

REFERENCE:	Nova Bus Manuals
SECTION:	02: Doors and Mechanism
RS N°:	MQR 7621-2396
EFFECTIVE IN PROD.:	2021NO
TC RECALL N°:	N/A
NHTSA RECALL N°:	21V929

APPLICATION DEADLINE: N/A
CLAIM REFERENCE NUMBER: SR-5222

SUBJECT:	Rear Plug-Type Door Opening with No Driver Request When Bus Comes to a Stop.
JUSTIFICATION:	Implementation of a hardwired, active high, door open control signal between the VBEA multiplex system and the vDEC rear door controller to replace the original J1939 network door open control signal.

LEVEL	DESCRIPTION	DIRECT CHARGES		TIME
		LABOUR	MATERIAL	
1	Verify 3 Upgrade Prerequisites & Perform Abbreviated MRDI Check	Nova Bus	–	0.75 h
2	–	–	–	–

MATERIAL

QTY	PART N°	REV.	DESCRIPTION	REPLACES PART N°
LEVEL 1				
–	–	–	–	–
LEVEL 2				
–	–	–	–	–

DISPOSAL OF PARTS

REMOVED PARTS ARE:	DISCARDED *	RETAINED	* Dispose of the unused parts and the defective parts in accordance with local environmental standards in effect.
	–	–	

REVISION HISTORY

REV.	DATE	CHANGE DESCRIPTION	WRITTEN BY
NR	2021NO30	Initial release	Devanand

APPROVED BY:

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CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
New York City Transit New York - NYCT	LC79	9624	9628	L82L3M977783	L82L0M977787	5
New York City Transit New York - NYCT	LC79	9636	9637	L82LXM977795	L82L1M977796	2
New York City Transit New York - NYCT	LC79	9639	9639	L82L5M977798	L82L5M977798	1
New York City Transit New York - NYCT	LC79	9644	9644	L82L5M977803	L82L5M977803	1
New York City Transit New York - NYCT	LC79	9648	9648	L82L2M977807	L82L2M977807	1
New York City Transit New York - NYCT	LC79	9650	9650	L82L6M977809	L82L6M977809	1
New York City Transit New York - NYCT	LC79	9652	9654	L82L4M977811	L82L8M977813	3
New York City Transit New York - NYCT	LC79	9656	9674	L82L1M977815	L82L3M977833	19
New York City Transit New York - NYCT	LC79	9676	9676	L82L7M977835	L82L7M977835	1
New York City Transit New York - NYCT	LC79	9678	9678	L82L0M977837	L82L0M977837	1
New York City Transit New York - NYCT	LC79	9680	9680	L82L4M977839	L82L4M977839	1
New York City Transit New York - NYCT	LC79	9682	9683	L82L2M977841	L82L4M977842	2
New York City Transit New York - NYCT	LC79	9691	9691	L82L3M977850	L82L3M977850	1
New York City Transit New York - NYCT	LC79	9694	9694	L82L9M977853	L82L9M977853	1
New York City Transit New York - NYCT	LC79	9698	9702	L82L6M977857	L82L8M977861	5
New York City Transit New York - NYCT	LC79	9707	9707	L82L7M977866	L82L7M977866	1
New York City Transit New York - NYCT	LC79	9710	9715	L82L2M977869	L82L8M977875	6
New York City Transit New York - NYCT	LC79	9717	9721	L82L1M977877	L82L3M977881	5
New York City Transit New York - NYCT	LC79	9723	9724	L82L7M977883	L82L9M977884	2
New York City Transit New York - NYCT	LC79	9727	9728	L82L4M977887	L82L6M977888	2
New York City Transit New York - NYCT	LC79	9730	9736	L82L4M977890	L82L9M977903	7
New York City Transit New York - NYCT	LC79	9738	9740	L82L2M977905	L82L6M977907	3
New York City Transit New York - NYCT	LC79	9742	9742	L82LXM977909	L82LXM977909	1
New York City Transit New York - NYCT	LC79	9745	9746	L82LXM977912	L82L1M977913	2
New York City Transit New York - NYCT	LC79	9748	9780	L82L5M977915	L82L7M977950	33
New York City Transit New York - NYCT	LC79	9782	9784	L82L0M977952	L82L4M977954	3
New York City Transit New York - NYCT	LD64	9787	9787	L82L8M977956	L82L8M977956	1
New York City Transit New York - NYCT	LD64	9796	9796	L82L4M977971	L82L4M977971	1
New York City Transit New York - NYCT	LD64	9800	9800	L82L1M977975	L82L1M977975	1
New York City Transit New York - NYCT	LD64	9802	9803	L82L5M977977	L82L7M977978	2
New York City Transit New York - NYCT	LD64	9805	9806	L82L5M977980	L82L7M977981	2
New York City Transit New York - NYCT	LD64	9810	9810	L82LXM977991	L82LXM977991	1
New York City Transit New York - NYCT	LD64	9812	9812	L82L3M977993	L82L3M977993	1
New York City Transit New York - NYCT	LD64	9829	9832	L82L4M9778022	L82LXM9778025	4
New York City Transit New York - NYCT	LD64	9841	9841	L82L6M9778040	L82L6M9778040	1
New York City Transit New York - NYCT	LD64	9844	9844	L82L1M9778043	L82L1M9778043	1

