

REFERENCE:	Nova Bus Manuals
SECTION:	16: Electrical system
RS N°:	MQR 7621-2926
EFFECTIVE IN PROD.:	LF70
TC RECALL N°:	2025-176
NHTSA RECALL N°:	25V-213

APPLICATION DEADLINES: N/A CLAIM
REFERENCE NUMBER: SR5792

SUBJECT:	Electrical harnesses and connectors
JUSTIFICATION:	The affected vehicles may have been manufactured with a wire harness assembly of inadequate length. This defect results in excessive tension within the cables, which can lead to wires being pulled out of their connector sockets. Additionally, the compromised assembly may allow water to infiltrate the connectors, exacerbating the issue. Over time, these conditions can cause a loss of critical signals necessary for vehicle operation, potentially leading to a loss of motive power. A loss of motive power may increase the risk of a crash.

LEVEL	DESCRIPTION	DIRECT CHARGES		TIME
		LABOUR	MATERIAL	
1	<ul style="list-style-type: none"> Replace electrical harness WHA 47. Inspection of connector BR1X4711B. Inspection of connector BR1X4711C. Inspection of connector BR1X4711D. Inspection of connectors XT5- X6747A and XT5- X6747E 	Nova Bus	Nova Bus	5h
2	<ul style="list-style-type: none"> If damage were found on the connectors, install the corresponding wire kit. If required, install the missing cavity plugs. 	Nova Bus	Nova Bus	1h per wire kit to replace

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.
	Yes	–	

REVISION HISTORY

REV.	DATE	CHANGE DESCRIPTION	WRITTEN BY
NR	2026JA30	Initial release	André Pelletier

MATERIAL REQUIRED PER VEHICLE

QTY	PART N°	REV.	DESCRIPTION
LEVEL 1			
1	N63047134	A	WHA 47 - Wire harness
75	N68156	B	Cable ties
14	N86352-08	-	CAVITY PLUG TIMER 1.5K (N78042) (for BR1X4711B, BR1X4711D, XT5-X6747A, and XT5-X6747E)
4	N86352-04	-	CAVITY PLUG TIMER 2.8 (N77303) (for BR1X4711C)
LEVEL 2			
1	N632001498	-	Wire Kit - BR1X4711B
1	N632001464	-	Wire Kit - BR1X4711C
1	N632001465	-	Wire Kit - BR1X4711D
1	N632001452	A	Wire Kit - XT5-X6747A
1	N632001453	B	Wire Kit - XT5-X6747E
1	N101971	-	Mounting clip (for BR1X4711B)
2	N101977	-	Mounting clip (for BR1X4711C and BR1X4711D)

Materials will be available within 99 days once your order has been placed.

To order, please contact novabus.parts@volvo.com

Or by phone for CANADA 1-800-771-6682, for USA 1-877-999-8808

Specify document number, quantity of parts required and shipping address.

IMPORTANT: CERTAIN ORDERS MAY NOT INCLUDE ALL UNITS

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
Milwaukee Wisconsin - MCTS	LE17					

**WARNING**

FOLLOW YOUR INTERNAL SAFETY PROCEDURES.

PROCEDURE

- 1.1. Park the vehicle on an even surface with the transmission on neutral.
- 1.2. Apply the parking brake and set the master control switch to the **stop** position.

**WARNING**

This vehicle has an electrochemical power storage device composed of four to six high-voltage (HV) battery packs connected in parallel that can cause fatal electric shock or chemical burns, as well as damage to the vehicle.

If a single HV battery pack is connected, the electricity may run through the entire HV system, leading to a risk of electrocution.

It is the customer's responsibility to read the manufacturer's documentation to be aware of the risks associated with the system.

- 1.3. To proceed safely, **inactivate the high-voltage (HV) sources** on the LFSe+ vehicles. For this particular repair, it is allowed to proceed with the **Partial Deactivation** as described in your manual section **16-606: LFSE+ HV DECOMMISSIONING AND PARTIAL DEACTIVATION**.

**WARNING**

This vehicle uses voltages that can cause serious injury or death. If any action is not fully understood, contact qualified personnel or Nova Bus service representatives before proceeding.



NOTE

Retain any parts and hardware removed during the procedure for later reinstallation, unless otherwise instructed.

- 1.4. Remove the 3 roof fairings on the right side of the vehicle.

