

REFERENCE:	Nova Bus Manuals
SECTION:	14: Heating and Ventilation
RS N°:	MQR 7621-980
EFFECTIVE IN PROD.:	N/A

APPLICATION DEADLINE: N/A

SUBJECT:	Driver's compartment defroster valve
JUSTIFICATION:	Procedure to follow when replacing a plastic motorize valve by a metal motorize valve.

LEVEL	DESCRIPTION	DIRECT CHARGES		TIME
		LABOUR	MATERIAL	
1	Installation of a metal motorize valve. A resistance is replaced to adjust the degree of rotation of the actuator.	Client	Client	—
2	—	—	—	—

MATERIAL

QTY	PART N°	REV.	DESCRIPTION	REPLACES PART N°
LEVEL 1				
1	N8904789	—	MCC WATER VALVE KIT	—
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.commands@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.
	—	—	

REVISION HISTORY

REV.	DATE	CHANGE DESCRIPTION	WRITTEN BY
NR	2016AU08	Initial release	Kumaraswamy K S
R1	2017JL11	Only the French version of this document has been cancelled.	Kumaraswamy K S

APPROVED BY: Daniel Theriault

Digitally signed by Daniel Theriault
 DN: cn=Daniel Theriault, o=Nova Bus, ou, email=daniel.theriault@volvo.com, c=CA
 Date: 2017.07.11 12:39:23 -0400

PAGE 1 OF 9

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
Airdrie Transit - Alberta	L664	—	—	L82U2B3000507	L82U2B3000507	1
Airdrie Transit - Alberta	L759	—	—	L82U0D3000928	L82U0D3000928	1
Ames Transportation Agency - Iowa	L707	660	661	S92U5C4500159	S92U1C4500160	2
BC Transit - BCT - British Columbia	L484	9370	9403	L82U494000090	L82U494000123	34
BC Transit - BCT - British Columbia	L487	9404	9433	L82U094000149	L82U794000178	30
BC Transit - BCT - British Columbia	L604	9434	9434	L82U5C3000597	L82U5C3000597	1
BC Transit - BCT - British Columbia	L735	9435	9440	L82U4C3000848	L82U8C3000853	6
BC Transit - BCT - British Columbia	L736	9441	9446	L82U8D3000854	L82U7D3000859	6
Belleville Transit - Ontario	L542	—	—	L82UXA3000088	L82U8A3000090	3
Belleville Transit - Ontario	L598	—	—	L82U5A3000581	L82U7A3000582	2
Belleville Transit - Ontario	L655	—	—	L82U3B3000385	L82U3B3000385	1
