

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	N37969
1	N8908392	–	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
R1	2020OC19	Page 1, details added to the justification. Page 1 and 3, N97496 replaces N37969.	André Pelletier

APPROVED BY:

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CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
Ames Transportation Agency - Iowa	L707	660	661	S92U5C4500159	S92U1C4500160	2
Clemson Area Transit - South Carolina	L617	—	—	S92U5C4500002	S92U5C4500002	1
CT Transit - Connecticut	L554	1041	1065	S92U1A4000139	S92U0A4000164	25
CT Transit - Connecticut	L571	1101	1110	S92YXB4000144	S92Y4B4000169	10
Duke University - North Carolina	L651	—	—	S92Y1B4000145	S92Y3B4000146	2
Halifax - Nova Scotia	L558	717	731	S92UXA3000293	S92U6A3000307	15
Halifax - Nova Scotia	L613	732	741	S92UXB3000019	S92UXB3000028	10
Halifax - Nova Scotia	L708	742	761	S92UXC3000782	S92U3C3000803	20
Niagara Falls - Ontario	L652	—	—	S92U3C3000607	S92U6C3000617	11
Niagara Parks Commission - Ontario	L685	—	—	S92U9C3000644	S92U8C3000652	9
Saskatoon - Saskatchewan	L551	1005	1007	S92UXA3000178	S92U8A3000180	3
Saskatoon - Saskatchewan	L568	—	—	S92U9B3000013	S92U9B3000013	1
Saskatoon - Saskatchewan	L618	—	—	S92U1C3000377	S92U1C3000377	1
University of Colorado - Colorado	L627	—	—	S92UXB4000139	S92U6B4000140	2
York Regional Transit - Ontario	L562	1080	1082	S92U2A3000420	S92U6A3000422	3
York Regional Transit - Ontario	L572	1083	1094	S92U3A3000569	S92U2A3000580	12
York Regional Transit - Ontario	L654	1370	1390	S92U1D3000946	S92U2D3000986	21
York Regional Transit - Ontario	L761	1391	1396	S92U6D3001008	S92UXD3001013	6

**WARNING**

FOLLOW YOUR INTERNAL SAFETY PROCEDURES.

**NOTE**

The Thermo 350 heaters N37969 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**.

