



INSTRUCTION TO SERVICE

ITS61469		September 24, 2025
SECTION:	290 – ELECTIRCAL SCHEMATICS	
SUBJECT:	Update PLC Program + IP Configuration per EEB-0047	
ISSUE:	Freudenberg Gen 3 batteries (XMOD125E, XMOD123E, XMP123E) recall.	
SUMMARY:	The state of charge limits for depot and overhead sessions are being reduced to limit battery energy. Both depot and overhead charge sessions will consider the batteries to be full at 75% State of Charge (SoC).	

ITS61469

Ref. NHTSA Recall No.	Ref. Transport Canada Recall No.
25V631	2025-495

THIS ITS DOCUMENT SHOULD BE RETAINED AND REFERRED TO FOR FUTURE MAINTENANCE UNTIL THE NEW FLYER PARTS AND/OR SERVICE MANUAL IS UPDATED TO REFLECT WORK DONE AS A RESULT OF THIS DOCUMENT. ENSURE THAT THIS DOCUMENT IS AVAILABLE FOR PARTS AND MAINTENANCE STAFF GOING FORWARD.

PROCEDURE:

1. Set the park brake and chock wheels.
2. All procedures are to start with the MRS is in the OFF position until otherwise noted.
3. Ensure the hazard switch is in the ON position during all below procedures.
4. Ensure laptop and bus LV batteries are fully charged or plugged into a power source/external, offboard charger respectively while flashing. It is imperative that neither the laptop nor bus run out of batteries while programming.

⚠ WARNING: DO NOT TURN OFF BATTERY DISCONNECT SWITCH. CONTROLLERS CANNOT BE PROGRAMMED WITH LV BATTERIES DISCONNECTED.

Part 1: Updating the PLC

5. Connect the USB interface of your NEXIQ to your laptop.
6. Connect the CAN interface of your NEXIQ to Channel 1 (Pins C and D) of the Rear Vehicle Diag port.
7. Open the PLC program in the VMM software.
8. Select Tools and Query VMMs.

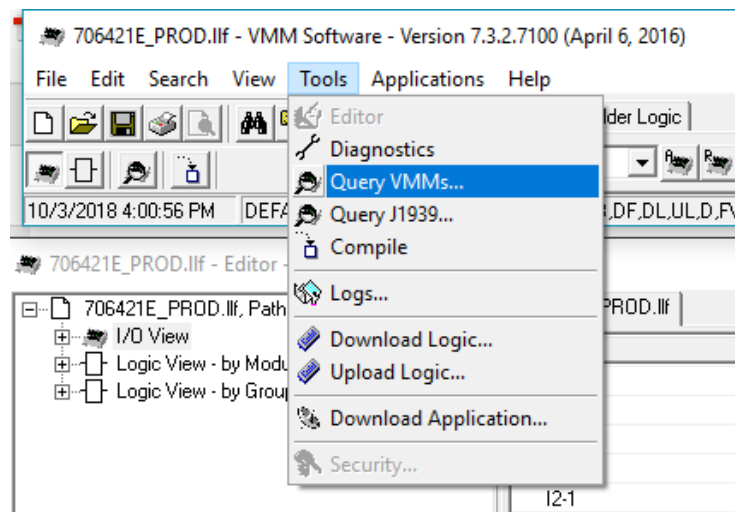


Figure 1: Query VMMs Option

9. Ensure you are communicating with all the nodes in the query screen prior to downloading.
10. Select download logic.

11. Ensure the correct file name and revision appear in the file window.

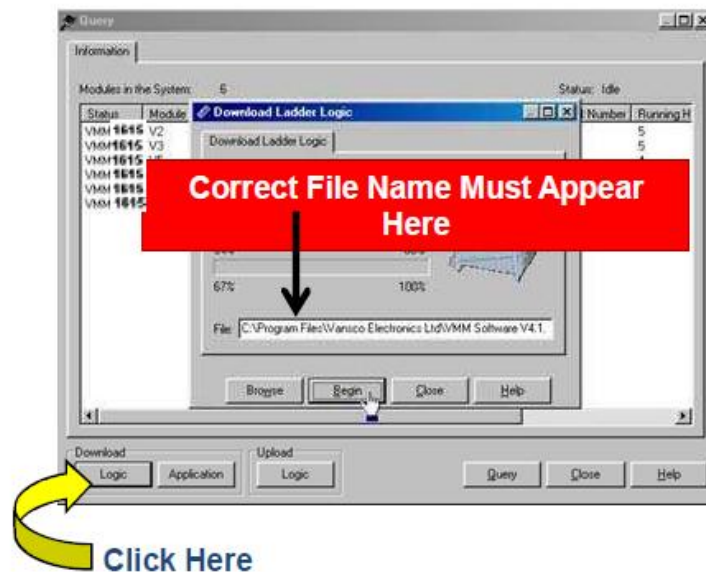


Figure 2: File Selection and Flashing Start

12. The software will verify the correct number of VMMs are found. Do not download program if all VMMs are not located. If the correct number of VMMs were found, select Yes.
13. Flashing will happen in two parts; the main logic and the J1939 Table data will be 2 separate progress screens. Make sure not to close anything after the first progress screen reaches 100% as another one will appear after that also needs to complete before flashing is completed.
14. Once flashing has truly finished, allow the bus to stay awake for 15 minutes without knifing the bus or turning off the hazards.