Belleville Transit - Ontario	L702	—	—	L82U4D3000706	L82U4D3000706	1
Belleville Transit - Ontario (ref. L754)	L809	—	—	L82U2D4500404	L82U2D4500404	1
Bow Valley Transit - Alberta	L712	5	6	L82U6C3000804	L82U8C3000805	2
Brampton - Ontario	L501	0917	0926	L82U893000506	L82U893000523	10
Brampton - Ontario	L789	—	—	L82J4E3001216	L82J1E3001223	8
Brampton - Ontario	L816	—	—	L82J3E3001224	L82J9E3001230	7
Brantford - Ontario	L547	10101	10105	L82X6A3000082	L82X3A3000086	5
Brantford - Ontario	L663	10121	10121	L82U1B3000532	L82U1B3000532	1
Brantford - Ontario	L718	10123	10125	L82U5C3000826	L82U9C3000828	3
Brantford - Ontario	L775	10131	10132	L82U1D3000999	L82U2D3001000	2
Calgary Transit - Alberta	L601	8101	8114	L82U5A4000099	L82U4A4000112	14
Calgary Transit - Alberta	L607	8115	8130	L82UXA3000477	L82U6A3000492	16
Calgary Transit - Alberta	L615	8131	8158	L82U1B4000019	L82U4B4000046	28
Calgary Transit - Alberta	L624	—	—	L82U4B4000077	L82U6B4000078	2
Calgary Transit - Alberta	L637	8161	8180	L82U7B3000356	L82U2B3000376	20
Calgary Transit - Alberta	L709	8181	8200	L82UXC3000806	L82U3C3000825	20
Calgary Transit - Alberta	L733	8201	8202	L82AXD3000926	L82A1D3000927	2
Clemson Area Transit - South Carolina	L617	—	—	S92U5C4500002	S92U5C4500002	1
Clemson Area Transit - South Carolina	L769	—	—	S92U1D4500418	S92U1D4500418	1
Clemson Area Transit - South Carolina (ref. L641)	L722	—	—	L82U1C4500005	L82U5C4500010	5
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
Fredericton - New Brunswick	L672	8111	8112	L82U0B3000540	L82U2B3000541	2
Fredericton - New Brunswick	L688	8113	8113	L82U8C3000643	L82U8C3000643	1
Fredericton - New Brunswick	L774	8131	8131	L82U7D3000960	L82U7D3000960	1
Fredericton - New Brunswick	L812	—	—	L82J4E3001202	L82J4E3001202	1
Grand River Transit - GRT - Ontario	L560	21001	21009	L82U2A3000246	L82U1A3000254	9
Grand River Transit - GRT - Ontario	L599	21116	21118	L82X9B3000465	L82X2B3000467	3
Grand River Transit - GRT - Ontario	L631	21119	21121	L82X4B3000468	L82X2B3000470	3

