NOVA BUS

SERVICE BULLETIN BS1905ER1

REFERENCE:	Nova Bus Manuals
SECTION:	16: 24-Volt electrical system
RS Nº:	MQR 7621-113 and 7621-356
EFFECTIVE IN PROD.:	L554-01 (2010SE15)

APPLICATION DEADLINE:
2014JL22

SUBJECT:	Corrosion behind battery disconnect switch and power distribution box (PDB) failure.
JUSTIFICATION:	Corrosion may create poor electrical conductivity. Excessive current passing through the main disconnect switch may lead to the failure of the PDB.

LEVEL	DESCRIPTION	DIRECT CHARGES		TIME
		LABOUR	MATERIAL	
1	Replace the battery disconnect switch and modify the electrical circuit of the PDB.	Nova Bus	Nova Bus	1h45
2	–	–	–	–

MATERIAL

QTY	PART Nº	REV.	DESCRIPTION	REPLACES PART N°
LEVEL 1				
1	N55066-01	–	Disconnect switch	N49987
2	N44885-03	–	Screw M8 X 30	–
2	N43233	–	Bolt M8	–
2	G5900719	–	Terminal	–
1	N41493	–	Connector	–
1	N25889-04	–	Connector lock	–
2	N11681	–	Connector cavity plug	–
1	N64175-60	–	60 Amp fuse assembly	N33410-04
1	N66236	–	Supply cable 4/0 AWG	N57095
1	N66237	–	Bottom nylon block	N48091
1	N66238	–	Top nylon block	N48094
1	N33090-08		Terminal	–
LEVEL 2				
–	–	–	–	–

Materials will be available within 126 days. 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.–
	Yes	—	

REVISION HISTORY

REV.	DATE	CHANGE DESCRIPTION	WRITTEN BY
NR	2012SE21	Initial release	Luc Carignan
R1	2013MR01	Terminal N10273 replaced by G5900719 and connector lock N25892-04 replaced by N25889-04	Luc Carignan

APPROVED BY: Karine Allonce

Digitally signed by Karine Allonce
DN: cn=Karine Allonce, o=Novabus, ou, email=karine.allonce@volvo.com, c=CA
Date: 2013.03.18 11:43:57 -04'00'

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
Arrow Coach Line - Arkansas	L494	—	—	L82U793000397	L82U793000397	1
BC Transit - BCT - British Columbia	L463	9319	9333	L82U093000273	L82U093000287	15
BC Transit - BCT - British Columbia	L481	9334	9353	L82U794000004	L82U094000023	20
BC Transit - BCT - British Columbia	L484	9370	9403	L82U494000090	L82U494000123	34
BC Transit - BCT - British Columbia	L486	9354	9369	L82U294000024	L82U494000039	16
BC Transit - BCT - British Columbia	L487	9404	9433	L82U094000149	L82U794000178	30
Belleville Transit - Ontario	L542	—	—	L82UXA3000088	L82U8A3000090	3
Brampton - Ontario	L501	0917	0921	L82U893000506	L82UX93000510	5
Brampton - Ontario	L501	0922	0926	L82U693000519	L82U893000523	5
Brantford - Ontario	L547	10101	10105	L82X6A3000082	L82X3A3000086	5
Grand River Transit - GRT - Ontario	L464	20901	20913	L82U193000296	L82U493000308	13
Grand River Transit - GRT - Ontario	L560	21001	21009	L82U2A3000246	L82U1A3000254	9
Lethbridge - Alberta	L489	165	169	L82U493000454	L82U193000458	5
Marketing Sales Demo - MSD 1 ISB Hybrid	L548	—	—	L82X5A3000087	L82X5A3000087	1
Niagara Falls - Ontario	L499	2986	2989	L82U093000564	L82U693000567	4
Peterborough - Ontario	L490	—	—	L82UX93000345	L82U593000348	4
Regina - Saskatchewan	L476	625	628	L82U893000313	L82U393000316	4
Regina - Saskatchewan	L561	—	—	L82U8B4000003	L82U5B4000010	8
Regina - Saskatchewan	L561	—	—	L82U4B4000013	L82UXB4000018	6
Saskatoon - Saskatchewan	L551	1005	1007	S92UXA3000178	S92U8A3000180	3
Stratford - Ontario	L493	—	—	L82U2A3000019	L82U2A3000019	1
Strathcona County Transit - Alberta	L523	2010	2010	L82U693000603	L82U693000603	1
Strathcona County Transit - Alberta	L524	3005	3010	L82X593000604	L82X493000609	6
Sudbury - Ontario	L465	791	795	L82U593000317	L82U793000321	5
Sudbury - Ontario	L552	801	808	L82U3A3000238	L82U0A3000245	8
Thunder Bay - Ontario	L488	—	—	L82U193000332	L82U593000334	3
Timmins - Ontario	L475	—	—	L82U493000311	L82U693000312	2
Timmins - Ontario	L550	—	—	L82U8A3000171	L82UXA3000172	2
University of Alabama - Alabama	L479	479-1	479-1	L82U394000002	L82U394000002	1
University of Alabama - Alabama	L480	480-1	480-1	L82U594000003	L82U594000003	1
Walt Disney World - Florida	L535	1204	1213	L82UXA4000003	L82U0A4000012	10
Woodstock - Ontario	L460	—	—	L82U693000309	L82U693000309	1
Woodstock - Ontario	L492	—	—	L82U4A3000040	L82U6A3000041	2