**WARNING**

FOLLOW YOUR INTERNAL SAFETY PROCEDURES.

PROCEDURE

- 1.1. Park the vehicle on an even surface with transmission on neutral (N).
- 1.2. Apply the parking brake.
- 1.3. Set the master control switch to the STOP position (see figure 1).

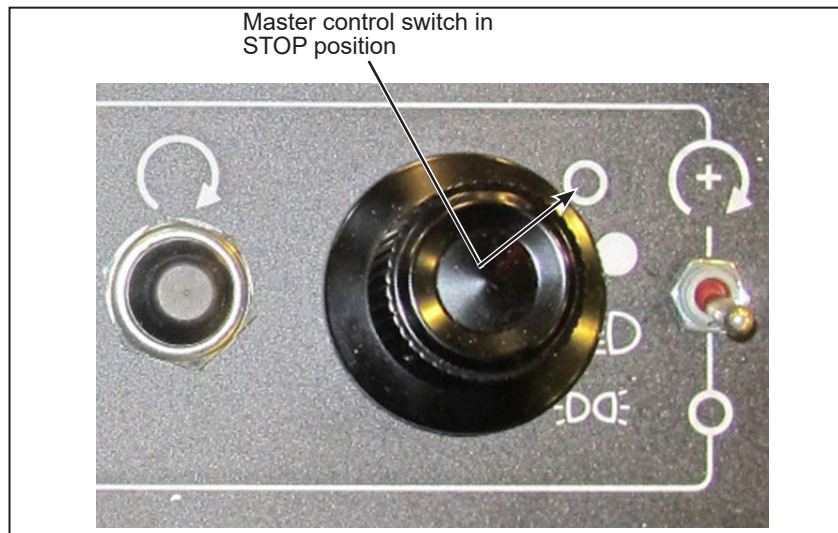


Figure 1 - Master Control Switch in STOP Position

- 1.4. Set the battery disconnect switch in the battery compartment to the OFF position (see figure 2).

