

REFERENCE:	Nova Bus Manuals
SECTION:	09: Engine and cooling
RS N°:	MQR 7621-346
EFFECTIVE IN PROD.:	L840 (2014SE)

APPLICATION DEADLINE: 2016OC22
CLAIM REFERENCE NUMBER: WB-3239

SUBJECT:	Surge tank filling
JUSTIFICATION:	Coolant filling of the radiator surge tank might be erratic and create air pockets.

LEVEL	DESCRIPTION	DIRECT CHARGES		TIME
		LABOUR	MATERIAL	
1	Perform a pressure test on the engine cooling circuit and install a new filling tube on the surge tank.	Nova Bus	Nova Bus	45 min
2	–	–	–	–

MATERIAL

QTY	PART N°	REV.	DESCRIPTION	REPLACES PART N°
LEVEL 1				
1	N81254	–	Supply tube	–
LEVEL 2				
–	–	–	–	–

Materials will be available within 28 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	2014DE10	Initial release	Luc Carignan
R1	2015JA16	Revision of original solution for service	Luc Carignan
R2	2015SE21	Part number N80110-02 changed for N81254. Procedure changed per requirement of new part number,	Luc Carignan

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	0926	L82U893000506	L82U893000523	10
Brantford - Ontario	L547	10101	10105	L82X6A3000082	L82X3A3000086	5
CMBC (TransLink) - British Columbia	L412	9401	9401	L82X993000136	L82X993000136	1
CMBC (TransLink) - British Columbia	L454	9402	9470	L82X793000359	L82XX93000453	69
CMBC (TransLink) - British Columbia	L455	9471	9491	L82X093000459	L82X993000489	21
CMBC (TransLink) - British Columbia	L482	9492	9517	L82X894000040	L82X094000064	25
CMBC (TransLink) - British Columbia	L483	9518	9542	L82X294000065	L82X594000089	25
CMBC (TransLink) - British Columbia	L532	9543	9551	L82U093000497	L82U693000505	9
CMBC (TransLink) - British Columbia	L533	9552	9573	L82U193000511	L82U093000537	22
CMBC (TransLink) - British Columbia	L534	9574	9590	L82U694000124	L82U894000139	16
CMBC (West Vancouver) - British Columbia	L539	901	909	L82U494000140	L82U994000148	9
Demo - Engineering Platform 2010 (Altoona)	L373	373-1	373-1	L82UX83000151	L82UX83000151	1
Demo - Nova PF2010 (TARC)	L356	356-2	356-2	L82U883000231	L82U883000231	1
Demo - Proto Platform 2010	L271	—	—	L82U283000001	L82U283000002	2
Demo - Plateforme 2010 (ATUQ)	L456	—	—	L82U893000019	L82U893000019	1
Demo - Articulated Bus	L433	—	—	S92UX93000029	S92UX93000029	1
Grand River Transit - GRT - Ontario	L464	20901	20913	L82U193000296	L82U493000308	13
Grand River Transit - GRT - Ontario	L560	21001	21009	L82U2A3000246	L82U1A3000254	9
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
Honolulu - Hawaii	L559	201	224	L82U6A4000113	L82U7A4000136	24
Lethbridge - Alberta	L489	165	169	L82U493000454	L82U193000458	5
Marketing Sales Demo - MSD 1 ISB Hybrid	L548	—	—	L82X5A3000087	L82X5A3000087	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
New York City Transit - New York	L536	1200	1201	S92U793000490	S92U993000491	2
New York City Transit - New York	L545	1202	1289	S92U5A4000001	S92U0A4000098	88
Niagara Falls - Ontario	L499	2986	2989	L82U093000564	L82U693000567	4
Peterborough - Ontario	L490	—	—	L82UX93000345	L82U593000348	4
Regina - Saskatchewan	L356	356-1	356-1	L82U883000150	L82U883000150	1
Regina - Saskatchewan	L360	—	—	L82U283000290	L82U283000290	1
Regina - Saskatchewan	L476	625	628	L82U893000313	L82U393000316	4
Regina - Saskatchewan	L561	631	644	L82U8B4000003	L82UXB4000018	14
Saskatoon - Saskatchewan	L359	—	—	S92U583000289	S92U583000289	1
Saskatoon - Saskatchewan	L551	1005	1007	S92UXA3000178	S92U8A3000180	3
St. John - New Brunswick	L272	—	—	S92U483000011	S92U483000011	1
St. John - New Brunswick	L273	—	—	S92U383000050	S92U383000050	1