WARNING

Follow your internal safety procedures.

PROCEDURE

1.1. Open the battery compartment access door and the engine compartment side access door. See Figure 1.

Figure 1 - Access Doors to Open

1.2. Unlock the battery tray and swivel it outwards.

1.3. Ensure that the vehicle's power supply has been deactivated; disconnect the battery terminals.

1.4. Remove and discard the upper and lower nylon blocks, located on the battery compartment bulkhead, to the right of the batteries (see Figure 2). Retain the hardware.

1.5. Remove and discard the supply cable connected to the first terminal of the distribution box and the disconnect switch. See Figure 2.

1.6. Remove and discard the battery disconnect switch. See Figure 2.

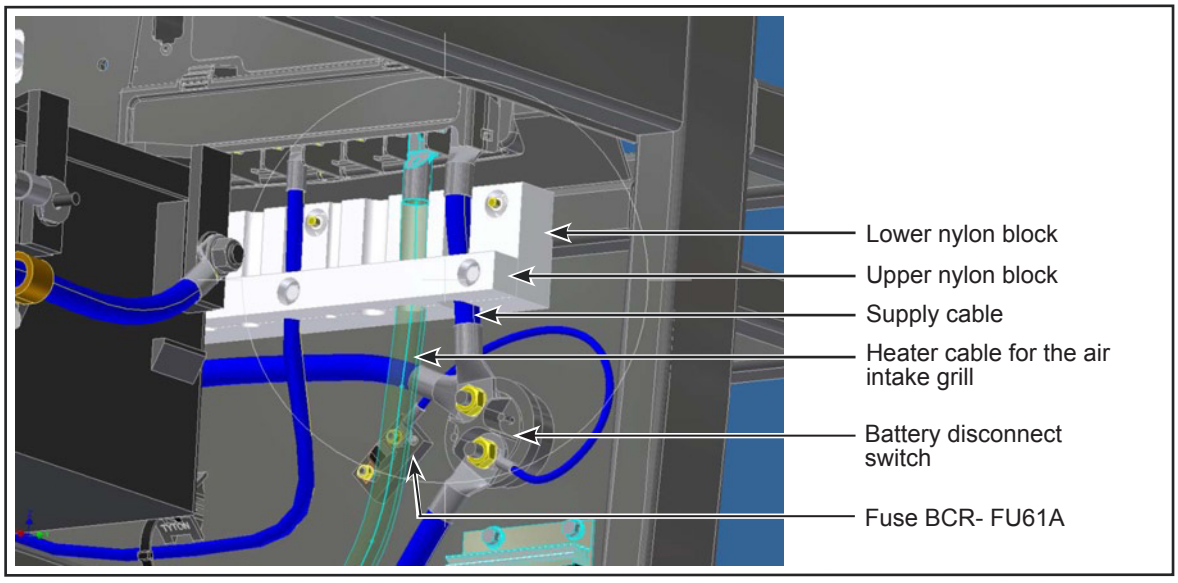

Figure 2 - Existing Connections for the Power Distribution Box

1.7. Once the switch has been removed, it is necessary to enlarge the hole on which it was installed. The most appropriate tool to accomplish this task is a knock-out punch tool. See Figure 3.