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
Grand River Transit - GRT - Ontario	L633	21101	21115	L82U7B3000289	L82U8B3000303	15
Grand River Transit - GRT - Ontario	L668	21201	21220	L82U6C3000737	L82UXC3000756	20
Greater Toronto Airports Authority - GTAA - Ontario	L616	—	—	L82U4C4500001	L82U4C4500001	1
Guelph - Ontario	L579	221	224	L82UXA3000401	L82U5A3000404	4
Guelph - Ontario	L669	225	228	L82U9B3000536	L82U4B3000539	4
Guelph - Ontario	L715	234	235	L82U3C3000792	L82U5C3000793	2
Guelph - Ontario	L767	237	239	L82UXD3000967	L82U3D3000969	3
Halifax - Nova Scotia	L558	717	731	S92UXA3000293	S92U6A3000307	15
Halifax - Nova Scotia	L613	732	741	S92UXB3000019	S92UXB3000028	10
Halifax - Nova Scotia	L693	526	534	L82U8C3000657	L82U7C3000665	9
Halifax - Nova Scotia	L708	742	761	S92UXC3000782	S92U3C3000803	20
Halifax - Nova Scotia	L710	1160	1161	L82U7C3000780	L82U9C3000781	2
Hampton Roads - Virginia (L754)	L802	—	—	L82U1D4500278	L82UXD4500408	7
Honolulu - Hawaii	L559	201	224	L82U6A4000113	L82U7A4000136	24
Houston - Texas	L737	1510	1510	S92U4D4500297	S92U4D4500297	1
Houston - Texas	L755	1511	1579	S92U4D4500333	S92U8D4500402	69
Kings Transit - Nova Scotia	L581	—	—	L82U2B3000054	L82U2B3000054	1
Lethbridge - Alberta	L489	165	169	L82U493000454	L82U193000458	5
LYNX - Florida	L725	—	—	S92Y9D4500329	S92Y5D4500330	2
LYNX - Florida	L764	—	—	S92Y7D4500331	S92Y9D4500332	2
LYNX - Florida	L785	—	—	S92L6E4500505	S92L8E4500506	2
Minnesota Valley Transit Authority - MVTA	L706	4252	4258	L82U4C4500127	L82UXC4500133	7
Moncton (Codiac) - New Brunswick	L569	—	—	L82U4B4000001	L82U4B4000001	1
Moncton (Codiac) - New Brunswick	L570	—	—	L82U6B4000002	L82U6B4000002	1
MTD - Santa Barbara, California	L730	—	—	S92J8E4500567	S92J1E4500569	3
Niagara Falls - Ontario	L499	2986	2989	L82U093000564	L82U693000567	4
Niagara Falls - Ontario	L652	—	—	S92U3C3000607	S92U6C3000617	11
Niagara Falls - Ontario	L653	—	—	L82U9C3000618	L82U9C3000621	5
Niagara Falls - Ontario	L771	1396	1397	L82U9D3000958	L82U0D3000959	2
Niagara Parks Commission - Ontario	L656	—	—	L82U0C3000653	L82U2C3000654	2
Niagara Parks Commission - Ontario	L685	—	—	S92U9C3000644	S92U8C3000652	9
Peterborough - Ontario	L770	55	60	L82U0D3000993	L82UXD3000998	6
Puerto Rico (ref. L754)	L788	—	—	L82UXD4500277	L82U0D4500305	16
Red Deer - Alberta	L726	—	—	L82UXC3000840	L82U1C3000841	2
Red Deer - Alberta	L766	1104	1105	L82U7D3001025	L82U9D3001026	2
Red Deer - Alberta	L772	1106	1108	L82J2E3001120	L82J6E3001122	3
Regina - Saskatchewan	L561	631	644	L82U8B4000003	L82UXB4000018	14
Regina - Saskatchewan	L639	645	654	L82U1B3000336	L82U2B3000345	10
Regina - Saskatchewan	L748	655	662	L82U3D3000874	L82U0D3000881	8
Regina - Saskatchewan	L776	663	669	L82U4D3001001	L82U5D3001007	7
Regina - Saskatchewan	L807	671	685	L82J8E3001137	L82J2E3001151	15