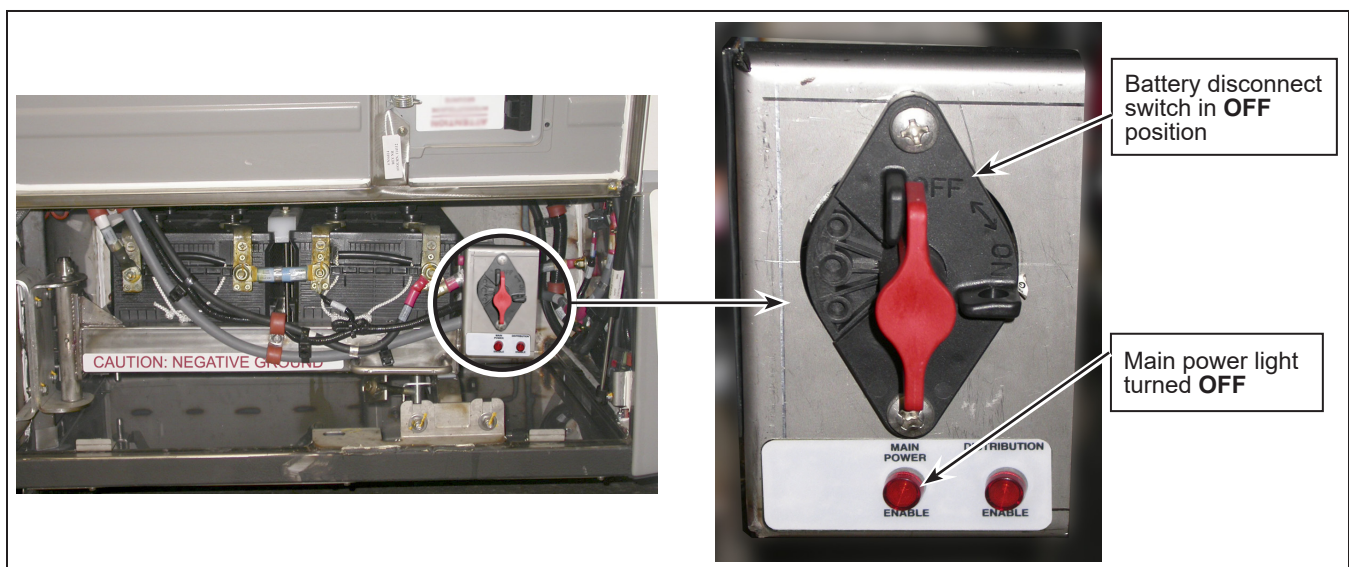


Figure 2 - View of Battery Disconnect Switch

- 1.5. Locate and access the RF4 panel (panel 79) to check if the N632001060 wire kit is present and properly installed.

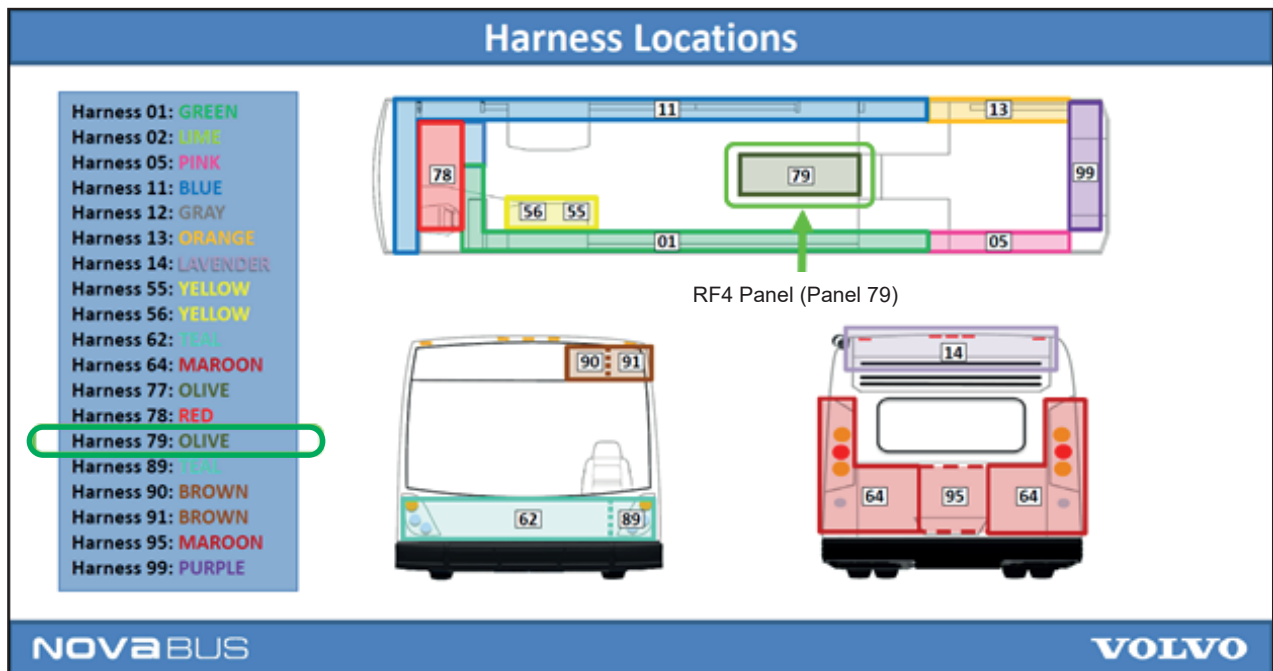


Figure 3 - Location of RF4 Panel (Panel 79)

