

REFERENCE:	Nova Bus Manuals
SECTION:	16: Electrical System
RS N°:	MQR 7621-1881
EFFECTIVE IN PROD.:	N/A

APPLICATION DEADLINE: N/A

SUBJECT:	Replacement of obsolete AIC3 module by AIC4 module at +RF2.
JUSTIFICATION:	Obsolete AIC3 module needs to be replaced by the newer AIC4 module.

LEVEL	DESCRIPTION	DIRECT CHARGES		TIME
		LABOUR	MATERIAL	
1	Replace AIC3 module by AIC4 module.	Client	Client	45 min
2	Install a USB adapter cable	Client	Client	5 min

MATERIAL				
QTY	PART N°	REV.	DESCRIPTION	REPLACES PART N°
LEVEL 1				
1	N76971		Module AIC4	–
1	21816238		Display Adapter Cable	–
5	G5007996		Cable Tie Black 13.5"	–
				–
LEVEL 2 (5 % of 79 vehicles)				
1	21875266		USB Adapter Cable	–
–	–	–	–	–

To order, please contact Prevost Parts by phone at 1-800-771-6682, by fax at 1-888-668-2555 or by email at prevostparts.commandes@volvo.com. Specify document number, quantity of parts required and shipping address.

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.
	X	–	

REVISION HISTORY

REV.	DATE	CHANGE DESCRIPTION	WRITTEN BY
NR	2020FE19	Initial release	Nandan BS
R1	2020MA25	Add detailed programming procedure	Annie St-Jacques

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
Central Oklahoma Transportation Authority	L619	—	—	L82X7C3000367	L82X7C3000367	1
BC Transit - BCT - British Columbia	L604	9434	9434	L82U5C3000597	L82U5C3000597	1
Minnesota Valley Transit Authority - MVTA	L706	4252	4258	L82U4C4500127	L82UXC4500133	7
Ames Transportation Agency - Iowa	L707	660	661	S92U5C4500159	S92U1C4500160	2
Austin - CMTA - Texas	L635	5001	5001	S92U7C4500163	S92U7C4500163	1
BC Transit - BCT - British Columbia	L735	9435	9440	L82U4C3000848	L82U8C3000853	6
BC Transit - BCT - British Columbia	L736	9441	9446	L82U8D3000854	L82U7D3000859	6
Sudbury - Ontario	L740	831	833	L82U1D3000887	L82U5D3000889	3
Austin - CMTA - Texas	L636	5002	5022	S92U1D4500306	S92U0D4500328	21
University of Alabama - Alabama	L727	7026	7027	L82U4D4500310	L82U6D4500311	2
LYNX - Florida	L725	—	—	S92Y9D4500329	S92Y5D4500330	2
LYNX - Florida	L764	—	—	S92Y7D4500331	S92Y9D4500332	2
Austin - CMTA - Texas	L704	5051	5068	L82J7E4500471	L82J2E4500488	18
LYNX - Florida	L785	—	—	S92L6E4500505	S92L8E4500506	2
University of Alabama - Alabama	L787	7028	7029	L82J2E4500507	L82J4E4500508	2
MTD - Santa Barbara, California	L730	—	—	S92J8E4500567	S92J1E4500569	3

**WARNING**

FOLLOW YOUR INTERNAL SAFETY PROCEDURES.

PROCEDURE

- 1.1. Park the vehicle on a level surface and set the transmission shift selector in **NEUTRAL (N)**.
- 1.2. Apply the parking brake.
- 1.3. On the master control switch, select the **ENG STOP** position (**O**) (see figure 1).