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
St. John's - Newfoundland	L503	1066	1066	L82U4A3000071	L82U4A3000071	1
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
University of Alabama - Alabama	L573	—	—	L82U9A4000137	L82U0A4000138	2
University of Colorado - Colorado	L427	—	—	S92U693000027	S92U693000027	1
University of Colorado - Colorado	L428	—	—	S92U893000028	S92U893000028	1
Walt Disney World - Florida	L535	1204	1213	L82UXA4000003	L82U0A4000012	10
Whitehorse - Yukon	L563	38	41	L82U3A3000255	L82U9A3000258	4
Woodstock - Ontario	L460	—	—	L82U693000309	L82U693000309	1
Woodstock - Ontario	L492	—	—	L82U4A3000040	L82U6A3000041	2

**WARNING**

Follow your internal safety procedures.

**CAUTION**

Wait until the temperature is below 120°F (50°C) before removing the radiator pressure cap. Failure to do so can cause personal injury from heated coolant spray.

PROCEDURE

- 1.1. Open the radiator access door. See Figure 1.

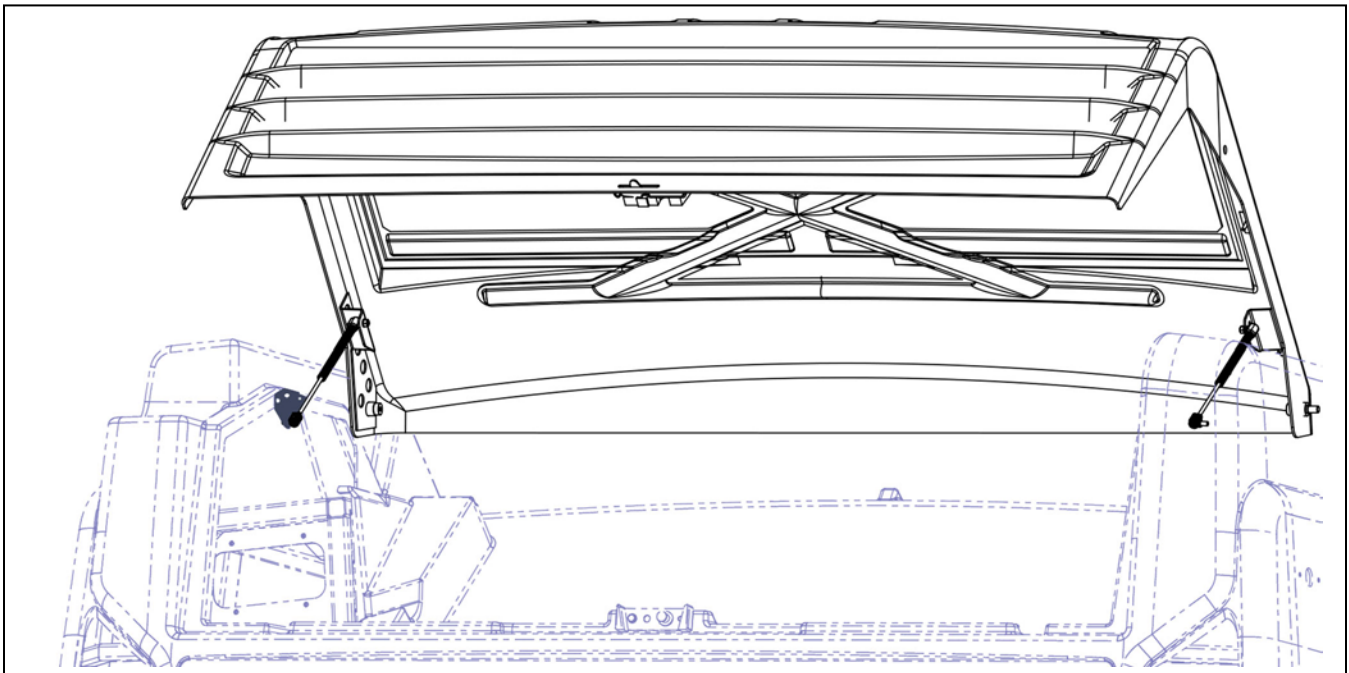


Figure 1 - Radiator Access Door

**WARNING**

Before starting any work on the radiator, make sure the vehicle is completely stationary. Isolate the engine starting circuit from the control box located at the rear of the vehicle.