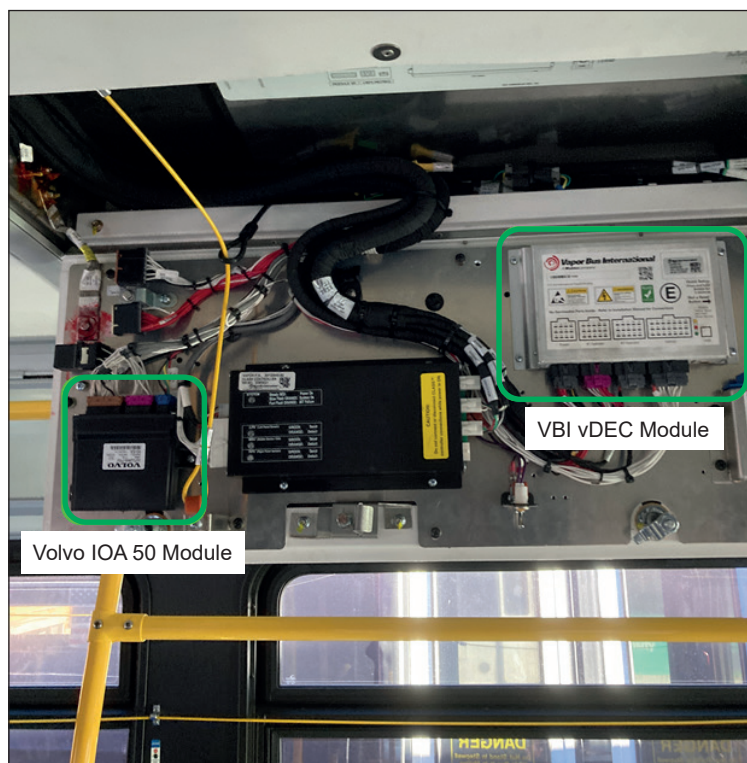


Figure 4 - View of Volvo IOA 50 Module and VBI vDEC Module Inside the RF4 Panel

**NOTE**

Check if the N632001060 Wire Kit (Added Wire 79-167) is Properly Installed (Routed, Secured & Connected at Both Ends).