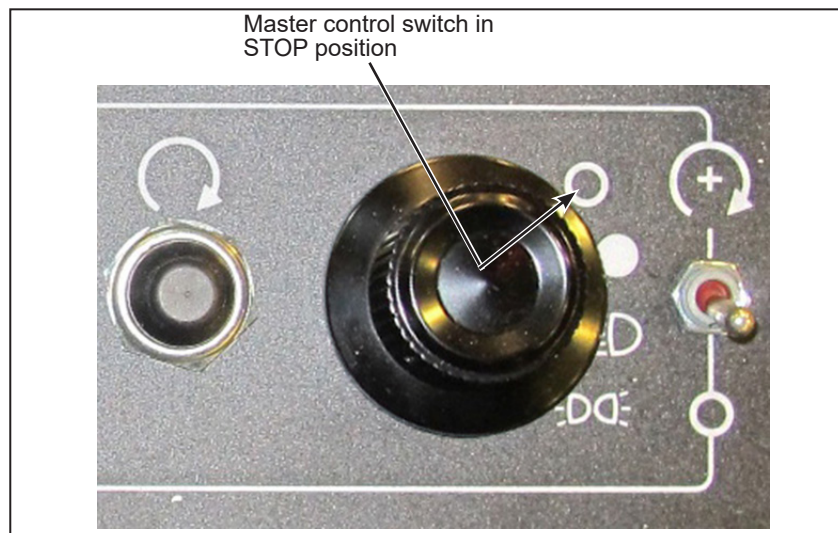


Figure 1 - Master Control Switch in STOP Position

- 1.4. In the battery compartment, put the battery disconnect switch in the **DISABLE** position (**OFF**) (see figure 2).

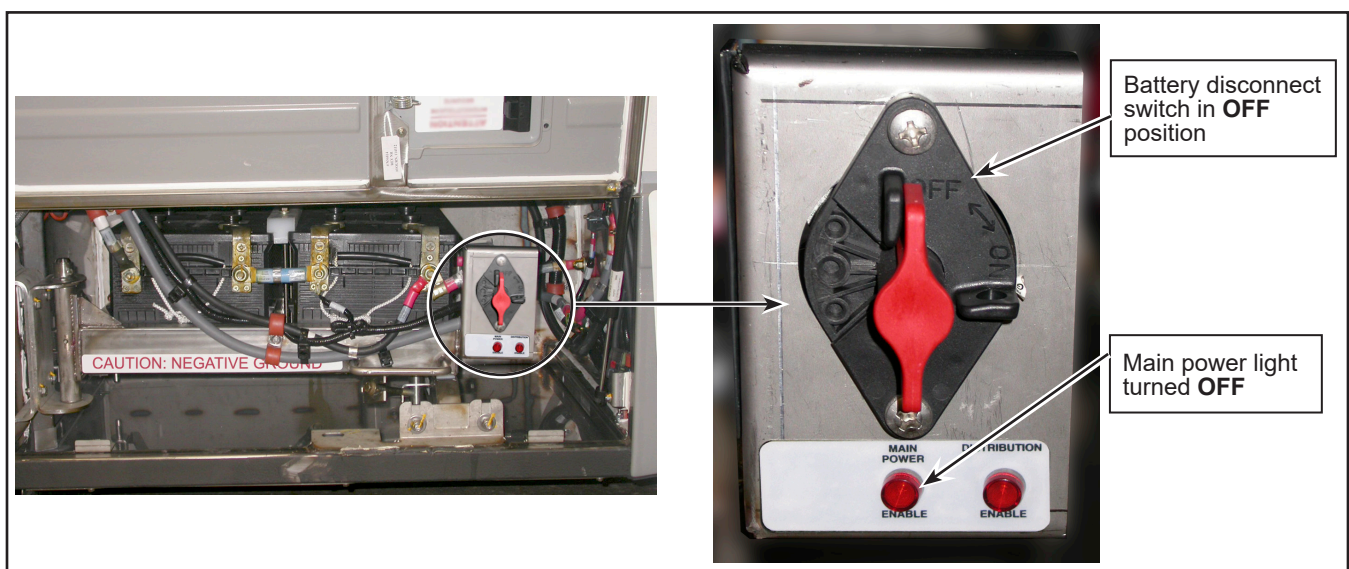


Figure 2 - View of Battery Disconnect Switch

**CAUTION**

Before removing, dismantling or maintaining any electrical component the electrician should take the necessary precautions to avoid any risk of personal injury or damage to the equipment.