- 1.2. Install a drain pan under the coolant circuit drain.
- 1.3. Open the rear engine door.
- 1.4. Close the control valve to isolate the engine cooling circuit from the heating circuit. See section **09: ENGINE COOLING** of the Nova Bus maintenance manual.

- 1.5. Connect a coolant filling hose equipped with a pressure regulator to the quick connect fitting and set the regulator to 10 psi. See Figure 2.

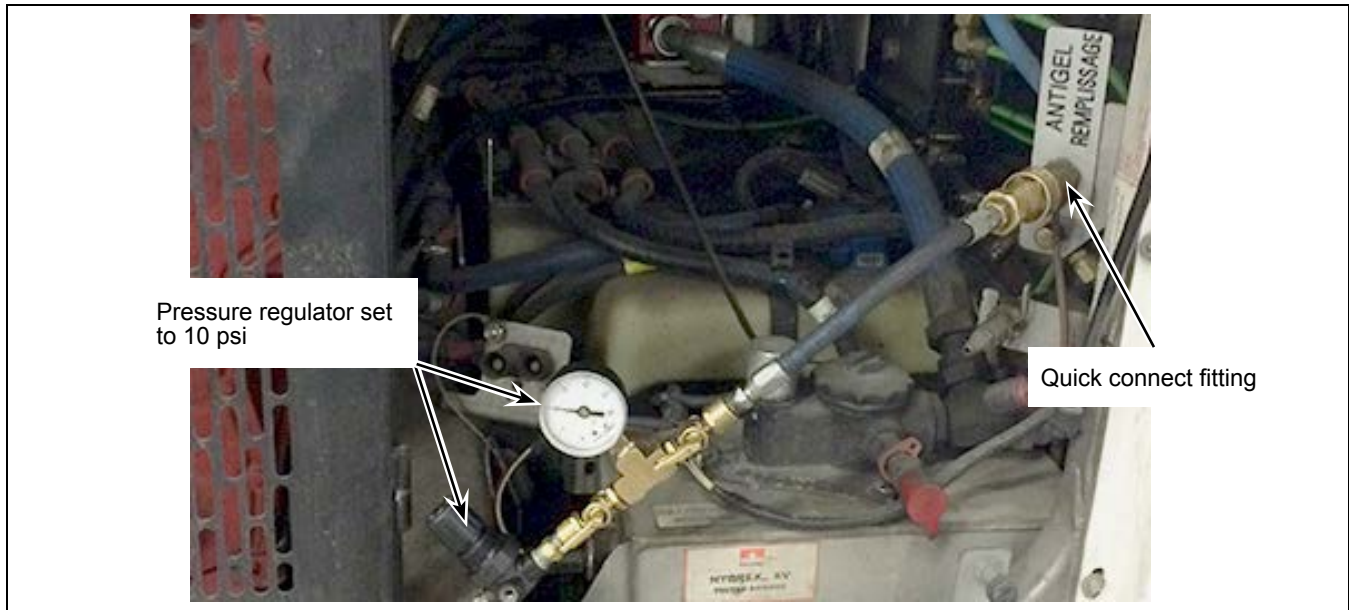


Figure 2 - Coolant Filling Hose Equipped with a Pressure Regulator

- 1.6. Validate visually if there are coolant leaks on the radiator.
 - 1.6.1. If there is a leak on the radiator, replace the radiator according to the replacement procedure in information letter **LI1846**.
- 1.7. Open the drain valve of the cooling circuit to remove enough coolant to empty the surge tank. See section **09: ENGINE COOLING** of the Nova Bus maintenance manual for drain valve location and procedure.
- 1.8. Disconnect the coolant filling hose equipped with a pressure regulator from the quick connect fitting.
- 1.9. Release pressure using the air discharge valve knob located on the coolant quick connect fitting bracket in the rear right portion of the engine compartment. See Figure 3.