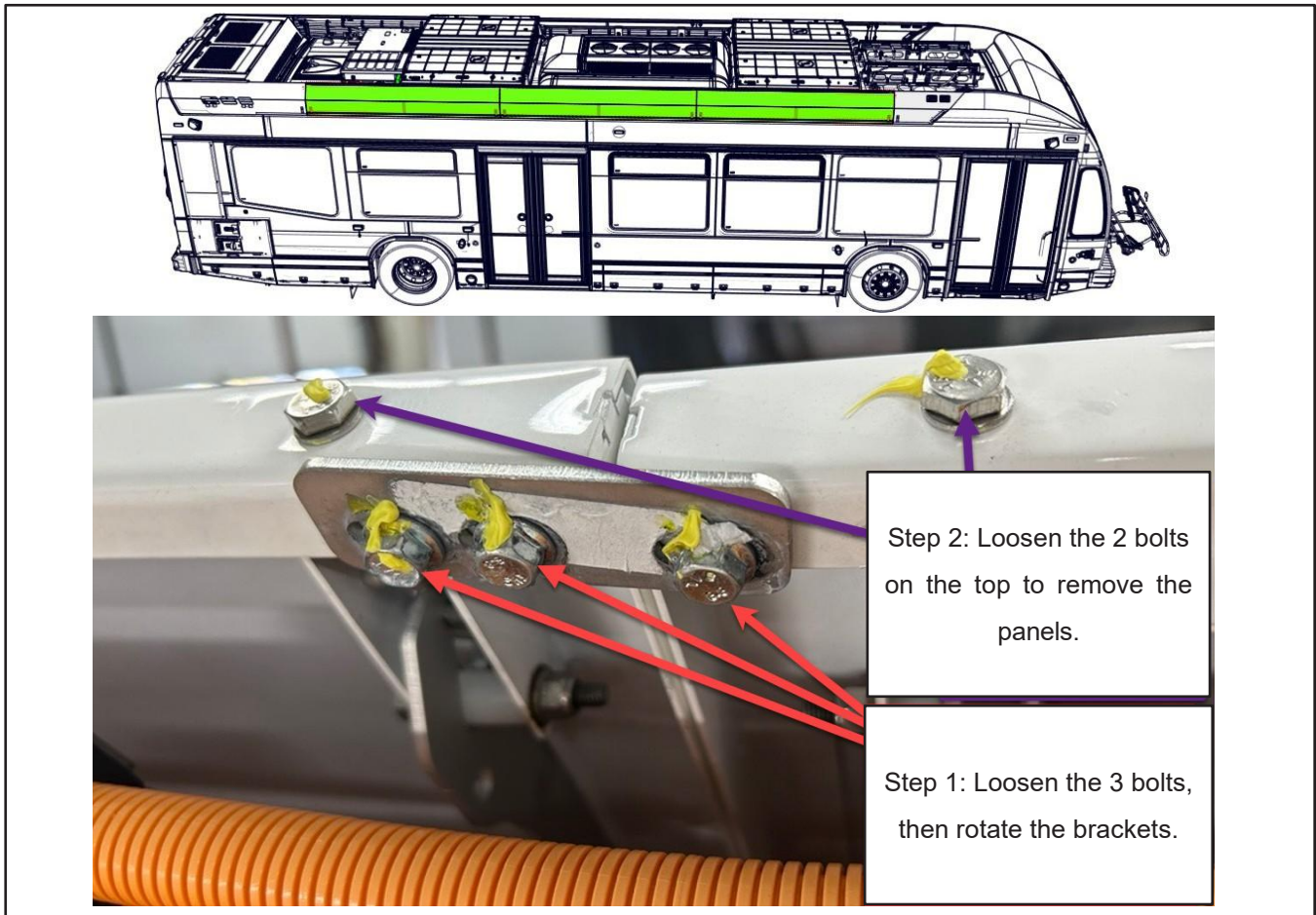


Figure 1 - Remove the Roof Fairings

REMOVE AND REPLACE THE WHA 47

- 1.5. Remove the canopy cover and the BTMS grill cover.

