

REFERENCE:	Nova Bus Manuals
SECTION:	16 24-volt Electrical system
RS N°:	7621-356
EFFECTIVE IN PROD.:	L554-001 (2010SE15)

APPLICATION DEADLINE:
2014AL26

SUBJECT:	Power distribution box (PDB) failure.
JUSTIFICATION:	Excessive current passes through the main disconnect switch, which could lead to the failure of the PDB.

LEVEL	DESCRIPTION	DIRECT CHARGES		TIME
		LABOUR	MATERIAL	
1	Modify the electrical circuit of the power distribution box (PDB).	Nova Bus	Nova Bus	1h45
2	—	—	—	—

MATERIAL

QTY	PART N°	REV.	DESCRIPTION	REPLACES PART N°
LEVEL 1				
1	N33090-08	—	Ring terminal	—
2	N43233	—	Nut	—
2	N44885-03	—	Screw	—
1	N55066-01	—	Disconnect switch	—
1	N64175-60	—	60'amps fuse assembly	N33410-04
1	N66236	—	Cable C526	—
1	N/A	—	Wire kit	—
LEVEL 2				
—	—	—	—	—

Materials will be available within 35 days. To order, please contact your Nova Bus service representative.

DISPOSAL OF PARTS

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

REVISION HISTORY

REV.	DATE	CHANGE DESCRIPTION	WRITTEN BY
NR	2012SE14	Initial release	Chantal Rodrigue
R1	2013FE20	Procedure change to include the installation of a new disconnect switch Order L573 removed because new procedure is not applicable to option installed on this order	Luc Carignan

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
Demo - Articulated Bus	L433	—	—	S92UX93000029	S92UX93000029	1
Demo - Articulated Bus APTA US	L359	—	—	S92U583000289	S92U583000289	1
Demo - Plateforme 2010 (ATQ)	L456	—	—	L82U893000019	L82U893000019	1
Demo - Proto Platform 2010	L271	—	—	L82U283000001	L82U483000002	2
Greater Toronto Airports Authority - GTAA - Ontario	L432	432-1	432-1	L82U793000061	L82U793000061	1
Greater Toronto Airports Authority - GTAA - Ontario	L477	L477-1	L477-1	L82U194000001	L82U194000001	1
Moncton (Codiac) - New Brunswick	L358	358-1	358-1	L82U093000001	L82U093000001	1
Moncton (Codiac) - New Brunswick	L361	361-1	361-1	L82U293000002	L82U293000002	1
Regina - Saskatchewan	L356	629	629	L82U883000150	L82U883000150	1
Regina - Saskatchewan	L360	630	630	L82U283000290	L82U283000290	1
University of Colorado - Colorado	L427	—	—	S92U693000027	S92U693000027	1
University of Colorado - Colorado	L428	—	—	S92U893000028	S92U893000028	1

**WARNING**

Always follow your internal safety procedures.

PROCEDURE

- 1.1. Open the street-side lateral engine access door and turn off the battery disconnect switch, located on the power distribution box (PDB). See Figure 1.