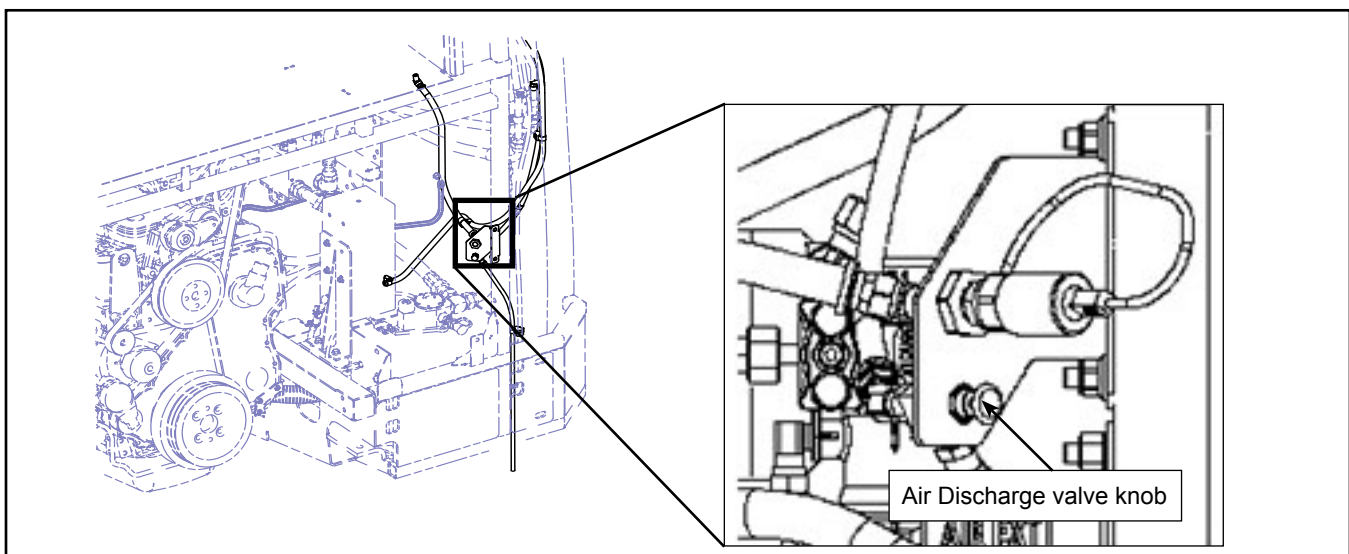


Figure 3 - Location of the Air Discharge Valve Knob in the Engine Compartment

- 1.10. Inspect if the top position of rigid supply tube N81254 is marked for alignment during installation. Mark the tube using an indelible marker if no mark is present on top of the tube. See Figure 4 for the position of the mark.
- 1.11. Remove the plastic protection on the fitting of the rigid supply tube. See Figure 4.
- 1.12. Loosen and separate the two rear fittings and apply a thin coat of sealant on the fitting indicated in Figure 4.