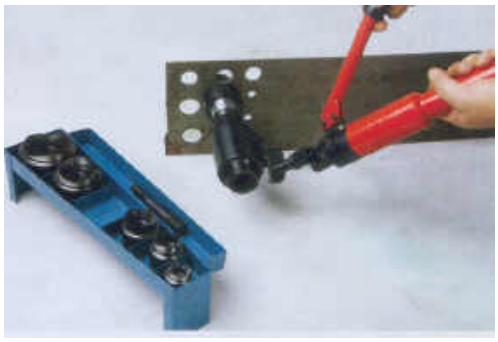

Figure 3 - Typical Knock-Out Punch Tool

1.8. The size of the existing hole is 0.79 in. (20 mm). This must be enlarged to 2.8 in. (71 mm) See Figure 4.

1.9. Drill two holes at 30 degrees from the horizontal axis of the 71 mm hole, using the new battery cut-off switch (N55066-01) as a drilling template. See Figure 4.

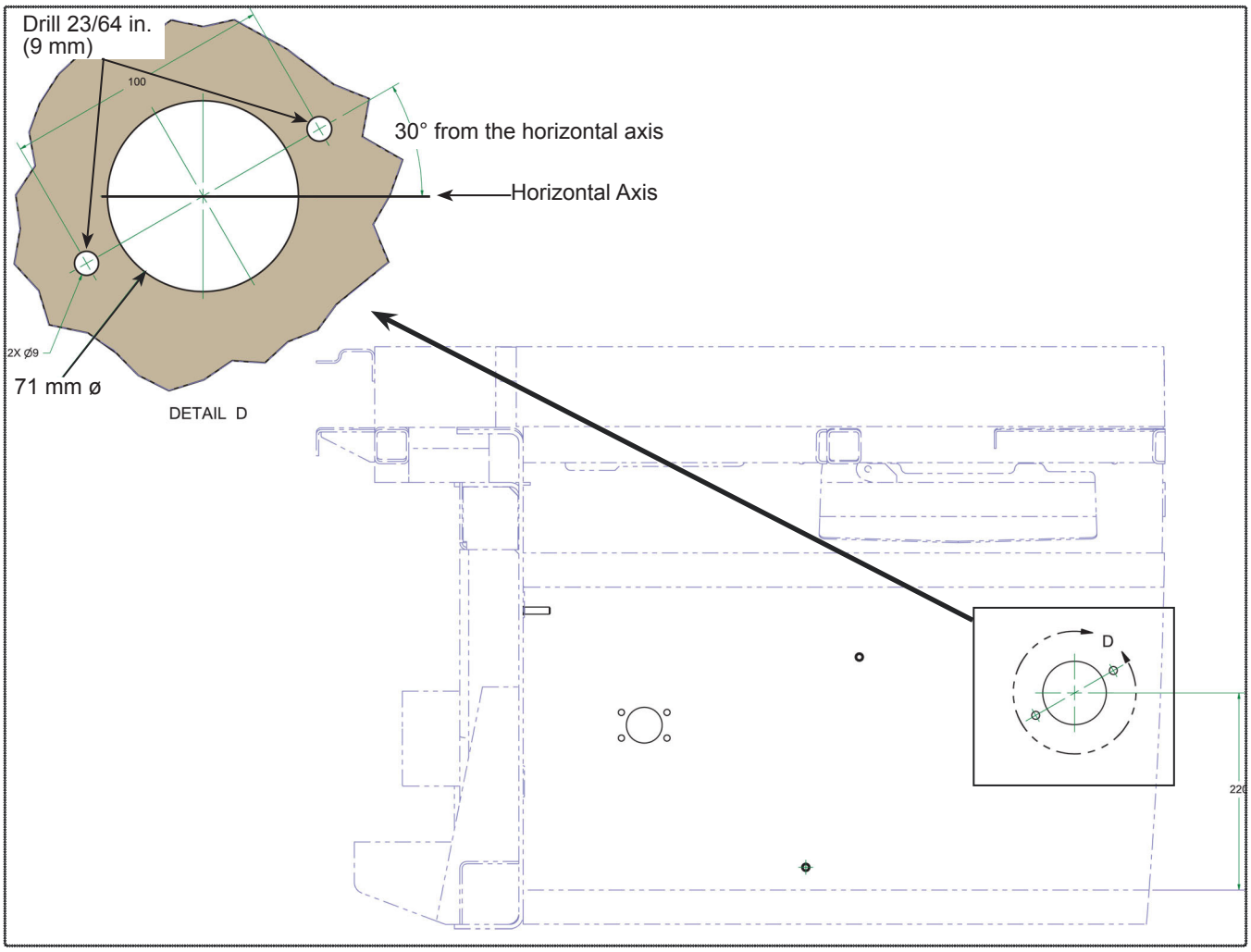

Figure 4 - Dimensions for the Modified Hole and Locations of the Attachment Holes