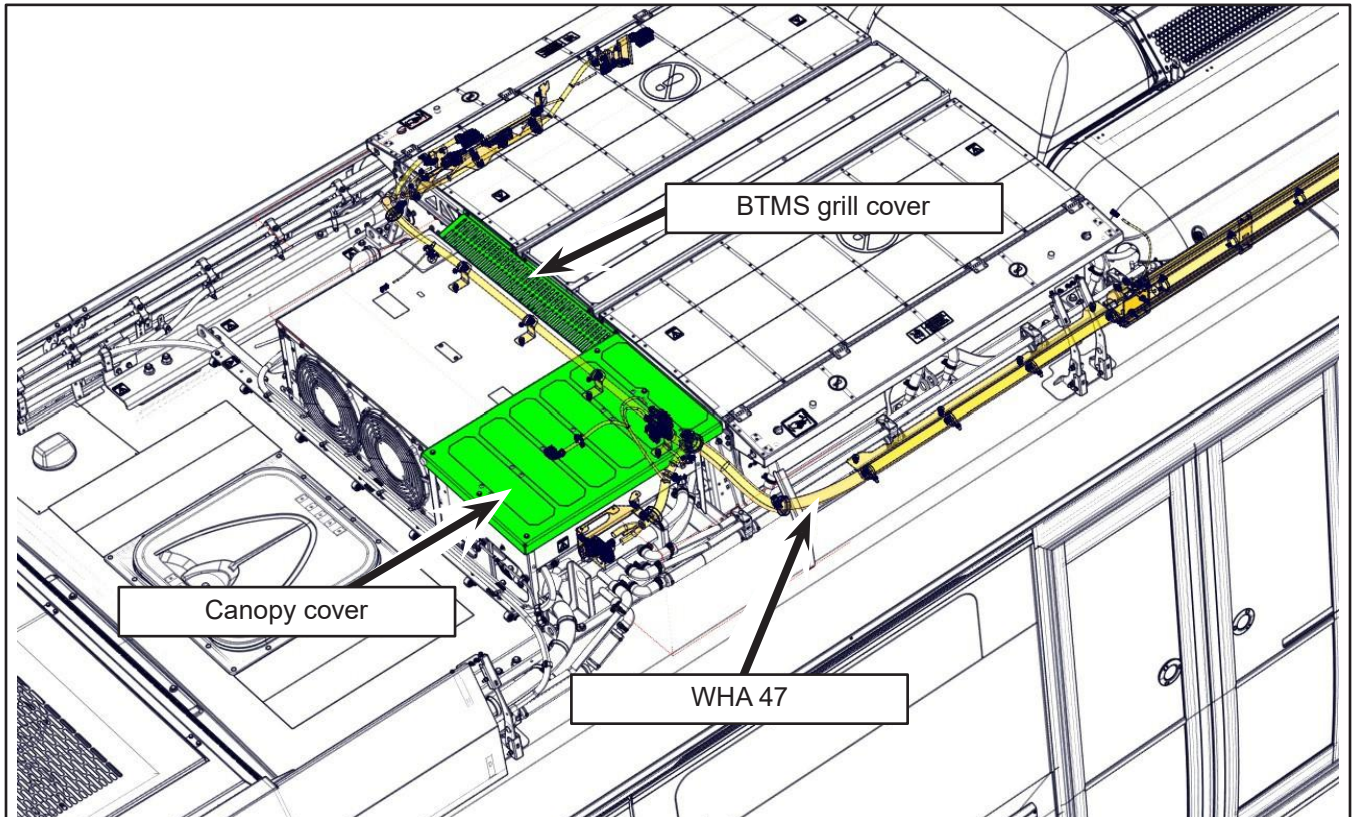


Figure 2 - Remove the Covers

- 1.6. Remove and discard the original WHA 47. To facilitate subsequent installation of the new harness 47, it is recommended to take notes and/or photos when removing the original one in place.