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
Saskatoon - Saskatchewan	L359	—	—	S92U583000289	S92U583000289	1
Saskatoon - Saskatchewan	L551	1005	1007	S92UXA3000178	S92U8A3000180	3
Saskatoon - Saskatchewan	L568	—	—	S92U9B3000013	S92U9B3000013	1
Saskatoon - Saskatchewan	L618	—	—	S92U1C3000377	S92U1C3000377	1
Saskatoon - Saskatchewan	L690	1201	1204	L82U6C3000690	L82U1C3000693	4
Sault Ste-Marie Transit Services - Ontario (ref. L686)	L641	135	139	L82U7C4500008	L82U6C4500016	5
SEPTA - Pennsylvania	L724	7300	7301	S92Y1D4500275	S92Y3D4500276	2
SEPTA - Pennsylvania	L728			L82W7D4500335	L82W7D4500335	1
SEPTA - Pennsylvania	L741	—	—	S92L4E4500504	S92L4E4500504	1
SEPTA - Pennsylvania	L743	—	—	S92L1E4500489	S92L2E4500503	15
SEPTA - Pennsylvania	L744	—	—	L82L7E4500570	L82LXE4500661	89
SEPTA - Pennsylvania	L749	7302	7354	S92Y7D4500409	S92L2E4500470	53
St. John - New Brunswick	L272	—	—	S92U483000011	S92U483000011	1
St. John - New Brunswick	L273	—	—	S92U383000050	S92U383000050	1
St. John's - Newfoundland	L503	1066	1066	L82U4A3000071	L82U4A3000071	1
St. John's - Newfoundland	L687	1201	1209	L82U7C3000598	L82U2C3000606	9
St. John's - Newfoundland	L731	1310	1314	L82U3C3000842	L82U2C3000847	5
St. John's - Newfoundland	L808	1415	1419	L82J4E3001152	L82J1E3001156	5
Stratford - Ontario	L493	—	—	L82U2A3000019	L82U2A3000019	1
Stratford - Ontario	L634	—	—	L82UXB3000352	L82UXB3000352	1
Stratford - Ontario	L752	—	—	L82U9D3000863	L82U9D3000863	1
Strathcona County Transit - Alberta	L523	2010	2010	L82U693000603	L82U693000603	1
Strathcona County Transit - Alberta	L524	3005	3010	L82X593000604	L82X493000609	6
Strathcona County Transit - Alberta	L580	2011	2023	L82U1A3000464	L82U8A3000476	13
Strathcona County Transit - Alberta	L659	2024	2028	L82U7B3000440	L82U4B3000444	5
Sudbury - Ontario	L552	801	808	L82U3A3000238	L82U0A3000245	8
Sudbury - Ontario	L632	811	817	L82U9B3000326	L82U4B3000332	7
Sudbury - Ontario	L740	831	833	L82U1D3000887	L82U5D3000889	3
Thunder Bay - Ontario	L614	—	—	L82UXB3000061	L82U3B3000063	3
Thunder Bay - Ontario	L662	20168	20168	L82U3B3000533	L82U7B3000535	3
Thunder Bay - Ontario	L739	—	—	L82U3D3000860	L82U7D3000862	3
Timmins - Ontario	L550	—	—	L82U8A3000171	L82UXA3000172	2
Timmins - Ontario	L661	—	—	L82U9B3000486	L82U9B3000486	1
Timmins - Ontario	L720	12-98	12-98	L82U0C3000829	L82U0C3000829	1
Timmins - Ontario	L783	—	—	L82U8D3001017	L82UXD3001018	2
Toronto Transit Commission - TTC - Ontario	L729	9000	9000	S92U9D3000905	S92U9D3000905	1
Toronto Transit Commission - TTC - Ontario	L738	9001	9005	S92J6D3001094	S92J3D3001098	5
University of Alabama - Alabama	L573	—	—	L82U9A4000137	L82U0A4000138	2
University of Alabama - Alabama	L640	—	—	L82U9B4000141	L82U0B4000142	2
University of Alabama - Alabama	L671	7024	7025	L82U5C4500119	L82U1C4500120	2
University of Alabama - Alabama	L727	7026	7027	L82U4D4500310	L82U6D4500311	2