ACCESSING THE +RF2 PANEL

- 1.5. Unlock the driver's overhead panel door latches and lower the panel access door (see figure 3).



Figure 3 - Typical View of +RF2 Panel

REMOVING THE AIC3 MODULE

- 1.6. Locate the AIC3 module (see figure 4).
- 1.7. Disconnect the display connector and the green JAE type connectors.
- 1.8. Depending on the vehicle configuration, also disconnect the RJ-45 type connector and the Mitsumi USB type connector.
- 1.9. Remove and retain the four screws holding the AIC3 module to the +RF2 panel.
- 1.10. Remove the module from the panel.

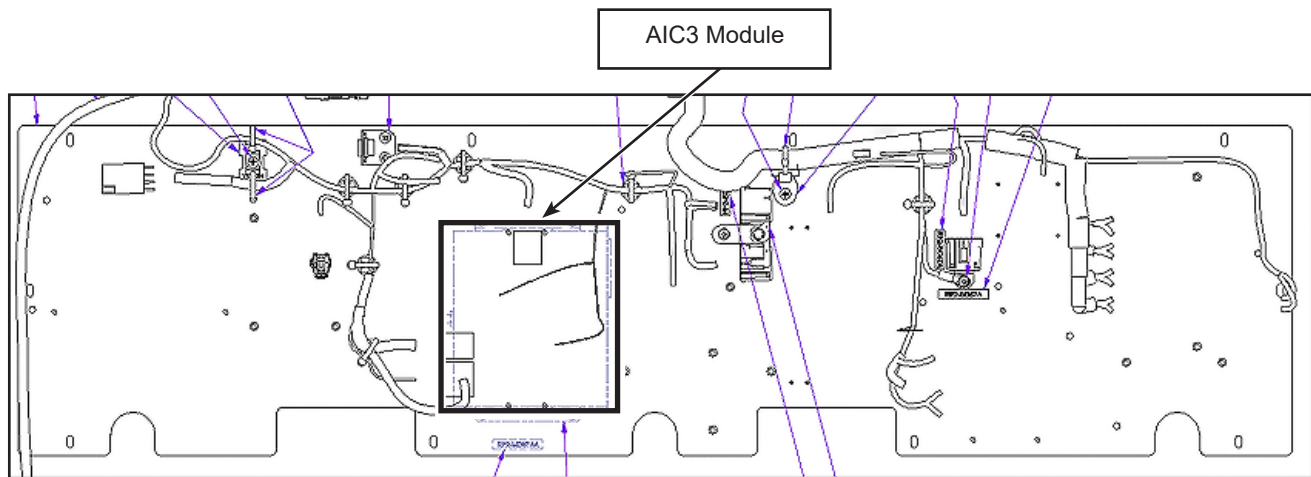


Figure 4 - AIC3 Module Located on the Right Panel Section

INSTALLATION OF AIC4 MODULE

- 1.11. Using the previously retained screws, install the AIC4 module PN N76971 at the location where AIC3 was removed.
- 1.12. Reconnect the green connectors to the AIC4 module (reconnect the RJ-45 connector if present).
- 1.13. Connect the display adapter cable PN 21816238 between the AIC4 module VGA connection and the display cable previously disconnected (see figure 5 & 6).