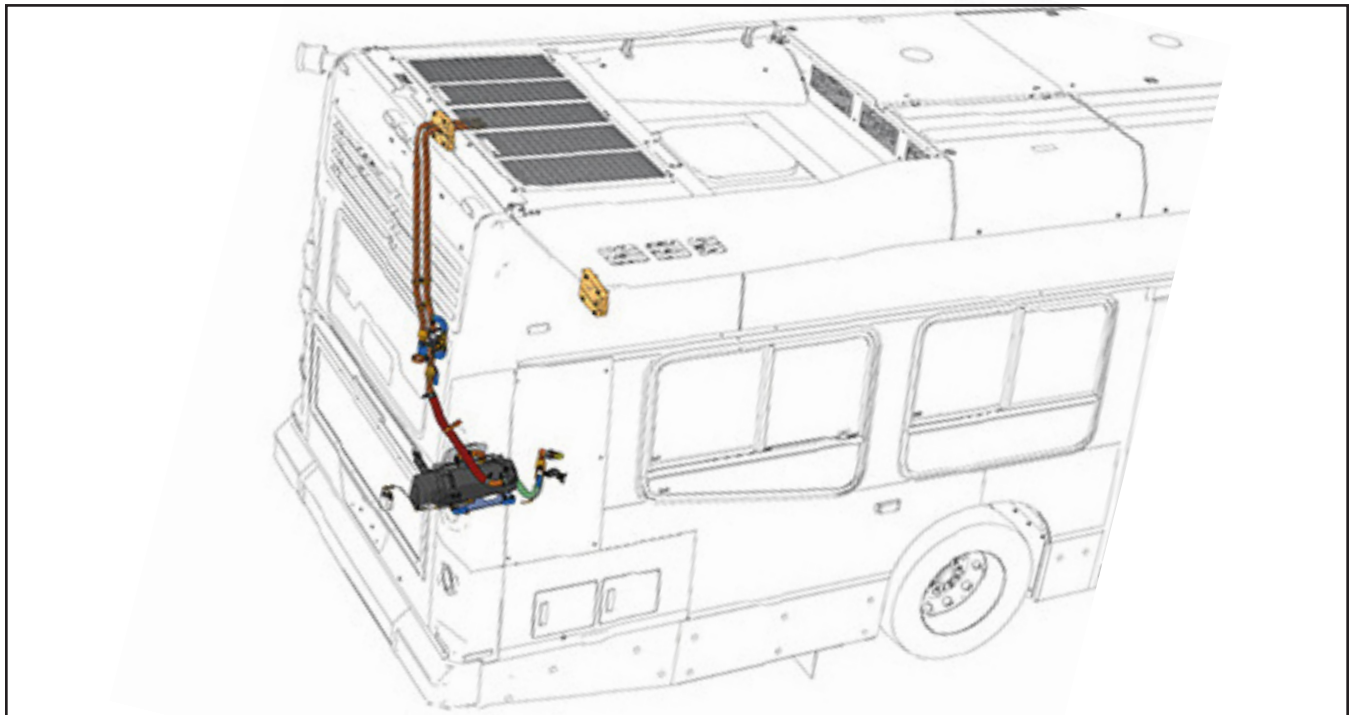


Figure 1 - Auxiliary Heater Location

**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.

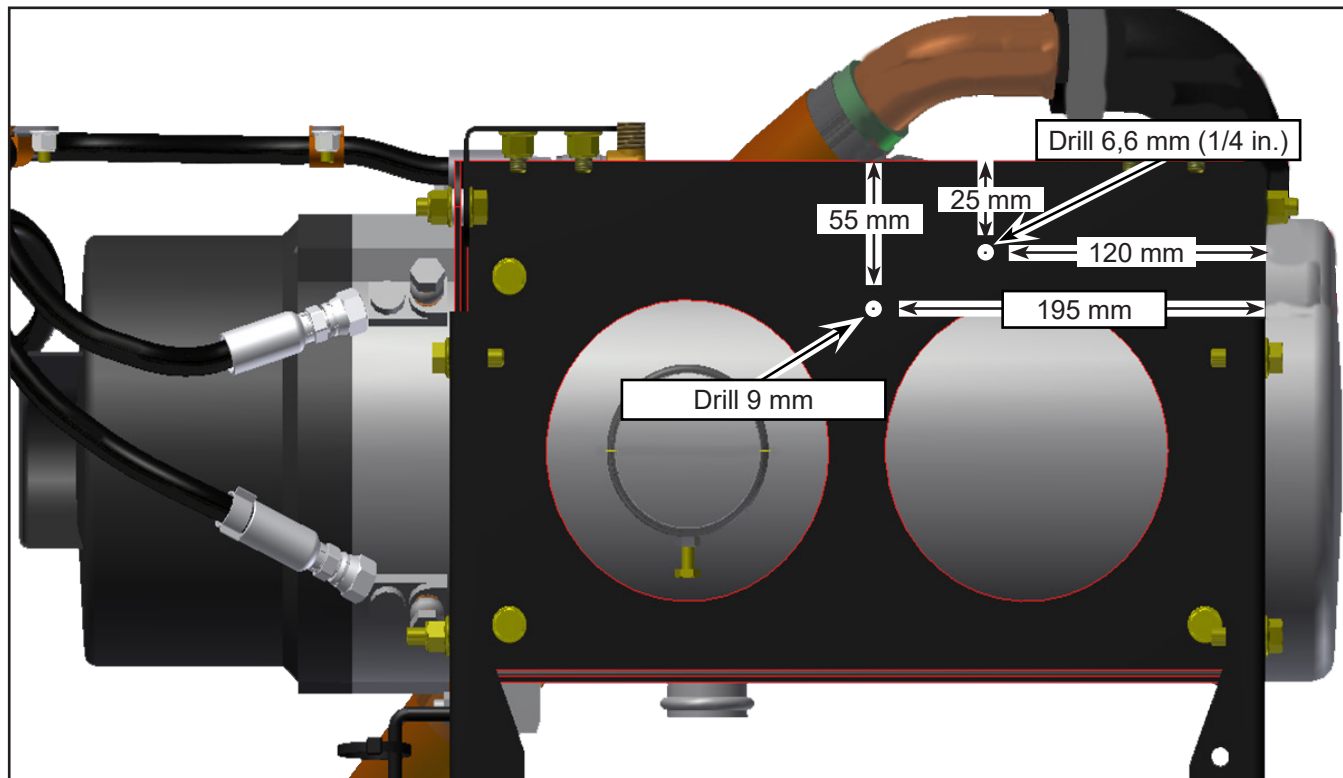


Figure 2 - Drill the Two Holes in the Cradle (Bottom View)

- 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.

