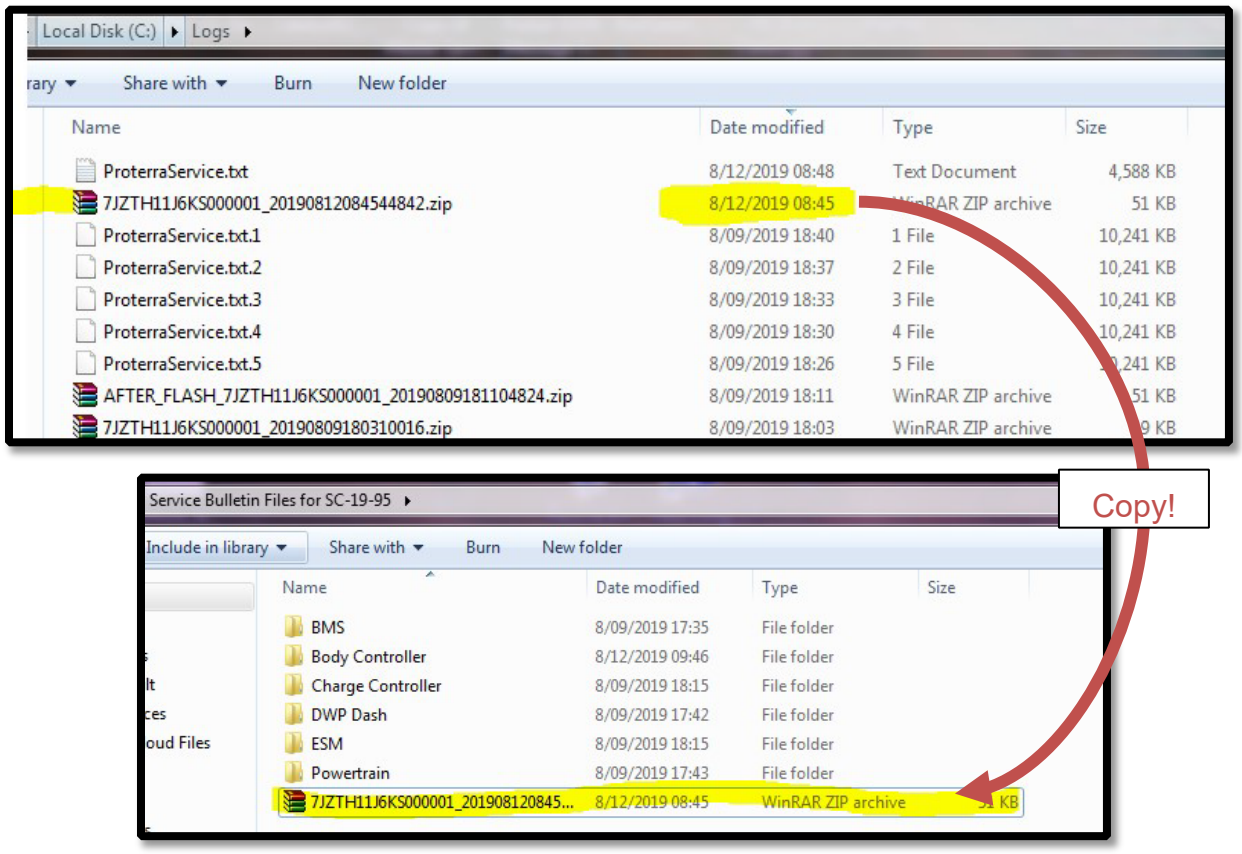
2. Navigate to the Configuration tab and click the “Get Parameters” button. This will download the latest parameter set to the “C:\Logs” folder on your machine.



3. In windows file explorer, navigate to the “C:\Logs” folder. Copy the latest downloaded *.zip file to a folder for the specific customer and vehicle.



4. Do not rename the file as the tool will follow the naming convention when reloading the file.

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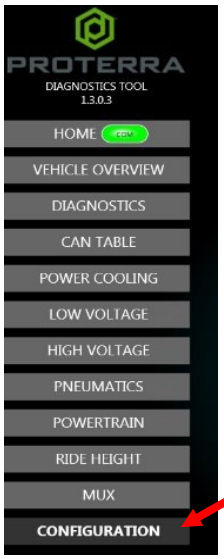
Update Using the Proterra Diagnostic Tool

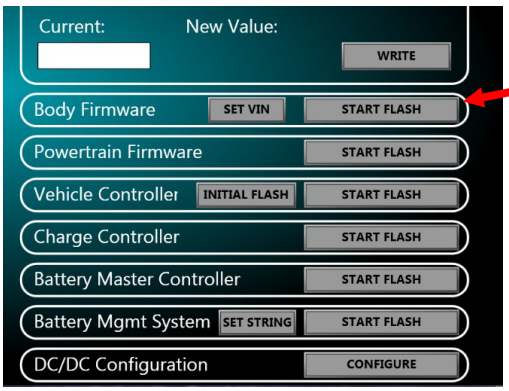
1. Navigate to the CONFIGURATION tab in the left menu.



Click **CONFIGURATION**

2. If this is a replacement controller, select the “SET VIN” and program the controller to match the vehicle VIN, then proceed to step 3. If not a replacement controller, proceed to step 3.

3. Select the option for Body Firmware “START FLASH”.



Beside Body Firmware, Click **START FLASH**

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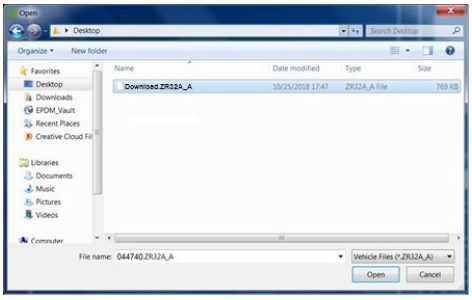
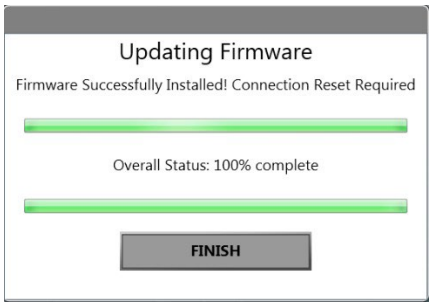
4. In the pop-up window, select the software flash file to load to the controller. The correct file is named “063520_6_13_0.”



5. The Programming window will come up and will take a few minutes to complete. The process will flash five different files to the controller.

6. After the controller is updated the tool will automatically try to copy the original configuration to the new software. Since there is a possibility that configuration options change it is important to check the configuration after restarting the vehicle.



7. Once the process has finished, cycle power to the bus by moving the Driver’s “Master Switch” back to the “OFF” position before continuing.

8. Return the bus to service.

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