

REFERENCE:	Nova Bus Manuals
SECTION:	14: Auxiliary heater
RS N°:	PIP100

APPLICATION DEADLINE:N/A

SUBJECT:	Auxiliary heater
JUSTIFICATION:	Auxiliary heater Thermo 350 is discontinued. The Thermo Plus unit will replace the current unit only if the whole unit needs to be replaced. There is no need to retrofit any buses with the new Thermo Plus units. Replacement parts are available for the current Thermo/Thermo-S units already installed. Please refer to the spare part list for those heaters. If required, contact your local customer support manager for more information.

LEVEL	DESCRIPTION	DIRECT CHARGES		TIME
		LABOUR	MATERIAL	
1	This procedure will outline the necessary changes and parts required to install a Thermo Plus heater.	Client	Client	2h
2	-	-	-	-

MATERIAL

QTY	PART N°	REV.	DESCRIPTION	REPLACES PART N°
LEVEL 1				
1	N97496	A	HEATER THERMO PLUS 35 kW	N76681
1	N8910899	-	CABLE HARNESS THERMO PLUS (with integrated relay)	-
914 mm	N28083-07	-	SLIT CONVOLUTED CONDUIT	-
3	N57807	C	MOUNT FIR TREE CABLE TIE	-
2	N37749	B	DUAL CLAMP TIE	-
1	N56836	A	SPACER DUAL SWIVEL SADDLE	-
1	N44881-02	B	SCREW M6X25 H YZ TRIV 96H 8.8	-
1	N44887	B	NUT LOCKNYL M6 YZ TRIV 96H C8	-
4	G5007996	-	CABLE TIE	-
LEVEL 1 SHOP SUPPLIES				
1500 mm	N74787	A	TAPE ELEC CLOTH 19 X 0.27 THK (1 roll for 16 buses)	-
LEVEL 2				
-	-	-	-	-

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	2020SE28	Initial release	André Pelletier
NR	2020OC19	Page 1, details added to the justification.	André Pelletier

APPROVED BY:

PAGE 1 OF 6

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
Ames Transportation Agency - Iowa	L904	6101	6104	S92J1G9775221	S92J7G9775224	4
CT Transit - Connecticut	L814	1462	1473	S92LXE4500717	S92L4E4500728	12
CT Transit - Connecticut	L815	1426	1429	S92L0E4500709	S92L0E4500712	4
Duke University - North Carolina	LA39	—	—	S92LXH9775995	S92LXH9775995	1
Mississauga Ontario	LA65	1770	1799	S92J8H9776254	S92J2H9776315	30
Niagara Falls Ontario - Metrolinx	LA98	1809	1810	S92J7J3751003	S92J9J3751004	2
St. Catharines Ontario - Metrolinx	L898	1560	1560	S92J4F3001663	S92J4F3001663	1
St. Catharines Ontario - Metrolinx	LB06	1860	1862	S92J1J3751000	S92J5J3751002	3
York Regional Transit - Ontario	L964	1770	1774	S92J6G3750420	S92J3G3750424	5

**WARNING**

FOLLOW YOUR INTERNAL SAFETY PROCEDURES.

**NOTE**

The Thermo 350 heaters N76681 are discontinued. If a full heater retrofits is required, the new Thermo Plus 350 heater N97496 requires to add a harness with an integrated relay as per the procedure below.

PROCEDURE

- 1.1. Park the vehicle on an even surface the with transmission in neutral.
- 1.2. Apply the parking brake and set the master control switch to the **stop** position.
- 1.3. Set the battery disconnect switch in the battery compartment to the **off** position.
- 1.4. Remove the auxiliary heater and install the new one. More information in your maintenance manual section **14: Auxiliary heater**.