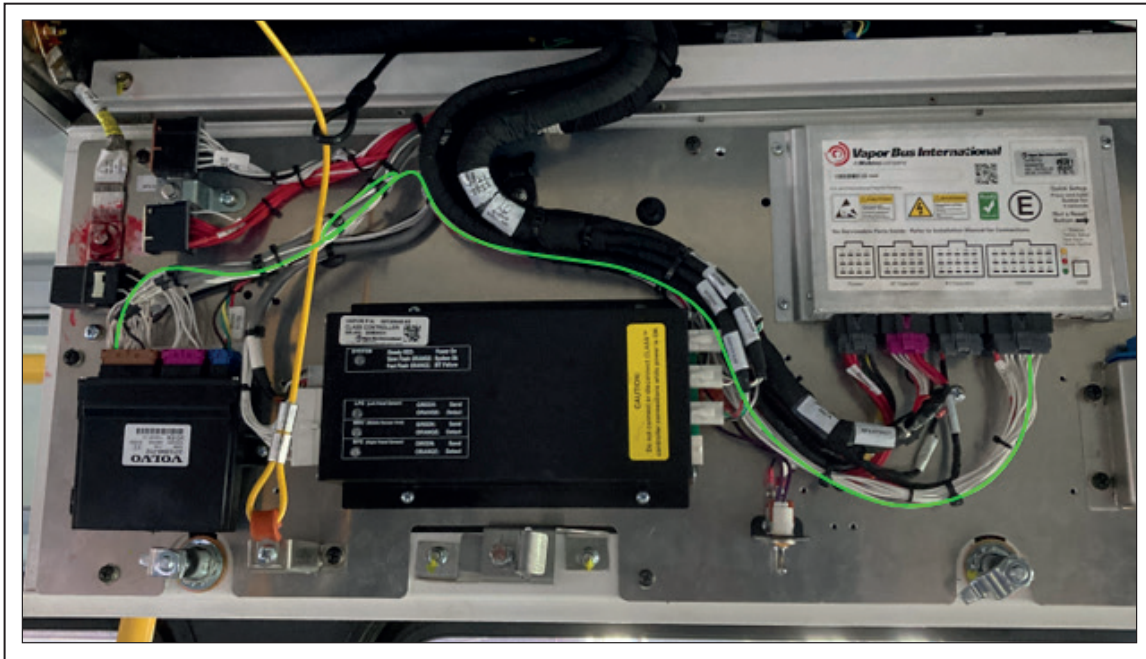


Figure 5 - Connection from vDEC "Vehicle" Position 14 (RF4-X79AC3/14) to IOA 50 "J1" Position 13 (RF4-X79H1/13)

- 2.1. While in the RF4 panel, locate the vDEC module USB port (on module lower right corner, next to status LEDs) and connect it with a USB 2.0 A-B cable to a laptop PC running the VBI vDEC V3.12.2 diagnostic software.
- 2.2. Refer to VBI Technical Bulletin "TB08-03-376 – Vapor Dual Electric Controller (vDEC) Diagnostic Program Guide for Version 3" for details on how to install the vDEC diagnostic software and to setup the USB Virtual COM Port (VCP) serial communication interface driver on the laptop PC.
- 2.3. If the USB-to-serial communication interface setup is completed and the connection is successful, the "Product ID" dialog box should appear on the laptop screen upon launching the vDEC diagnostic software and the vDEC firmware version ID should be displayed within the "Product" field of this dialog box.
- 2.4. Check if the version ID v3.05.7 (or greater) and the appropriate formalized parameters file name are being displayed in the "Product" and "Parameters" fields to confirm that the vDEC firmware was properly updated.