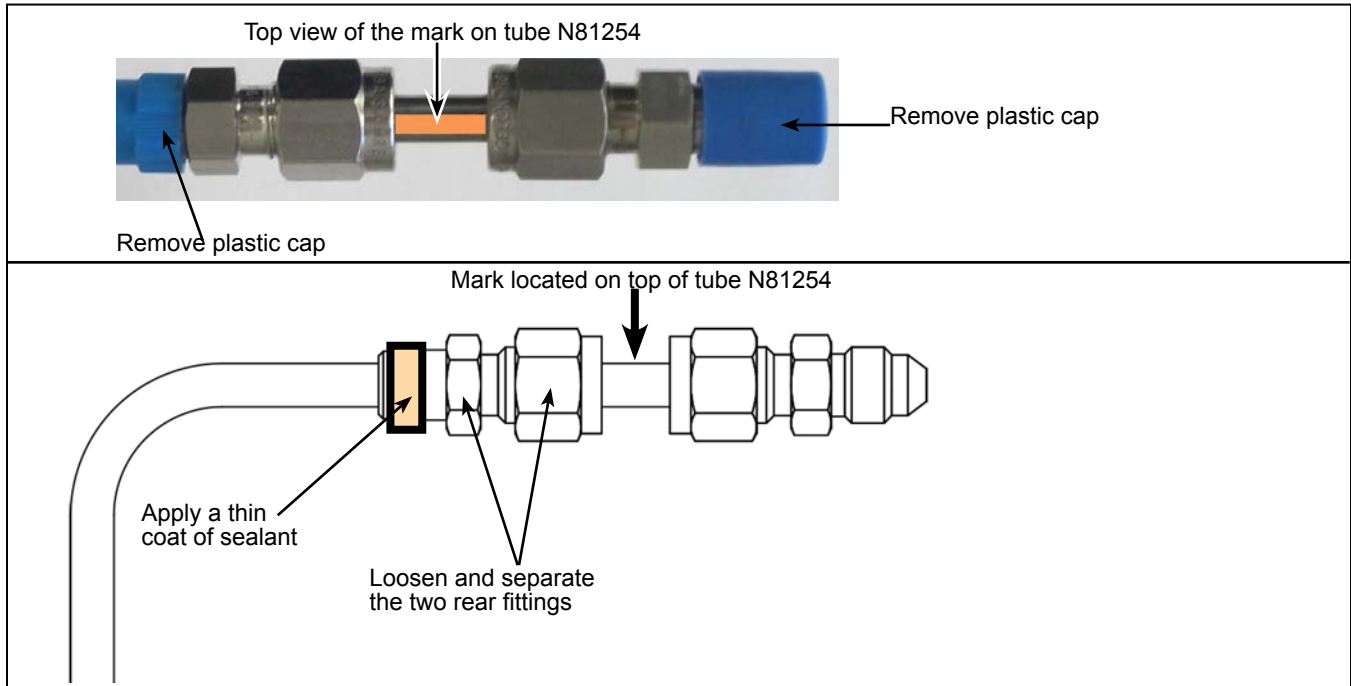


Figure 4 - Inspection and Preparation of Rigid Supply Tube N81254

- 1.13. Disconnect the braided hose (located between the radiator and the surge tank) from the surge tank fitting and remove the fitting from the surge tank. Discard the fitting. See Figure 5.