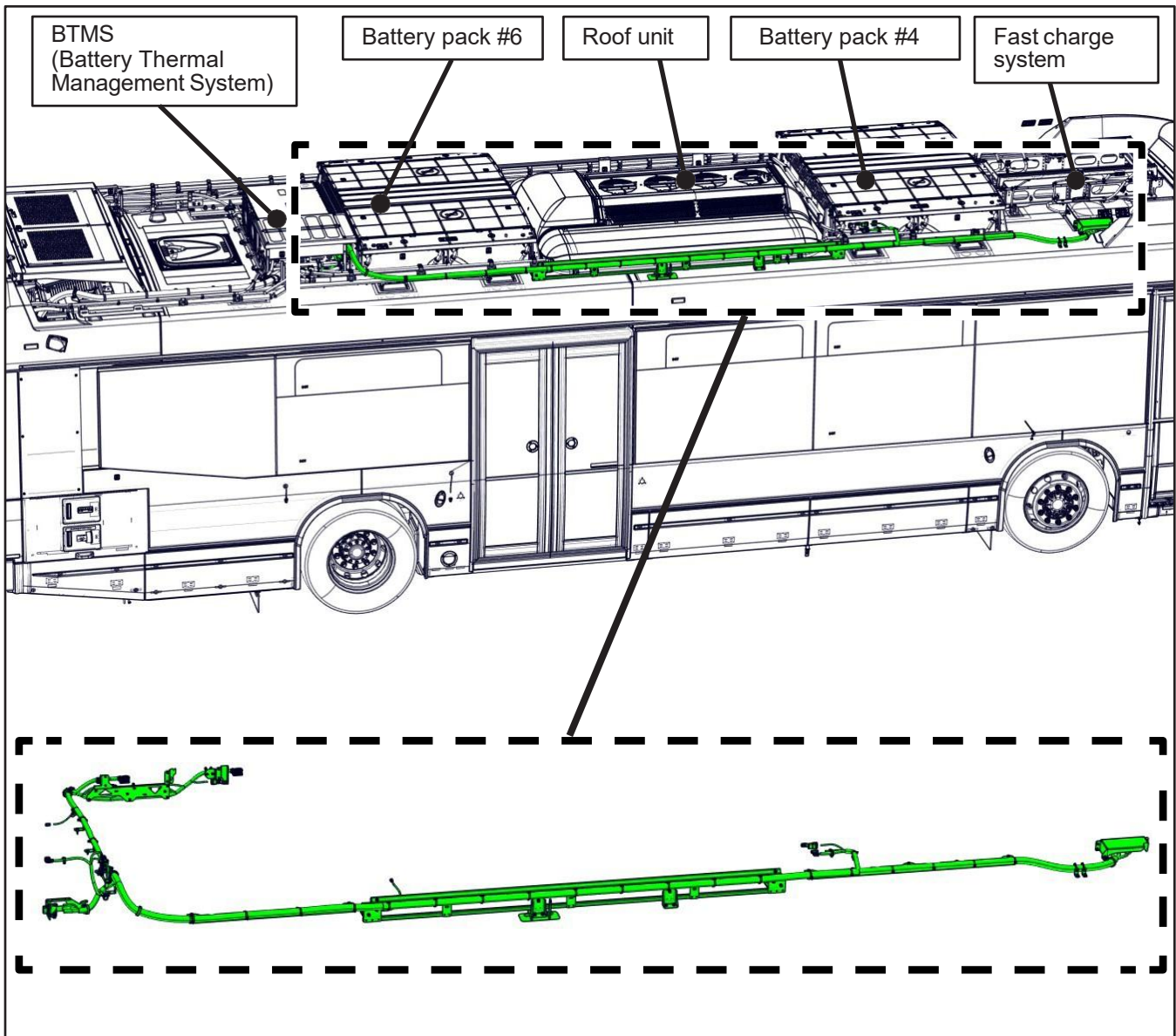


Figure 3 - Remove and Replace the WHA 47

- 1.7. Install the new WHA 47 by aligning the white tapes with the clamps. Secure it exactly as the original was with the retained hardware and new cable ties N68156.

Note: do not connect yet at the fast charge system because it will be required to inspect at the male connectors BR1X4711B, BR1X4711C and BR1X4711D on page 11. Same thing at the BTMS, page 12.

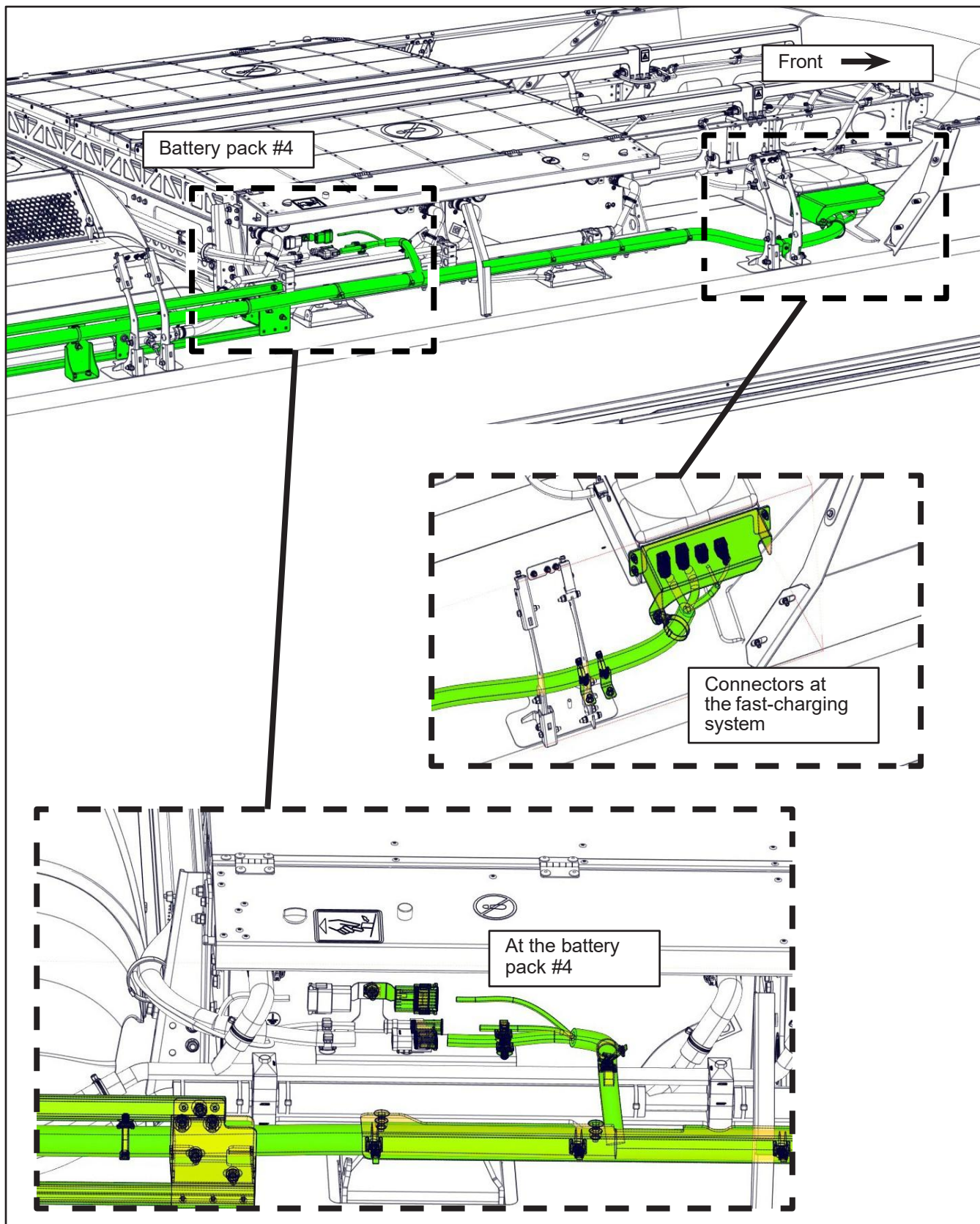


Figure 4 - WHA 47 Routing (Front Right Side)