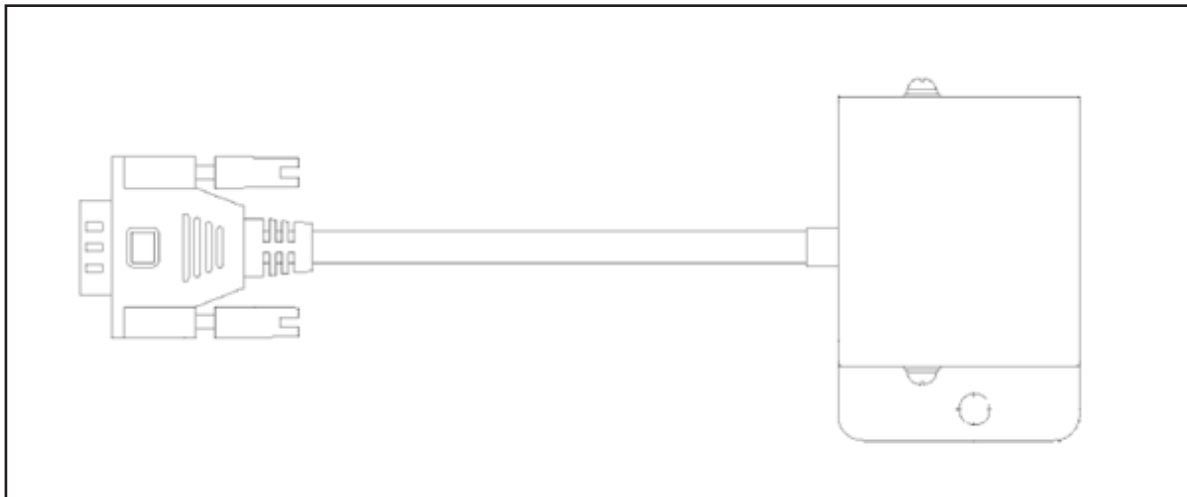


Figure 5 - Display Adapter Cable



Figure 6 - Rear View of AIC4 Module



NOTE

If a Mitsumi (USB) connector type has been disconnected from AIC3 module then continue with Level 2 procedure using USB adapter cable PN 21875266.

PROGRAMMING THE AIC4 MODULE

1.14. Program the AIC system using the program and revision shown in the table entitled "AIC programs List" or the one recommended by your customer support manager.

AIC program List

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY	PROGRAMS
		FROM	TO	FROM	TO		
Central Oklahoma Transportation Authority	L619	—	—	L82X7C3000367	L82X7C3000367	1	AIC4FW_USA_S_I
BC Transit - BCT - British Columbia	L604	9434	9434	L82U5C3000597	L82U5C3000597	1	AIC4FW_BCT_S_I
Minnesota Valley Transit Authority - MVTA	L706	4252	4258	L82U4C4500127	L82UXC4500133	7	AIC4FW_USA_S_I

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY	PROGRAMS
		FROM	TO	FROM	TO		
Ames Transportation Agency - Iowa	L707	660	661	S92U5C4500159	S92U1C4500160	2	AIC4FW_USA_S_I
Austin - CMTA - Texas	L635	5001	5001	S92U7C4500163	S92U7C4500163	1	AIC4FW_AUS_S_I
BC Transit - BCT - British Columbia	L735	9435	9440	L82U4C3000848	L82U8C3000853	6	AIC4FW_BCT_S_I
BC Transit - BCT - British Columbia	L736	9441	9446	L82U8D3000854	L82U7D3000859	6	AIC4FW_BCT_S_I
Sudbury - Ontario	L740	831	833	L82U1D3000887	L82U5D3000889	3	AIC4FW_SUD_D_I
Austin - CMTA - Texas	L636	5002	5022	S92U1D4500306	S92U0D4500328	21	AIC4FW_AUS_S_I
University of Alabama - Alabama	L727	7026	7027	L82U4D4500310	L82U6D4500311	2	AIC4FW_ALA_S_I
LYNX - Florida	L725	—	—	S92Y9D4500329	S92Y5D4500330	2	AIC4FW_USA_S_I
LYNX - Florida	L764	—	—	S92Y7D4500331	S92Y9D4500332	2	AIC4FW_USA_S_I
Austin - CMTA - Texas	L704	5051	5068	L82J7E4500471	L82J2E4500488	18	AIC4FW_AUS_S_I
LYNX - Florida	L785	—	—	S92L6E4500505	S92L8E4500506	2	AIC4FW_USA_S_I
University of Alabama - Alabama	L787	7028	7029	L82J2E4500507	L82J4E4500508	2	AIC4FW_ALA_S_I
MTD - Santa Barbara, California	L730	—	—	S92J8E4500567	S92J1E4500569	3	AIC4FW_USA_S_I

**NOTE**

* Please contact your customer support manager to get the program or an up-to-date revision of it.