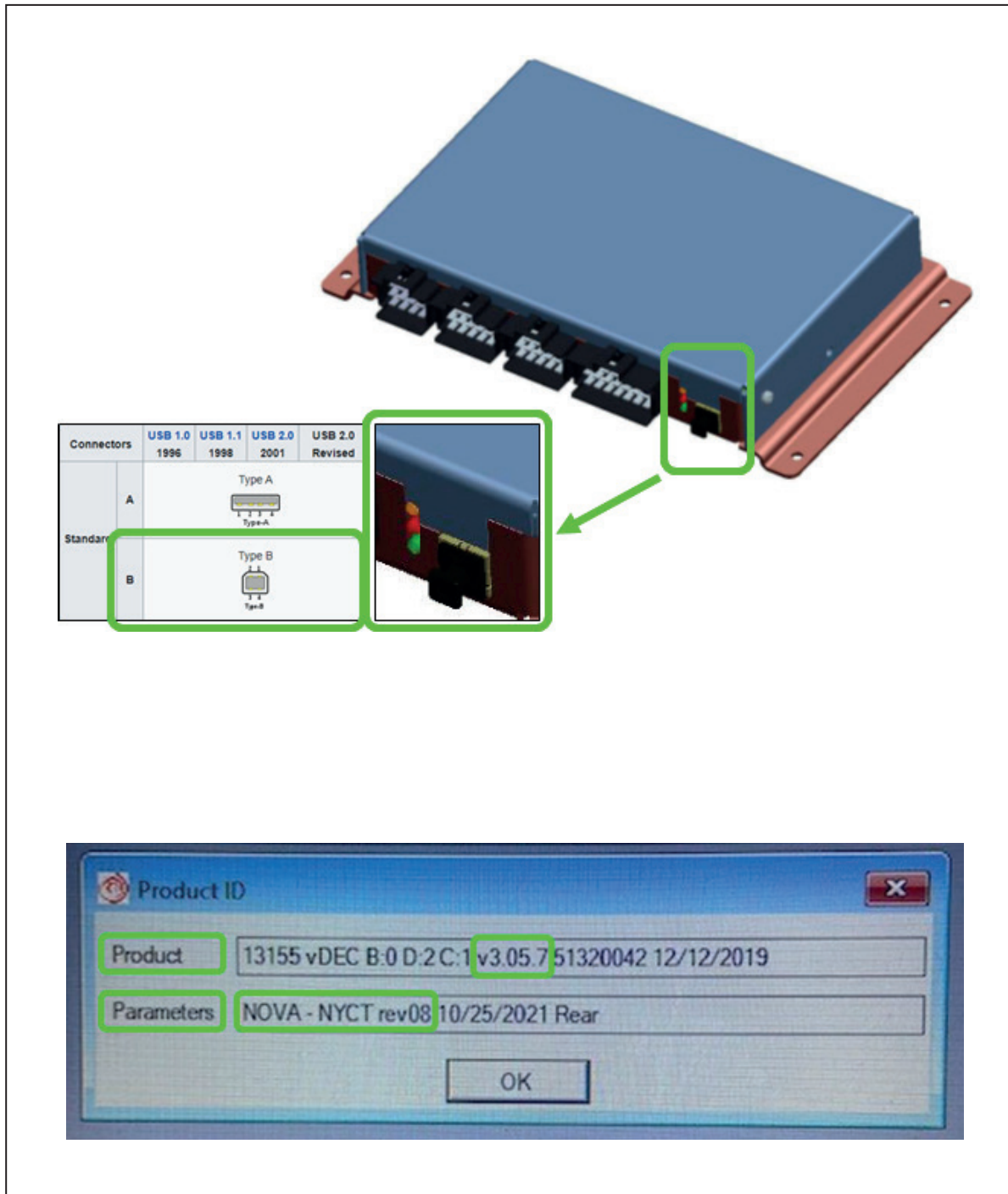


Figure 6 - Checking the vDEC Firmware Version

- 3.1. Access the Volvo multiplex system “Master ID” DB9 connector located inside the driver overhead left console and connect it with a serial-to-USB cable to a laptop PC running the Volvo application software.
- 3.2. Refer to section 16-601.41 of the Nova Maintenance Manual for details on how to use the Volvo application software and to setup the USB Virtual COM Port (VCP) serial communication interface driver on the laptop PC.
- 3.3. If the USB-to-serial communication interface setup is completed and the connection is successful, the VBEA software Full Body (FB) package version and revision should be displayed in Volvo’s application main screen.
- 3.4. Check if the appropriate FB software package version and revision information is displayed as follows by the Volvo application software to confirm that the VBEA multiplex system software was properly updated.