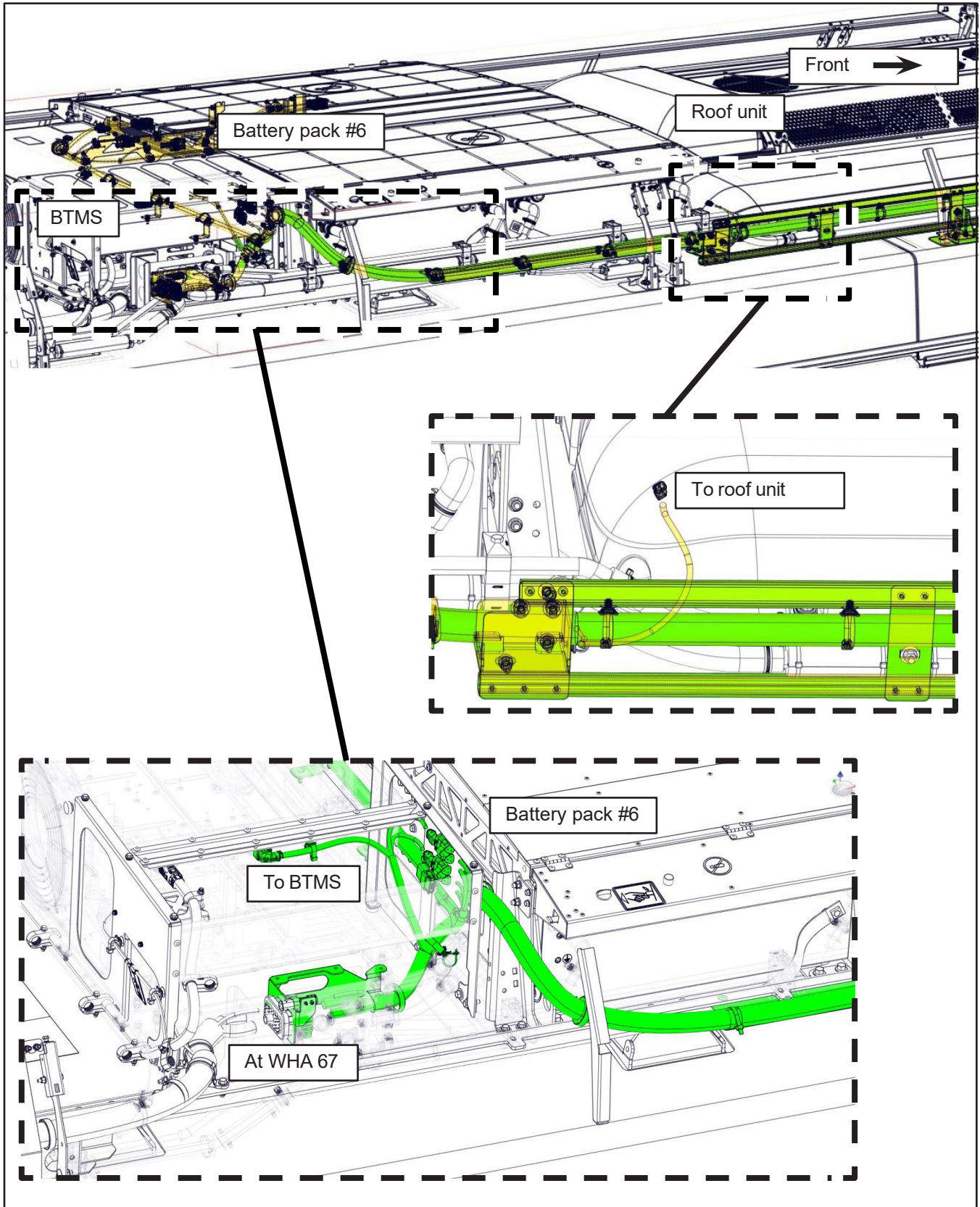


Figure 5 - WHA 47 Routing (Rear Right Side)