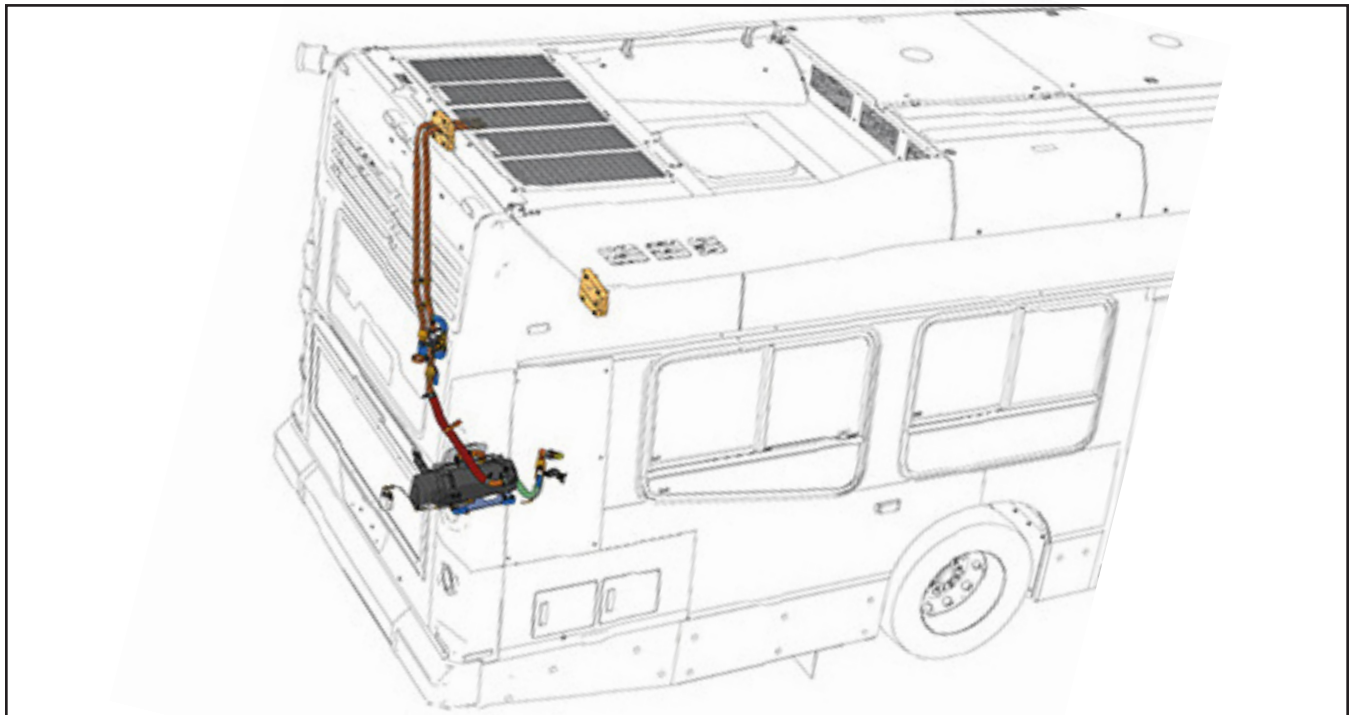


Figure 1 - Auxiliary Heater Location

**NOTE**

The new Thermo Plus unit requires the new harness from the material list to be connected to the existing NovaBus harness. Two holes will be required in the cradle.

- 1.5. Carefully drill the two holes as per the Figure below. The 6,6 mm hole will be used to bolt on the relay, the 9 mm hole for a fir tree mount N57807. It is recommended to apply paint or a corrosion protector on the bare metal.