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
University of Alabama - Alabama	L787	—	—	L82J2E4500507	L82J4E4500508	2
University of Colorado - Colorado	L627	—	—	S92UXB4000139	S92U6B4000140	2
Walt Disney World - Florida	L535	1204	1213	L82UXA4000003	L82U0A4000012	10
Whitehorse - Yukon	L563	38	41	L82U3A3000255	L82U9A3000258	4
Whitehorse - Yukon	L784	43	43	L82U9D3001057	L82U9D3001057	1
Woodstock - Ontario	L492	—	—	L82U4A3000040	L82U6A3000041	2
Woodstock - Ontario	L778	—	—	L82U2D3001014	L82U2D3001014	1
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**

TOOLS REQUIRED: Wire Cutter and Stripper, Splice Crimper (18-14GA), Heater Gun.

PROCEDURE

- 1.1. Park the vehicle on an even surface with transmission in neutral (N), ignition OFF and apply the parking brake.
- 1.2. Place the Master control switch in the STOP position (see Figure 1).

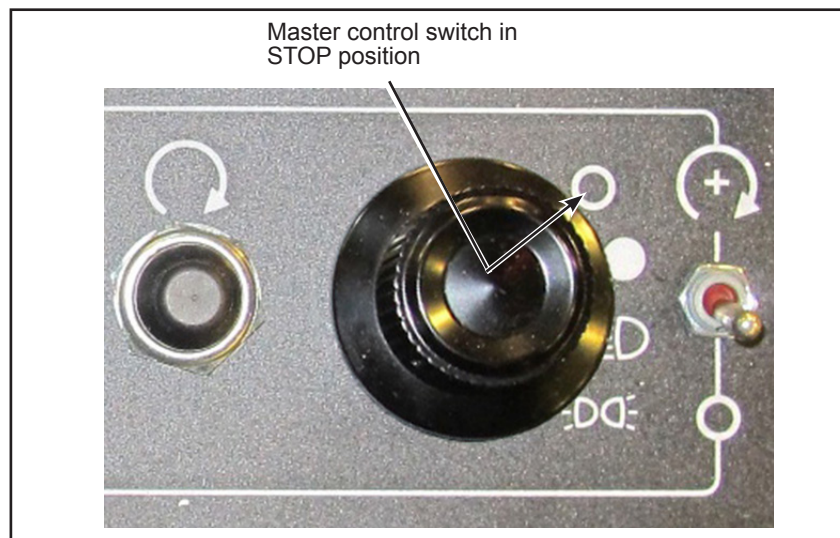


Figure 1 - Master Control Switch in STOP Position

- 1.3. Disconnect the battery ground cable. Insulate the terminals to avoid accidental grounding.
- 1.4. Open and remove the front dash access door. Place the door behind the driver's partition.
- 1.5. Turn the coolant control valves upward on the IN and OUT pipe to the closed position (see Figure 2).

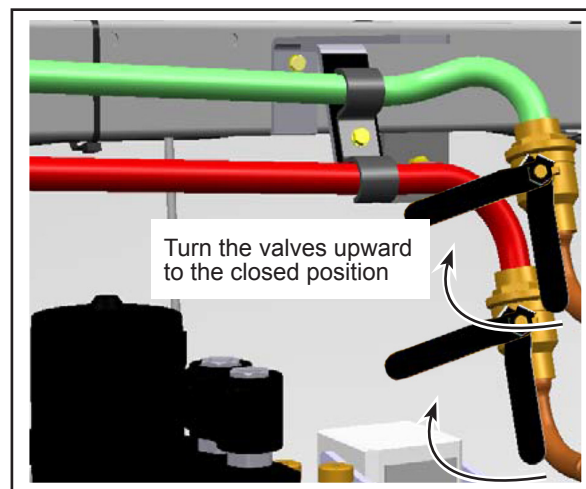


Figure 2 - IN and OUT Coolant Line Valves

- 1.6. Identify the location of heater valve assembly in defroster unit (see Figure 3).