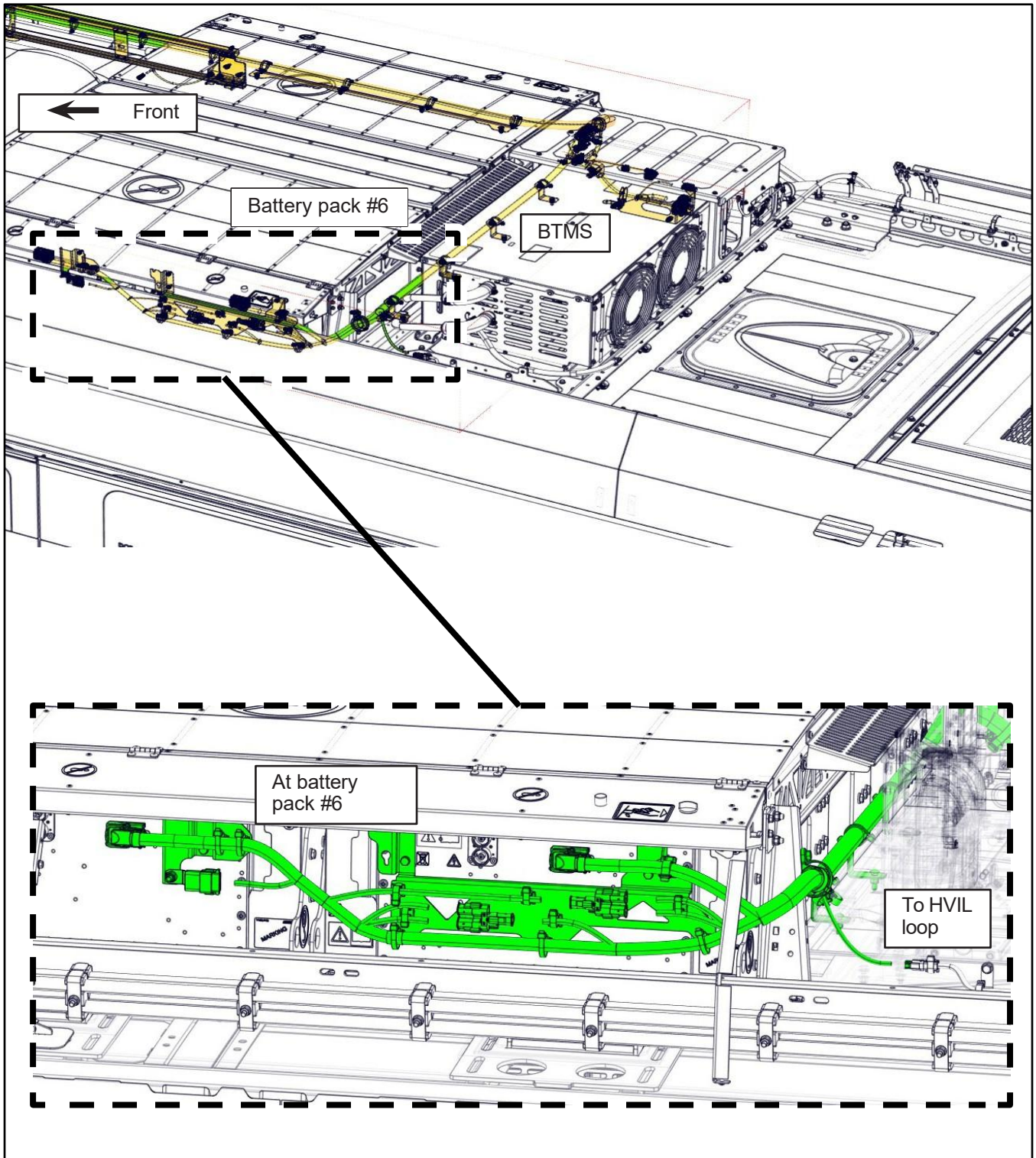


Figure 6 - WHA 47 Routing (Rear Left Side)

INSPECTION OF THE CONNECTORS

- 1.8. Inspection at the male connectors BR1X4711B, BR1X4711C and BR1X4711D. See the next figure and the Figure 4 "Connectors at the fast charging system". If signs of water ingress, corrosion or damage are found, see level 2. If a yellow mounting clip breaks, see the material list level 2.