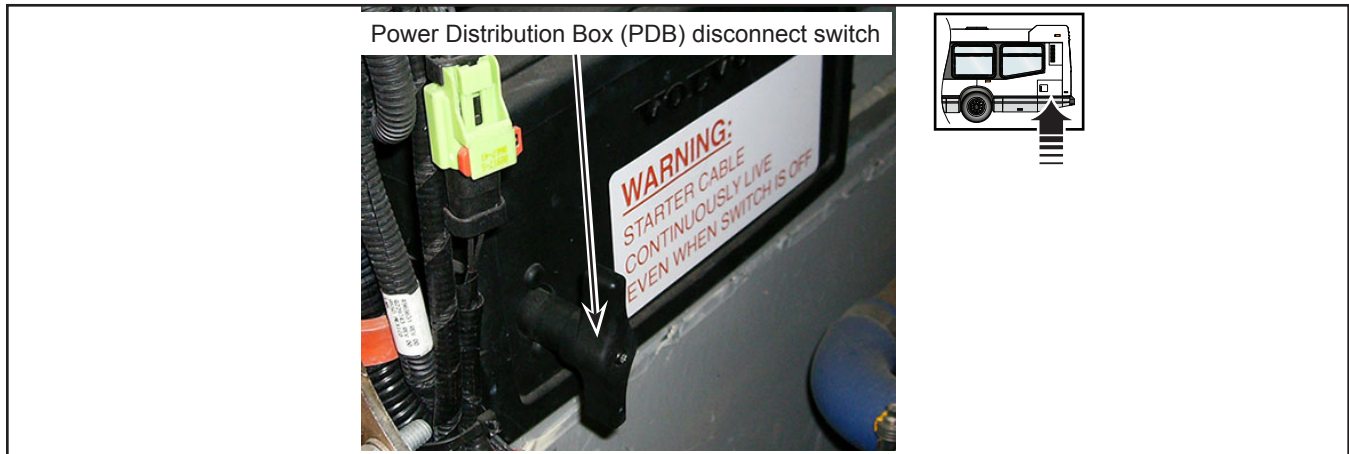


Figure 1 - Power Distribution Box and Battery Disconnect Switch

- 1.2. Open the battery compartment access door and disconnect the negative and positive cables. Pivot the battery tray.
- 1.3. Remove the top blocks located on the battery compartment wall to the right of the batteries (see Figure 2). Retain the hardware.
- 1.4. Disconnect the power cables from the first and second stud on the power distribution box. See Figure 2.
- 1.5. Remove and discard the 70 amp fuse, the fuse block and the power cable 61-C209. Cut cable 61-C183 terminal after disconnection. See Figure 2.

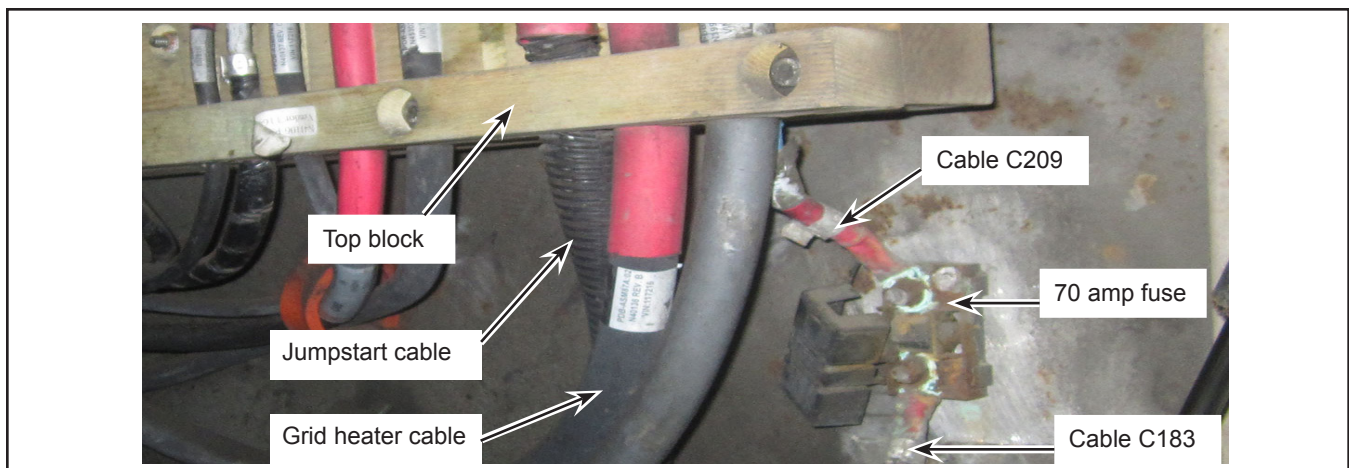


Figure 2 - Existing PDB Connections

- 1.6. Punch a 2.8 in. (71mm) hole between the power distribution box and the voltage regulator. Use of a knock out punch is recommended to punch the hole. See Figure 3 for the center position of the hole.
- 1.7. Drill two holes at 30 degrees from the horizontal axis of the 2.8 in. (71 mm) hole, using the new battery cut-off switch (N55066-01) as a drilling template. See Figure 3.



NOTE

Position of the new disconnect switch must be accurate with the dimension described in Figure 3. Non-respect of the switch position may cause a problem with the installation of cable N66236 between the disconnect switch and the power distribution box.