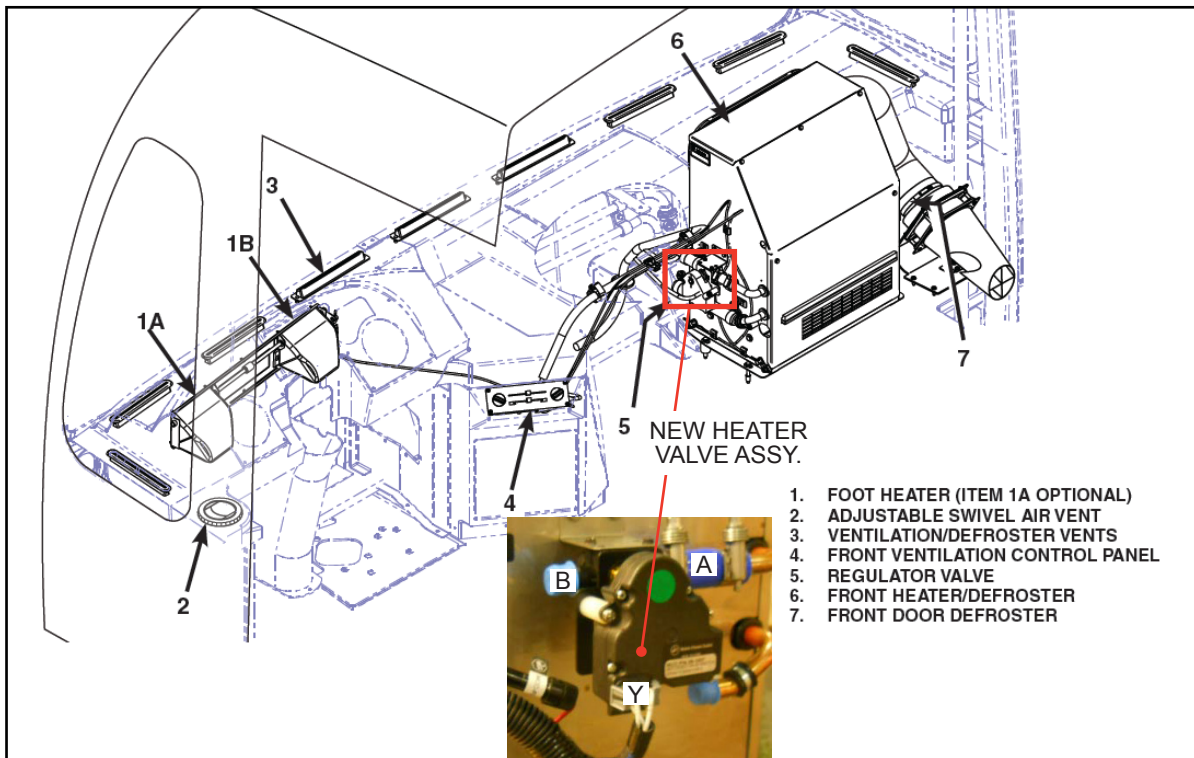


Figure 3 - Typical Heating System Components in Operator's Area

- 1.7. Disconnect the heater hoses (A, B) and harness (Y) (see Figure 3).
1.8. Collect the coolant from hoses into a container. Remove plastic heater valve assembly and discard.
1.9. Install with new heater valve assembly.
1.10. Connect the heater hoses (A, B) and harness (Y).
1.11. Clean any trace of coolant on the coolant hose or piping.



NOTE

See section 09.302: ENGINE COOLING of the Nova LFS maintenance manual for draining and filling the cooling system.

- 1.12. Turn the coolant valves downward on the IN and OUT pipe to the open position (see Figure 4).

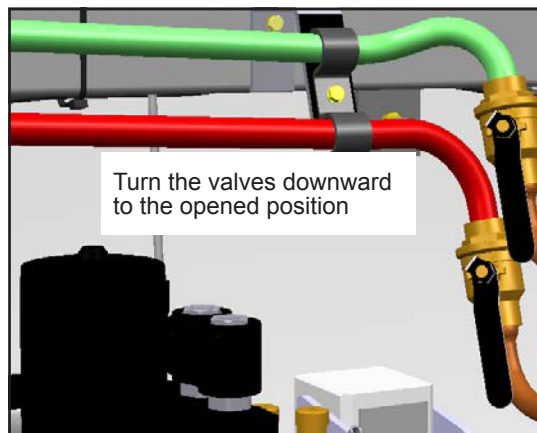


Figure 4 - Coolant Valve in Open Position

- 1.13. Inspect the coolant valve and coolant hoses for leakage.
- 1.14. Check for the coolant level and refill the storage coolant. Top up if required.
- 1.15. Locate the heater valve harness and identify the angle control resistor which is about 1.4-1.6 ft away from the mating connector. Then take wires out of the loom (see Figure 5).