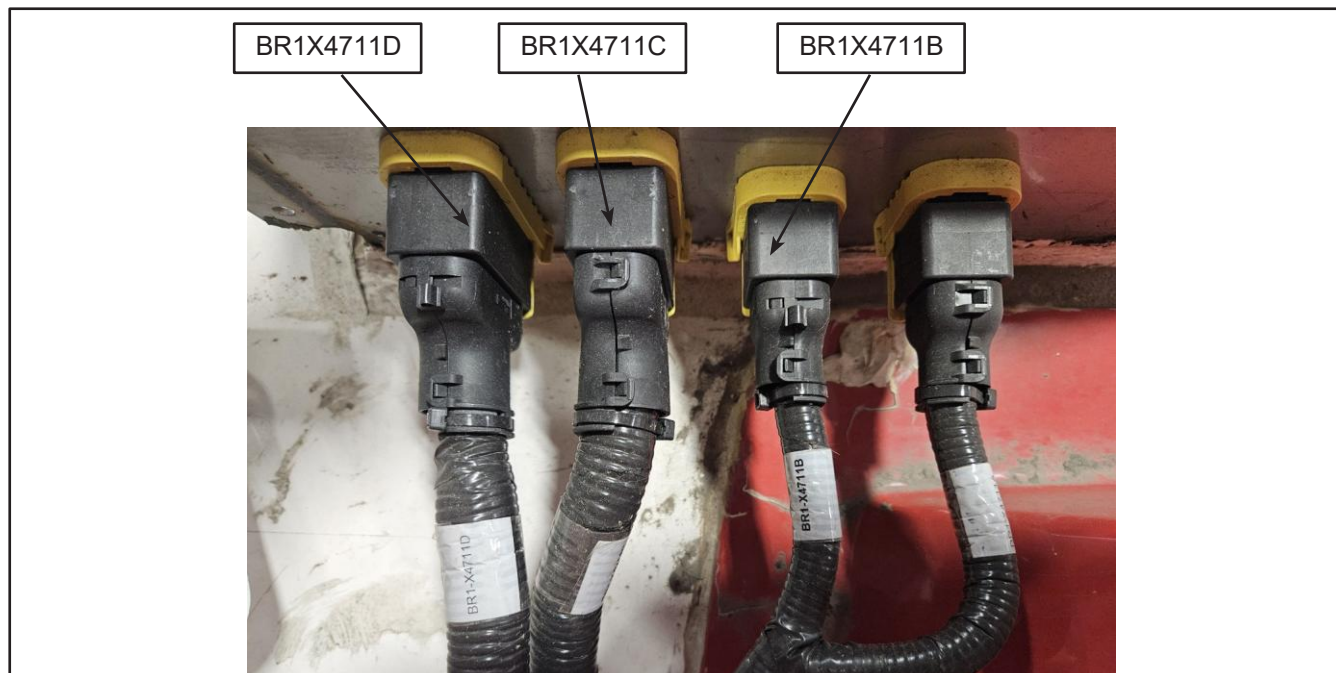


Figure 7 - Inspect the Connectors to the Fast Charging System, View From the Roof

- 1.9. On the same connectors but from the inside of the vehicle, inspect if cavity plugs are missing or damaged. Install the required cavity plugs (already supplied with the Level 1 parts). Insert the cavity plug until it is 1-1.5 mm from the edge of the socket hole. Cavity Plugs N86352-08 for BR1X4711B and BR1X4711D. Use N86352-04 for BR1X4711C.

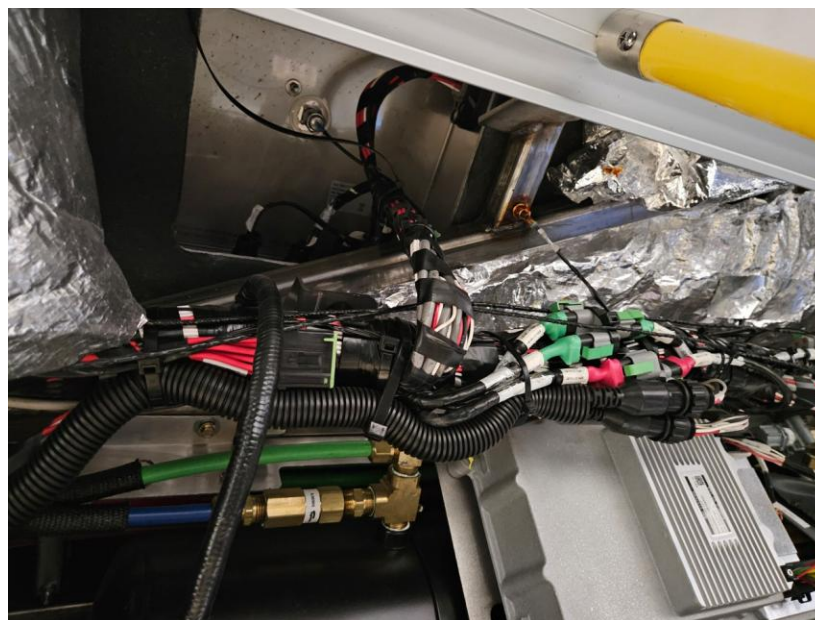


Figure 8 - Inspect the Connectors From the Inside of the Vehicle

- 1.10. At the BTMS, inspect connectors XT5-X6747A and XT5-X6747E going at the WHA67, see the next figure and the Figure 5 "At WHA 67". Remove the back shell, if seals or damage are found or if signs of water ingress, see level 2.
- 1.11. If no discrepancies were found but cavity plugs are missing, install the required cavity plugs (already supplied with the Level 1 parts). Insert the cavity plug until it is 1-1.5 mm from the edge of the socket hole. Cavity plugs, N86352-08 for XT5-X6747A and XT5-X6747E.