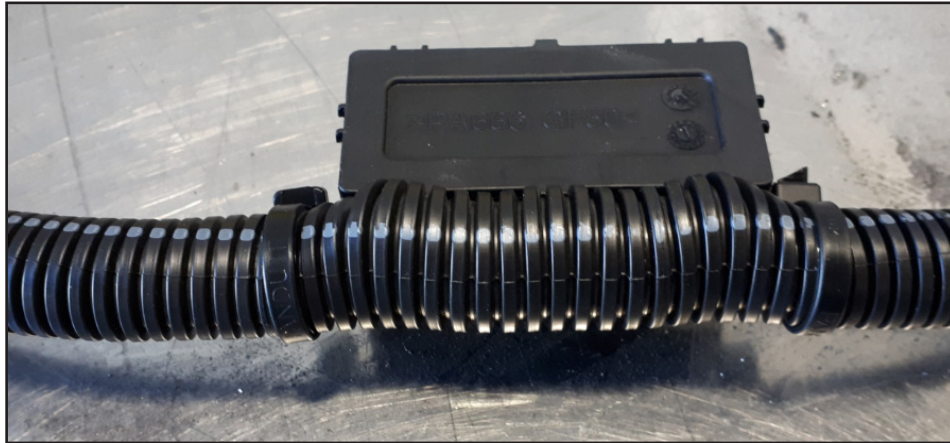


Figure 3 - Secure the Relay

- 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.