This ensures that the VMMs stay awake long enough to load the program into the dash with the new PLC program. This is an important step as the dash may get stuck rebooting repeatedly if interrupted while it is being programmed by the other VMMs. This needs to happen as the DPS70 has a slave VMM inside of it that is not programmed as a part of the above outlined VMM flashing process.

Part 2: Updating the IP Config

15. Load the supplied IP Cluster Configuration File onto the root of an empty flash drive.

- ☞ **NOTE: DO NOT UNZIP THE CONFIG FILE.** It is intentionally packaged as a “.tar.gz” file and needs to stay that way for flashing.
- ☞ **NOTE: DO NOT PUT THE CONFIG FILE INTO A SUB-FOLDER.** It needs to be right in the root (the base directory, shown below) of the flash drive for the Cluster to find the file. It should be the only config file in the root of the flash drive intended to be used to be sure the correct file is selected.

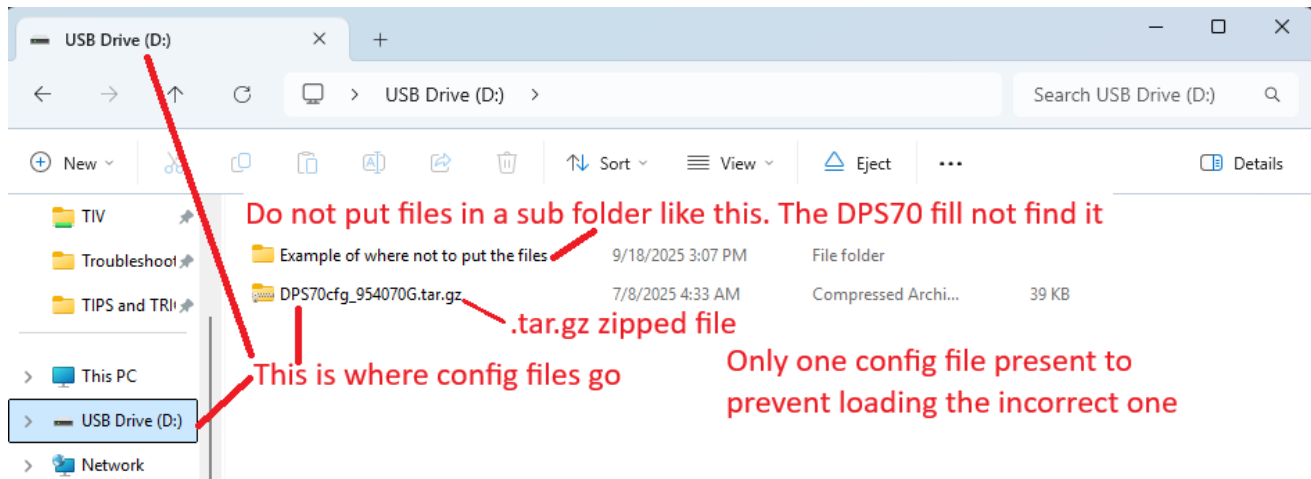


Figure 3: Flash Drive Examples

16. Connect the flash drive to the dash, either through the external USB-A connector underneath the dash, or with an added harness directly into the back of the dash's 4-pin USB connector port (only applies to a very small selection of dashes that lack the added USB port underneath).
17. Turn the MRS to the ON position.
18. Enter the IP Cluster into Service Mode by tapping on the Service Mode Icon (shown below) in the top right corner of the touch screen.

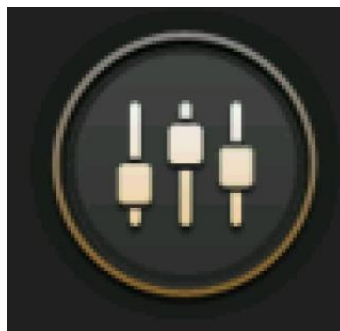


Figure 1: Service Mode Icon

19. A prompt for a password will appear, it is “9876543210” which gives full access to diagnostic mode and many diagnostic features.
20. Once in Service Mode, tap on the “Update Application” button (shown below).

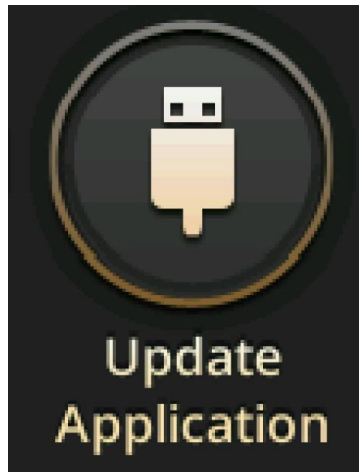


Figure 2: Update Application Button

21. Select the supplied IP Cluster Configuration file, and then press the green check mark to proceed. A warning will appear, press the green check mark again to start flashing.
 - a. If the configuration file is not appearing, double check that the rules outlined in Step 15 are followed (no unzipping, no sub folders, no multiple configs in the same flash drive root directory).
22. Once flashing is complete, the on-screen instructions will inform you to eject the flash drive, meaning it is safe to remove the flash drive.

LABOUR ESTIMATE				
	Operation	Number of Technician(s)	Hours	Labor Time T X HR
1	Update PLC Program	1	0.25	0.25
2	Update IP Configuration File	1	0.25	0.25

SPECIAL TOOLS REQUIRED					
Item	Part Number	Description	Qty.	Units	Notes
1	6467705	Nexiq USB 2.0 w/ Harness	1	EA	For PLC
2	N/A	VMMS (Vansco Software)	1	EA	For PLC
3	N/A	Flash drive with empty root directory	1	EA	For IP Config