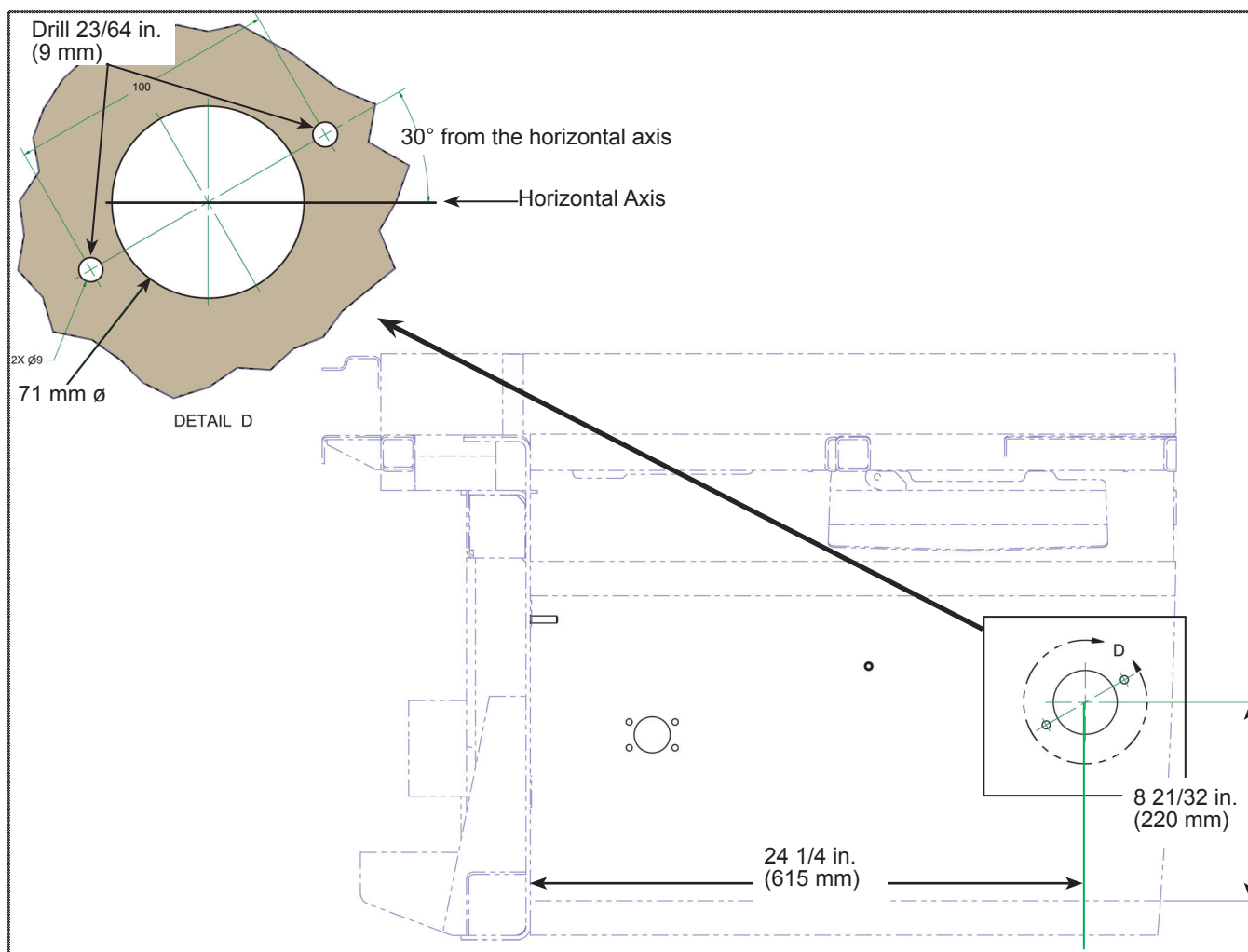


Figure 3 - Dimensions for the New Hole and Locations of the Attachment Holes

- 1.8. Install the disconnect switch N55066-01 in the punched hole using the screws N44885-03 and the nuts N43233. See Figure 4.
- 1.9. Connect the grid heater power cable to the disconnect switch.
- 1.10. Connect cable N66236 (cable C526) on the battery disconnect switch and the second terminal stud (XC102B) of the power distribution box. Apply torque as indicated in Figure 4.
- 1.11. Install the 60'amp fuse assembly N64175-60 at position A1 on the battery disconnect switch. See Figure 4.
- 1.12. Connect the wire kit on the disconnect switch. See Figure 4.
- 1.13. Connect wire 61-871 in position 1 of the connector PDB-X61A1 (power distribution connector). Fix and secure the wire to the power cable using tie wraps.
- 1.14. Disconnect connector BCR-X61A from the voltage regulator.
- 1.15. Remove the wire connected in position 2 and tapeback using heat shrink tubing.
- 1.16. Connect wire 61-872 (wire kit) in position 2 of connector BCR-X61A. Connect the connector to the voltage regulator. Secure the wire routing using tie wrap.
- 1.17. Install the new terminal N33090-08 on cable 61-C183. See Figure 4.
- 1.18. Connect cable 61-C183 to the fuse assembly N64175-60. See Figure 4.