1.10. Place the new battery cut-off switch N55066-01 in the enlarged hole. Attach using screws N44885-03 and bolts N43233. See Figure 5.

1.11. Install a terminal G5900719 on wire 61-871, and another terminal G5900719 on wire 61-872. See Figures 5 and 6.

1.12. On connector N41493 (see Figure 5):

- Insert wire 61-871 in pin # 4
- Insert wire 61-872 on pin # 1
- Install lock N25889-04
- Install plugs N11681

1.13. Affix connector N41493 to the connector of the battery disconnect switch.

1.14. Install the fuse assembly N64175-60 at position A1 of the battery disconnect switch. See Figure 5.

1.15. Cut the existing terminal on cable C183 and install the new terminal N33090-08.

1.16. Connect cable 61-C183 to the fuse assembly N64175-60. See Figure 5.

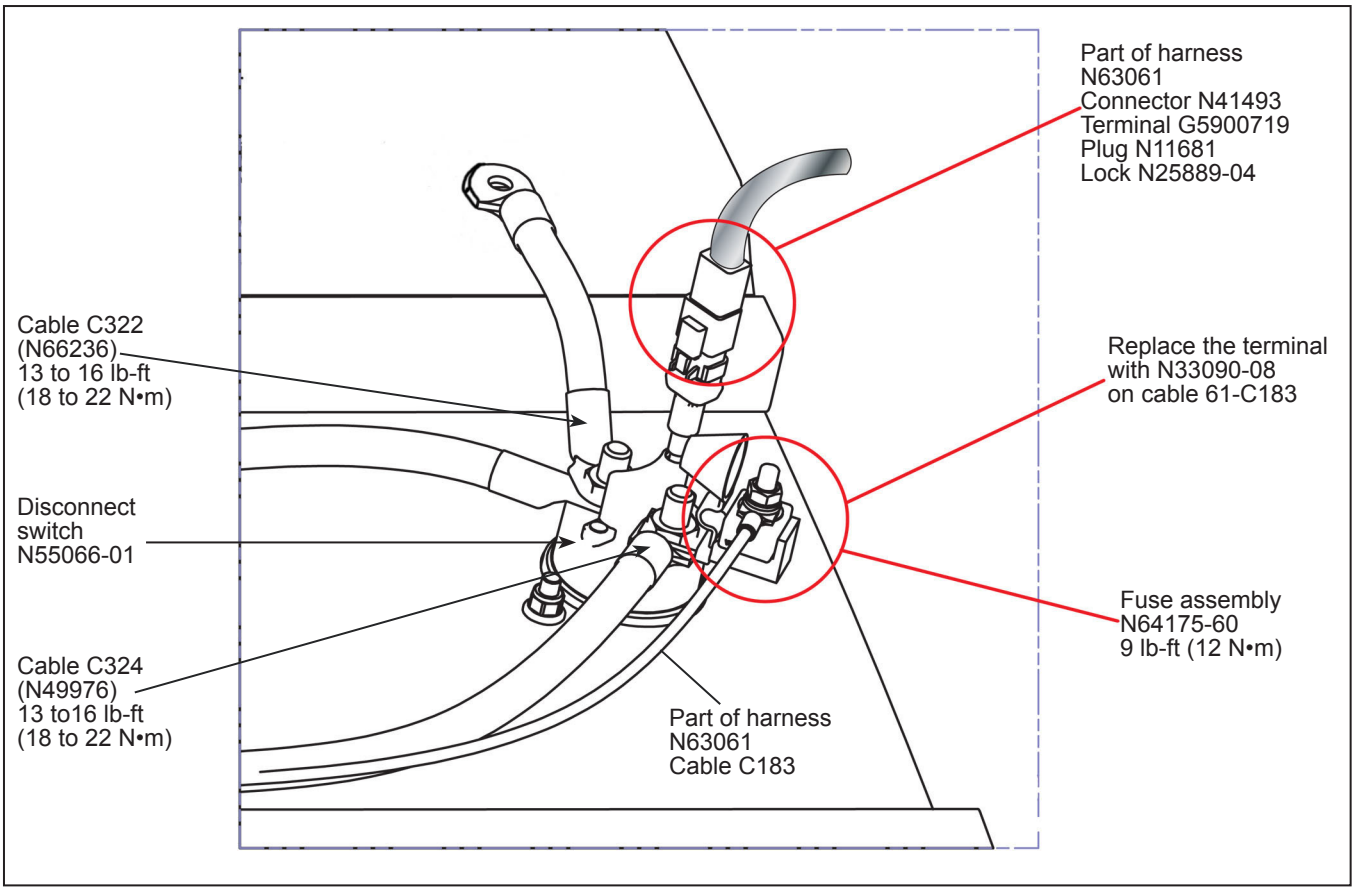

Figure 5 - Modified Installation

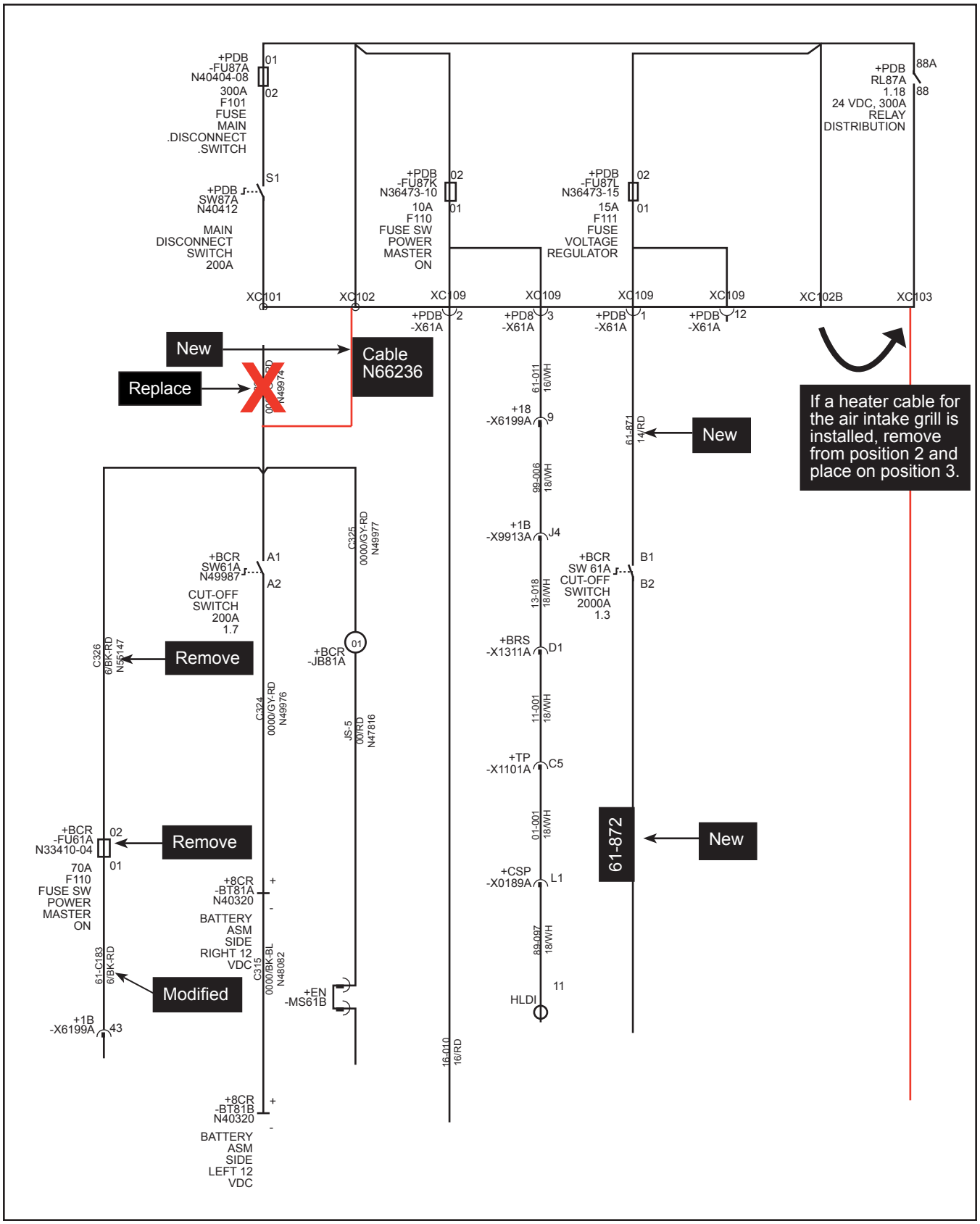

Figure 6 - Vehicle's Modified Wiring Diagram

1.17. Install the new lower nylon block N66237 using the retained hardware.

1.18. Connect the new cable N66236 to the battery disconnect switch and to the second terminal from the right of the power distribution box. Apply a torque as indicated in Figure 7.