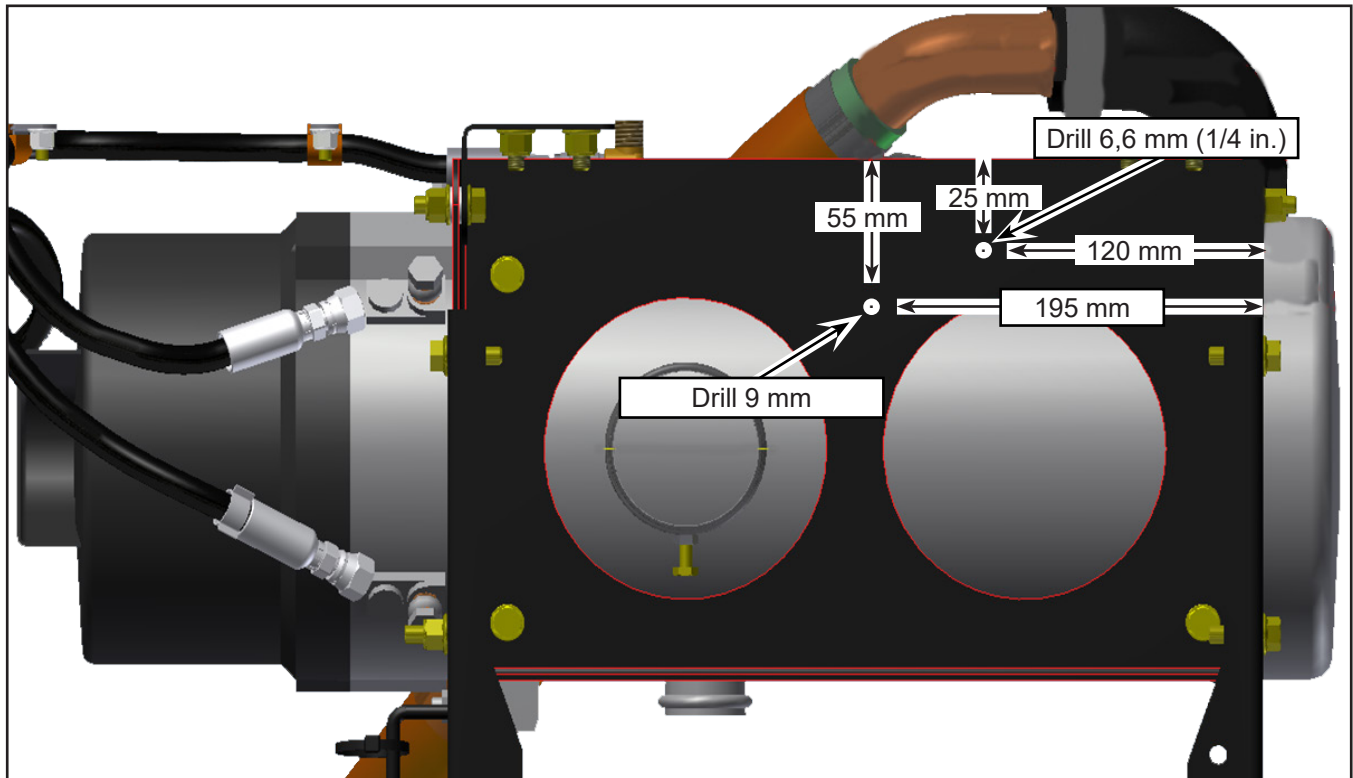


Figure 2 - Drill the Two Holes in the Cradle (Bottom View)

- 1.6. Install the slit convoluted conduit on the new harness and wrap it with the cloth tape.
- 1.7. Use two cable ties G5007996 to secure the harness on both sides of the relay.



Figure 3 - Secure the Relay

- 1.8. Route the new harness from the auxiliary heater unit head to the existing engine harness. Secure the harness relay on the engine cradle using the holes drilled in the previous step.
- 1.9. Your bus configuration may differ for the zone "A". Use a dual clamp tie N37749 to secure the harness to the fuel line to avoid interference with the cradle pivot.