- 1.15. In the battery compartment, set the battery disconnect switch to the position (**ON**).
- 1.16. Set the master control switch to position (**ON**).
- 1.17. Insert the USB key containing the unzipped software (at root level) into the USB port of the AIC4 computer module.
- 1.18. Reset the AIC4 computer module by inserting a paper clip into the hole next to the power LED.
- 1.19. All the LEDs should start flashing at the same time (except the Wi-Fi LED).
- 1.20. If the vehicle has an AIC display, you might see a request to calibrate the touch screen with your finger.
- 1.21. When the download is completed, the LEDs on the AIC4 computer module will stop flashing and the AIC display will show: **PLEASE REMOVE FLASHCARD**.
- 1.22. Remove the USB key from the AIC4 computer module.
- 1.23. The AIC4 will reset and show the interface on the AIC display.
- 1.24. Execute a power cycle to reboot the Master Control Module (MCM), by setting the master control switch to the **ENG STOP** position (**O**) and set the battery disconnect switch to the **DISABLE** position (**OFF**).
- 1.25. Wait one minute and turn back the battery disconnect switch to the position (**ON**) and the master control switch to the position (**ON**).
- 1.26. The interface on the AIC display will appear and show the proper number of doors.

**NOTE**

Older USB keys have a lower data transfer rate that may cause issues during installation. If installation fails, try using a USB port on the back of the AIC4 computer module. Alternatively, try using a newer USB key from a reliable supplier.

CLOSING THE +RF2 PANEL

- 1.27. Using cable ties PN G5007996, secure the display adapter cable and make sure there is no interference and rubbing when closing the panel.
- 1.28. Raise the panel door.
- 1.29. Lock the panel door latches.
- 1.30. The vehicle may be returned to service.

LEVEL 2



NOTE

This level is applicable if a USB cable with a Mitsumi type connector must be connected to the new AIC4 module.

- 2.1. Connect the USB adapter cable PN 21875266 between the AIC4 module USB connection and the Mitsumi type connector previously removed (see figure 6 & 7).

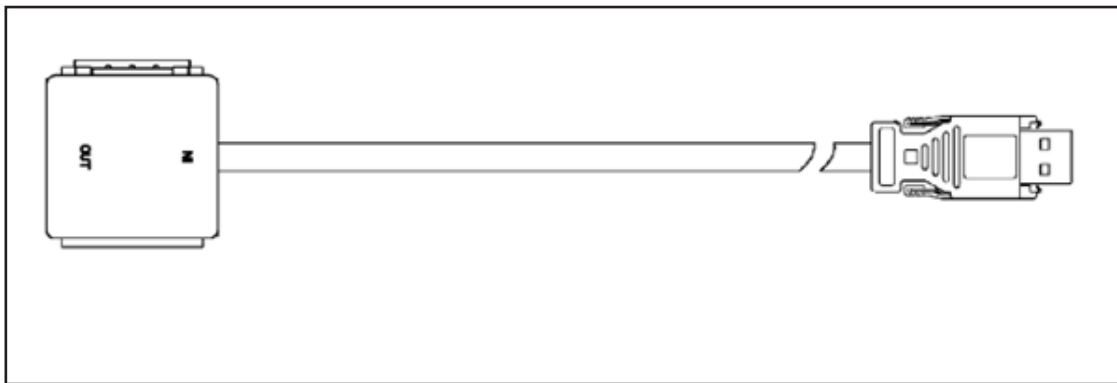


Figure 7 - USB Adapter Cable

- 2.2. Go to " PROGRAMMING THE AIC4 MODULE" Section and continue LEVEL 1 procedure. ❖