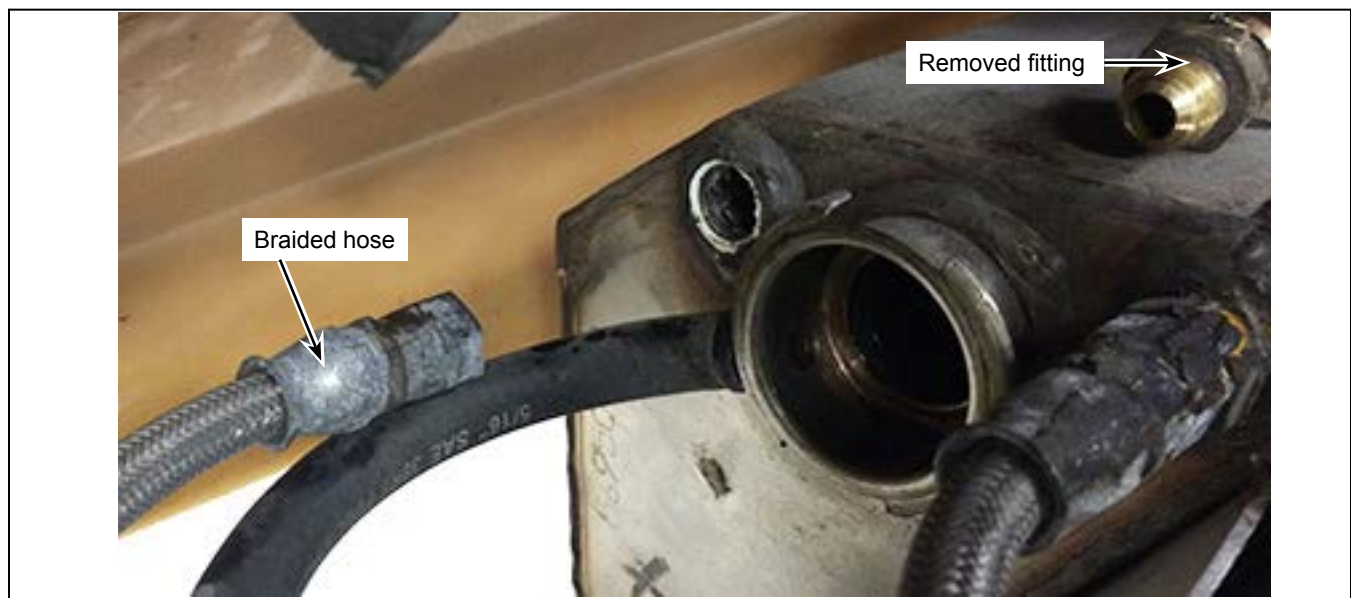


Figure 5 - Braided Hose Disconnected and Fitting Removed

- 1.14. Install rigid supply tube N81254 in the surge tank, making sure to position the mark on top. Hand-tighten the fitting and make another 1/4 of a turn with a wrench to fully tighten the fitting. See Figure 6.
- 1.15. Hand-tighten the second fitting on to the fitting on the surge tank and make another 1/8 of a turn with a wrench to fully tighten the fitting. The mark should remain on top while tightening the fitting. See Figure 6.

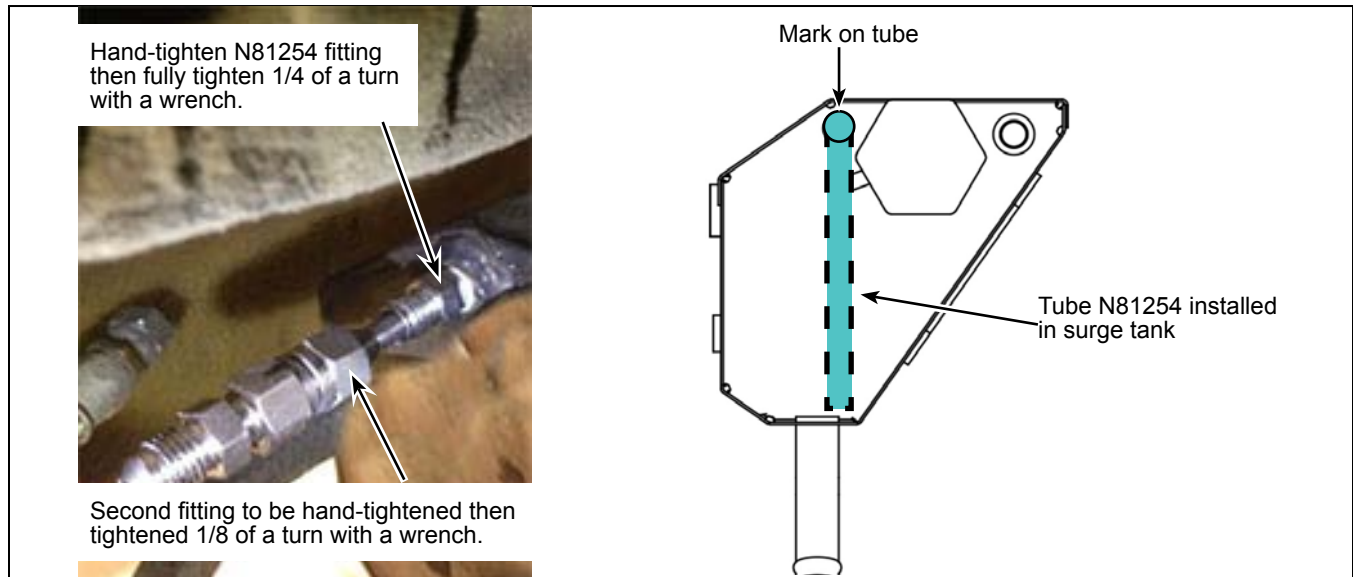


Figure 6 - Rigid Supply Tube N81254 Installation on Surge Tank

- 1.16. Hand-tightened the braided hose to the rigid supply tube and tighten another 1/4 of a turn with a wrench.
- 1.17. Start the vehicle in rear mode using the switches located on the engine control box.
- 1.18. Activate the fast idle and let the engine run for 30 minutes in fast idle mode.
- 1.19. Stop the engine.
- 1.20. Open the control valve to join the engine cooling and heating circuits.
- 1.21. Top the coolant level if needed.
- 1.22. Close and lock the radiator access and rear engine doors. ❖