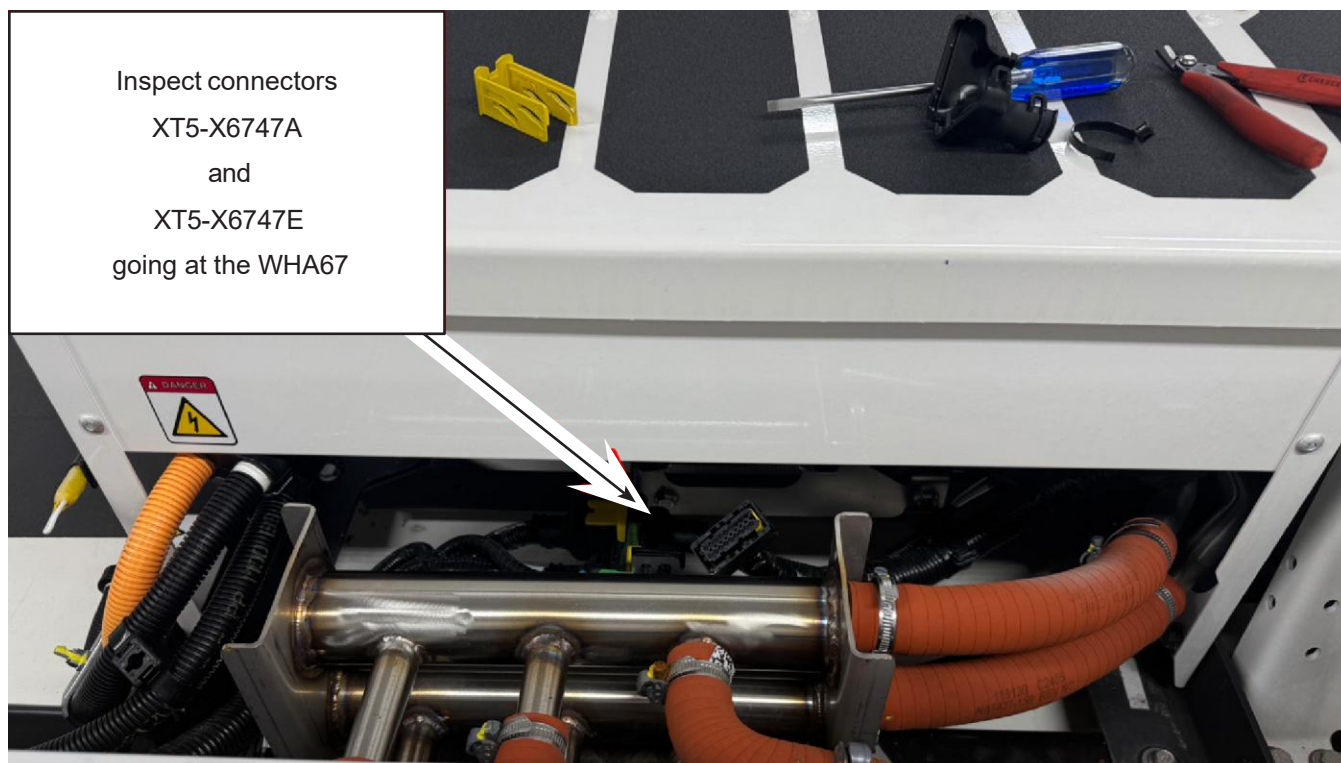


Figure 9 - Inspect connectors XT5-X6747A and XT5-X6747E

- 1.12. Follow the correct commissioning procedures in section 16-606 of your manual to reactivate the high-voltage sources on the LFSE+ in a safe manner.
 - 2.1. Reinstall and secure all the components.
 - 2.2. The vehicle may return to service.
- ❖

LEVEL 2

**NOTE**

Extraction tools may be required:

Tyco extraction tools N8952404 and 687976.

Also Deutch extraction tool 682321.

- 2.3. If 1 or more of the connectors inspected were found with a sign of corrosion, water ingress or if a seal is torn or pulled out, use the Level 2 material list accordingly and replace the connector. Discard the original connector.
- 2.4. When installing the wire kit, it is best practice to stagger the splices / wire crimps to provide a safer and reliable electrical work.
- 2.5. If required, install or replace the missing cavity plugs.

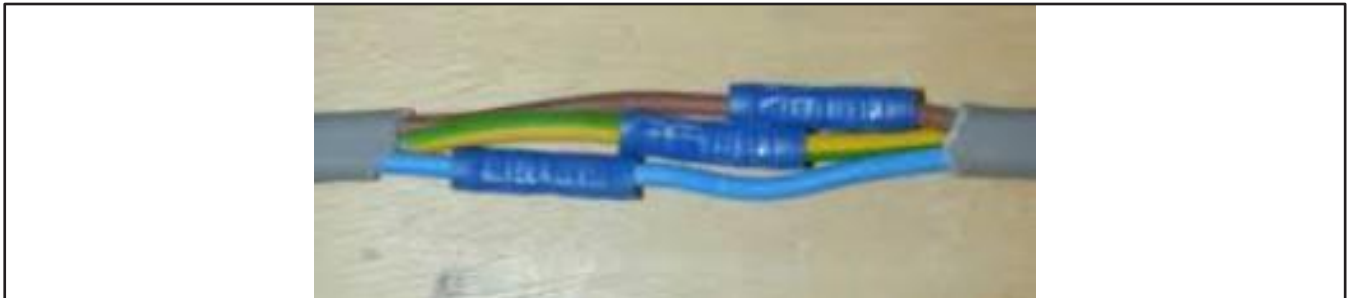


Figure 10 - Example of a Staggered Repair