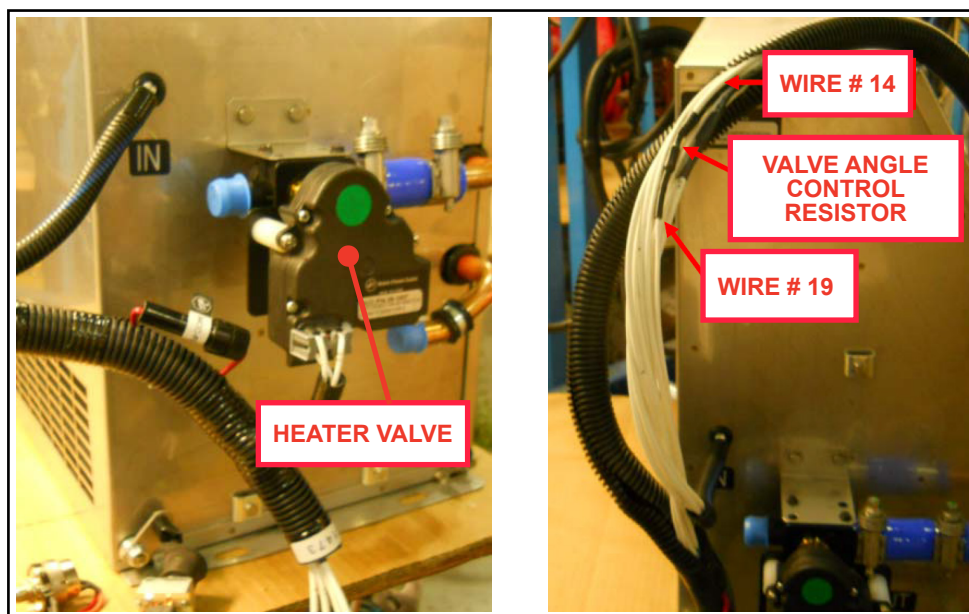


Figure 5 - Typical Location of Heater Valve and Valve Angle Control Resistor

- 1.16. Use provided jumper as reference to remove the existing "Valve Control Resistor" (see Figure 6).

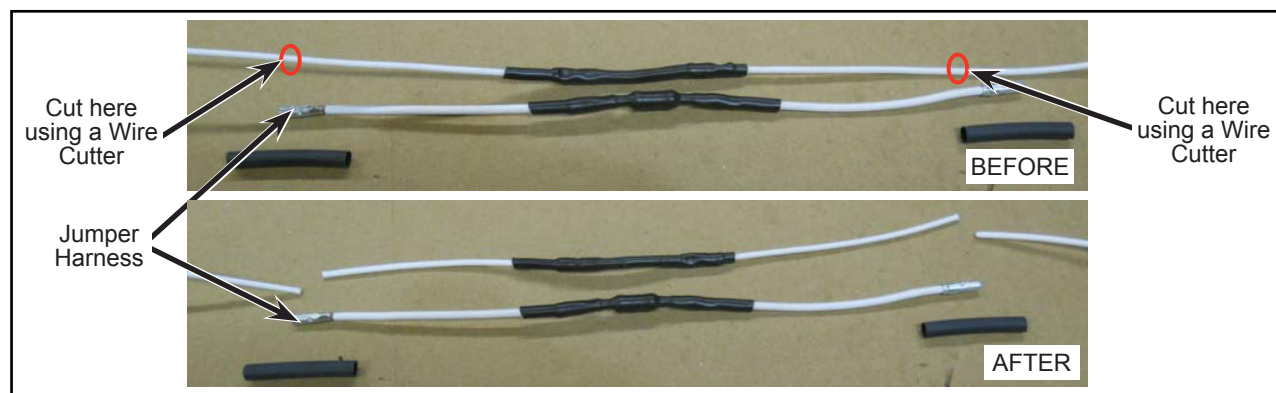


Figure 6 - Typical View of Jumper Harness

- 1.17. Strip off 0.25" insulation at the wire cut out ends. Slide the heat shrink to the jumper on each side (A, B). Crimp and connect the provided jumper harness (N8902748) (there is no polarity). Add solder from center of the splice to secure the joint points (see Figure 7).



Figure 7 - Typical View of Jumper Harness (N8902748) Connected on Each Side

- 1.18. Connect the battery ground cable.
- 1.19. Place the Master control switch in ON position.
- 1.20. Turn ON the bus ignition and test the newly installed valve. Operate heater valve to confirm functionality, then use heater gun to make sure the splice is covered and insulated by the heat shrink (see Figure 8).



Figure 8 - Typical View of Jumper Harness (N8902748) with Splice Covered

- 1.21. Put all the wires back into the loom to complete the electrical wiring harness upgrade.
- 1.22. Close the front dash access door.
- 1.23. The vehicle may be returned to service. ❖