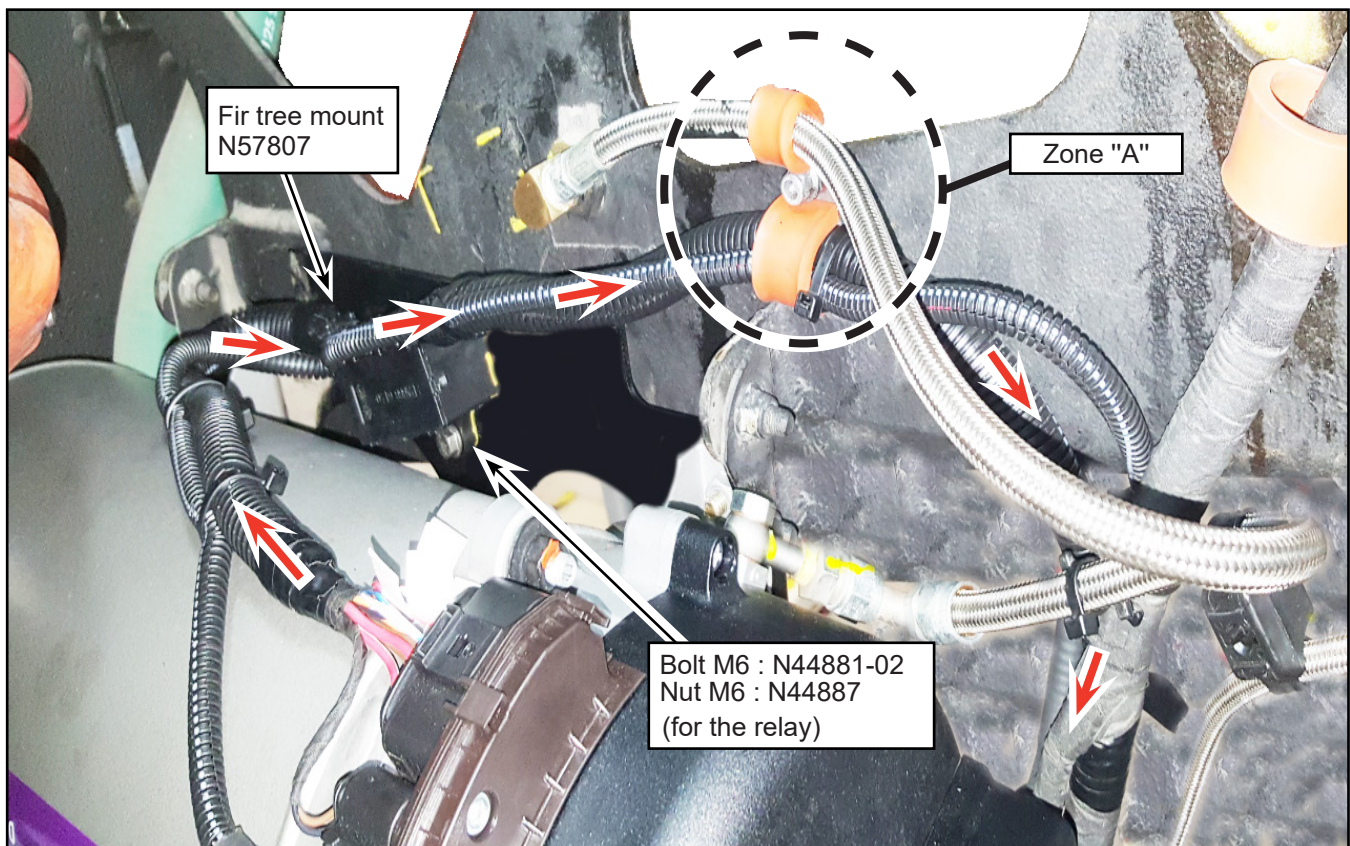


Figure 4 - Route and Secure the Harness (View With the Cradle Pivoted Downward)

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

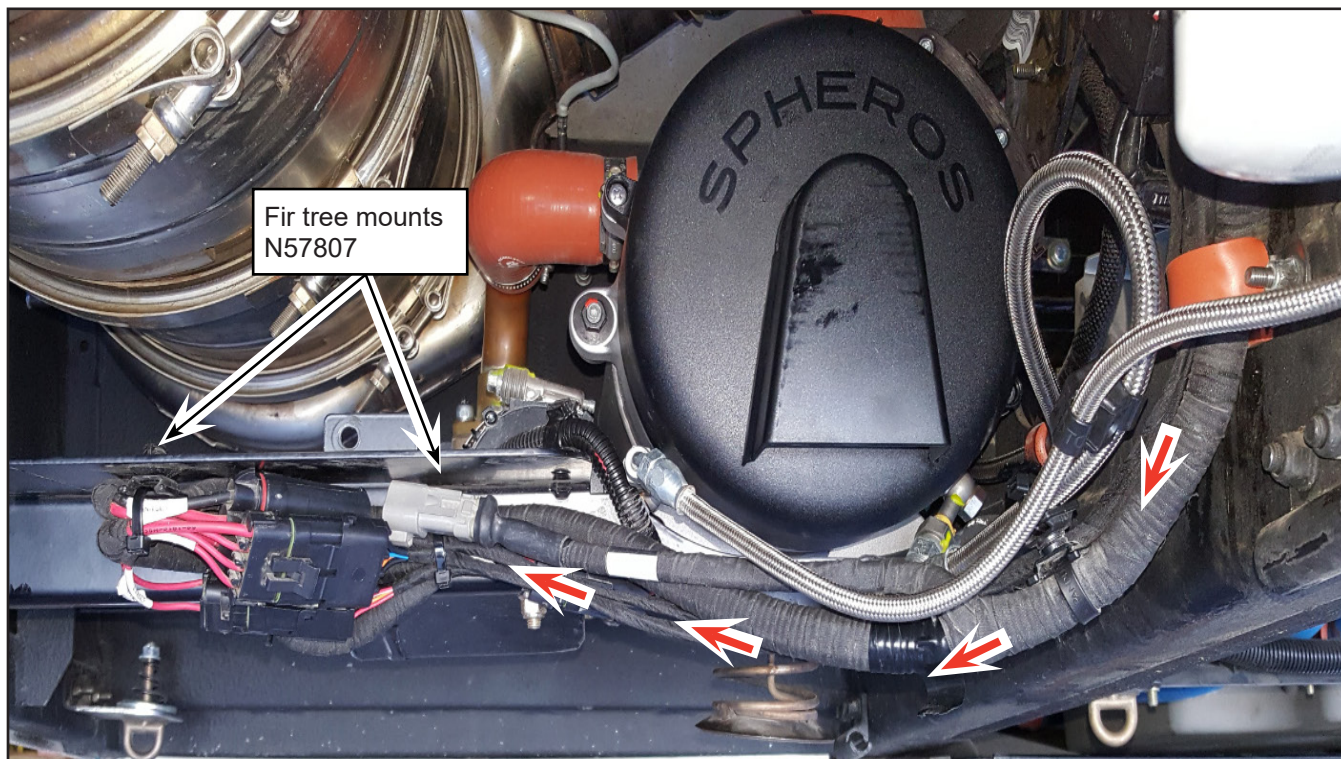


Figure 5 - Route and Secure the Harness (View With the Cradle Bolted in Place)

- 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.