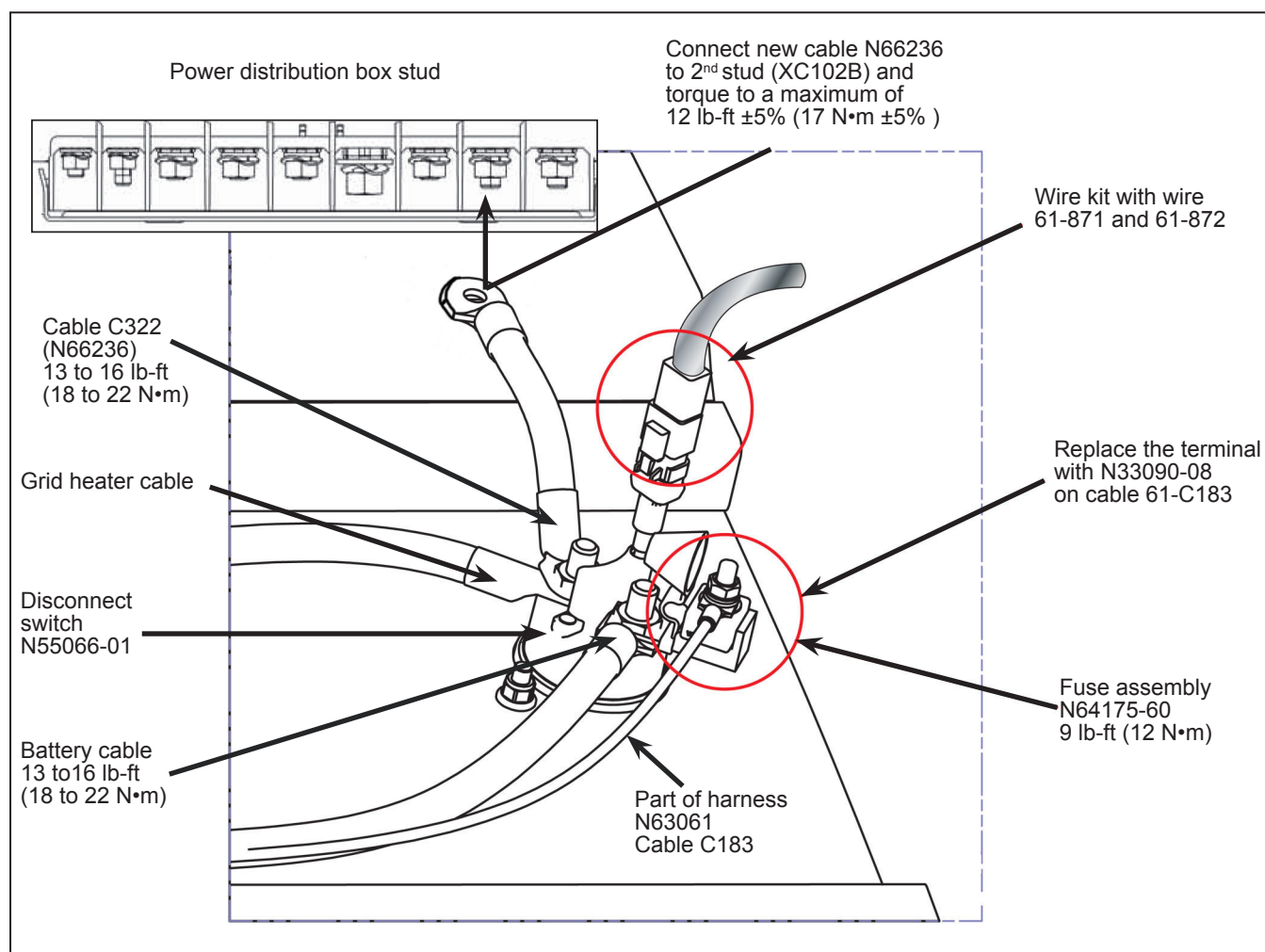


Figure 4 - Modified Installation

- 1.19. Install the retained top block using the retained hardware.
- 1.20. Turn the battery disconnect switch on the back of the PDB to the **ON** position and remove the handle.
- 1.21. Fix the power cables connected to the disconnect switch in such a way as to secure them.
- 1.22. Pivot the battery tray.
- 1.23. Connect the positive and negative cable to the battery. Apply torque on the battery terminal as specified in section **16-102: BATTERY 8D REAR MOUNTED** of the Nova Bus maintenance manual.
- 1.24. Turn the battery disconnect switch N55066-01 to the **ON** position.
- 1.25. Close the battery access door and street-side lateral engine access door.❖