FB_NYC4HE_M_02 rev. J for LC79 buses

FB_NYC4HE_M_03 rev. C for LD64 buses

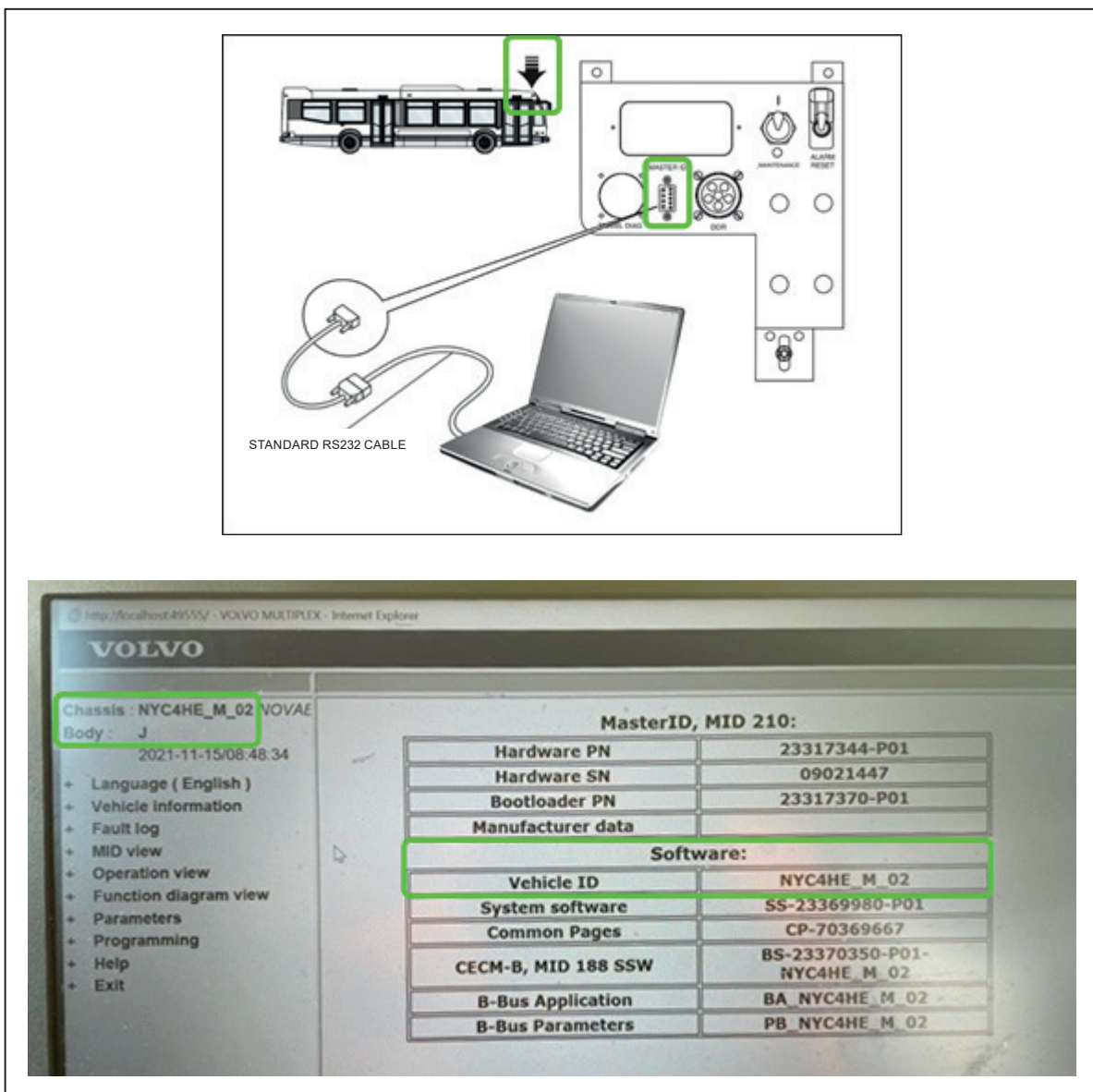


Figure 7 - Checking the VBEA Software Version and Revision

- 4.1. Once the 3 previous sections are successfully completed, proceed to perform this final certification / validation test procedure by executing the applicable checklist test plan instructions specified below.
- 4.2. Test results are to be recorded in an Excel file specific to each tested bus to track and testify that all needed verifications and validation tests were successfully passed before returning the bus into revenue service.

Execute the Applicable Certification Checklist Test Plan and Record the Test Results

- **Complete Checklist** (Test Plan Scenario Applicable to **First-Of** LC79 & LD64 Campaign Buses)



QJ 7621-2396 - FT5212 Complete Checklist (Test Plan Scenario for First-Of Campaign Buses) RevB.xlsx

- **Abbreviated Checklist** (Test Plan Scenario Applicable to **Following** LC79 & LD64 Campaign Buses)



QJ 7621-2396 - FT5212 Abbreviated Checklist (Test Plan Scenario for Other Campaign Buses) RevC.xlsx

- **MRDI (TSB 88-382, dated 11/9/2021) Annotated Copy** applicable to FT5212 Abbreviated Checklist



MRDI 88-382 Nova Electric Doors 20211109 - Annotated Copy for FT5212 Abbreviated Checklist RevC.pdf

- 4.3. Set the battery disconnect switch in the battery compartment to the ON position.
- 4.4. The bus can be returned into service.❖