NOTE: If a heater cable for the air intake grill is installed, then disconnect the heater cable that is connected to terminal # 2 from the right of the power distribution box, and reconnect it to terminal # 3. Apply a torque as indicated in Figure 7.

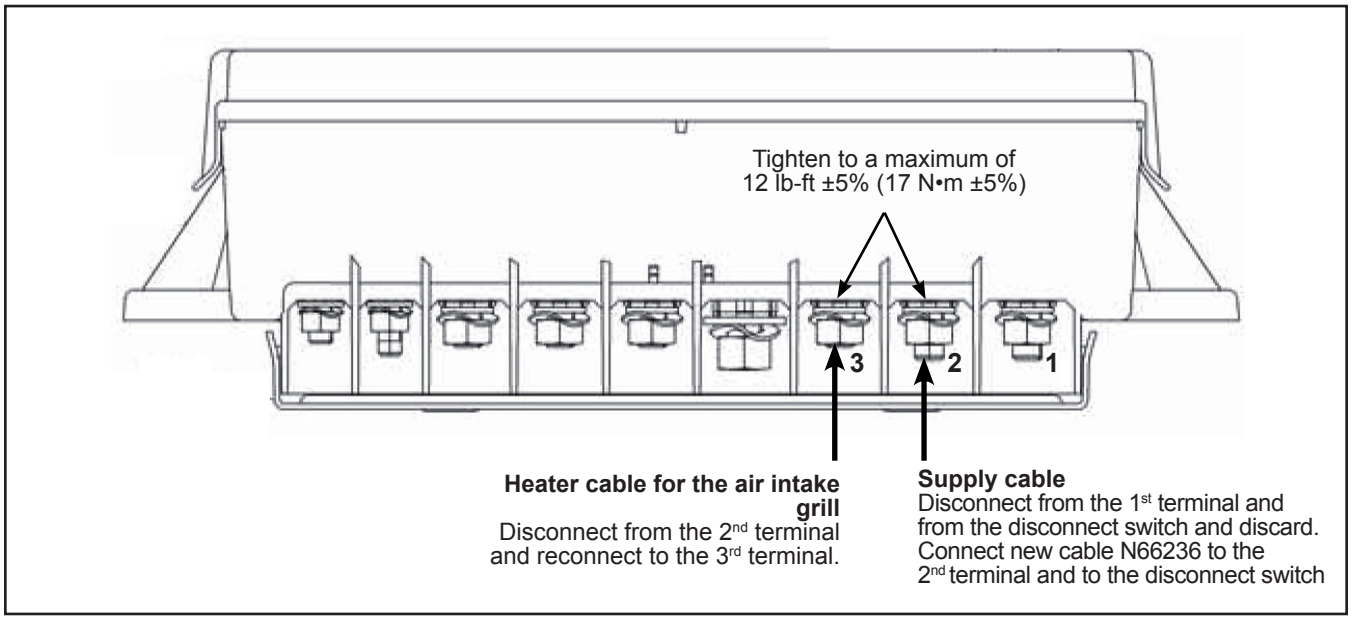

Figure 7 - Tightening Torque of the Power Distribution Box Terminals

1.19. Remove and discard the supply cable from fuse BCR-FU61A (red 6-gauge wire)

1.20. Remove the fuse assembly BCR-FU61A. See Figure 2.

1.21. Return the battery tray to its locked position.

1.22. Close all access doors.❖