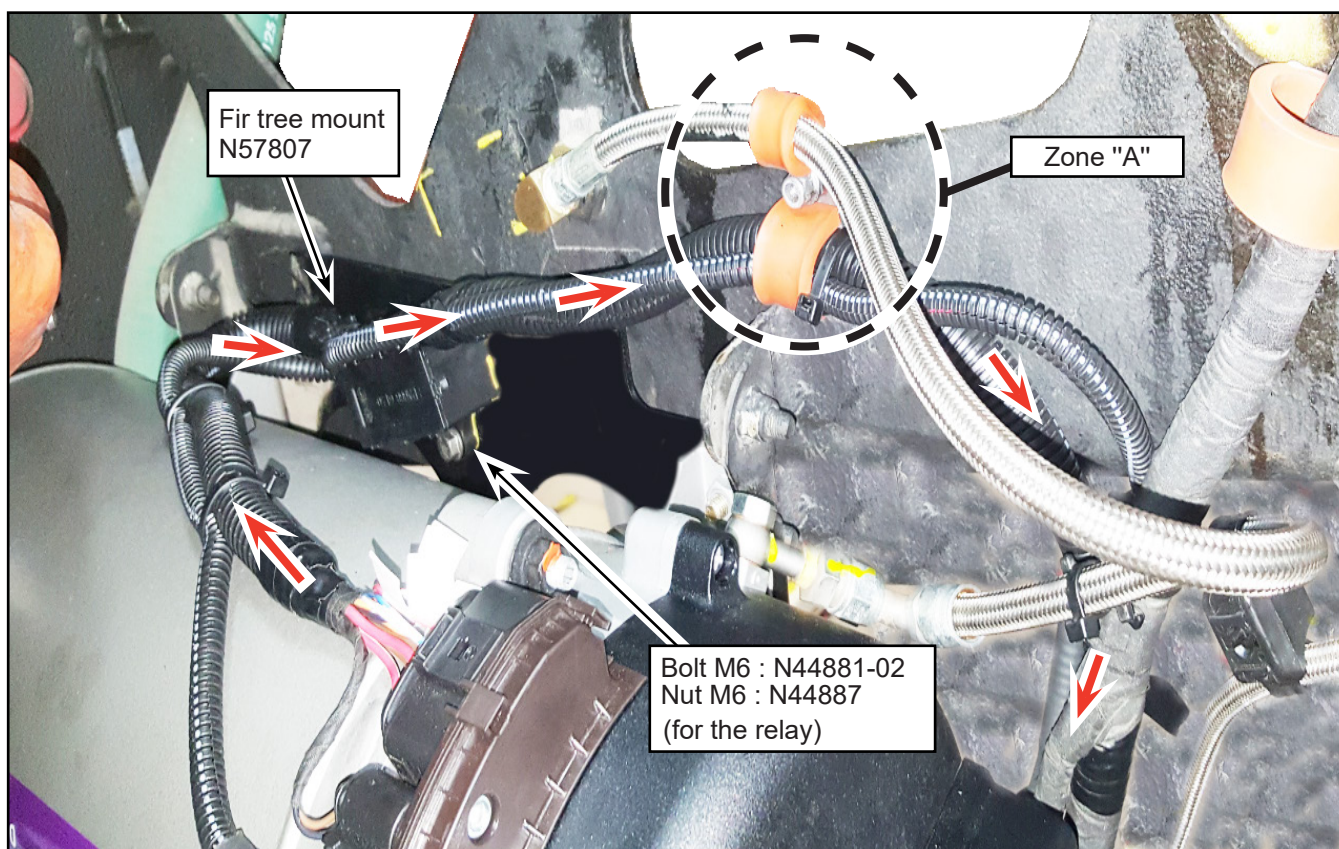


Figure 4 - Route and Secure the Harness (View With the Cradle Pivoted Downward)

- 1.10. Finish securing the harness with fir tree mounts N57807.

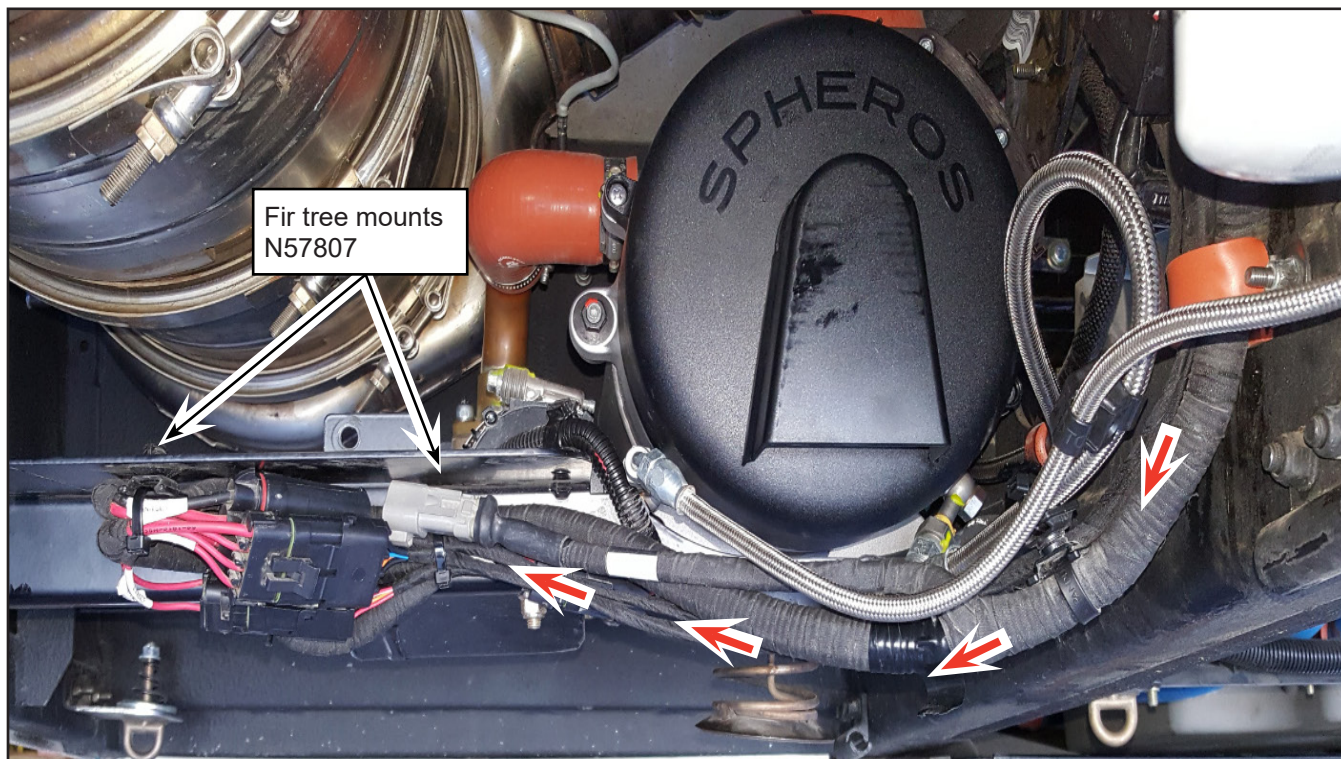


Figure 5 - Route and Secure the Harness (View With the Cradle Bolted in Place)

- 1.11. Complete the installation, including the procedure to refill the coolant as per your maintenance manual section **14: Auxiliary heater**.
- 1.12. Set the battery disconnect switch in the battery compartment to the **on** position.



CAUTION

The heater must never be run in an enclosed space (e.g., garages, workshops), unless it is connected to an exhaust suction circuit. To prevent a fire in the exhaust pipe, provisions must be made to siphon fresh air between the unit and the hose.

- 1.13. Start the heater to verify the functionality.
- 1.14. The vehicle can return in service.

