

REFERENCE:	Nova Bus Manuals
SECTION:	18: Articulation system
RS N°:	MQR 7621-661& 7621-730
EFFECTIVE IN PROD.:	L898 (2015JN)

APPLICATION DEADLINE: 2016AU20
CLAIM REFERENCE NUMBER: WB-3379

SUBJECT:	Hübner articulation
JUSTIFICATION:	The red artic tell tale light comes on: 1- for an «Error 2 Plausibility 2» code lights, generated, for no reason 2- when no code is registered in the ACU (ghost code).

LEVEL	DESCRIPTION	DIRECT CHARGES		TIME
		LABOUR	MATERIAL	
1	Reprogram the articulation control unit (ACU).	Nova Bus	Nova Bus	12 min
2	–	–	–	–

MATERIAL

QTY	PART N°	REV.	DESCRIPTION	REPLACES PART N°
LEVEL 1				
1	N68707	–	File ACU_34.39.NOV.T03.0343.hex	–
1	N68772	–	File ACU_34.39.NOV.T03.0410.hex	–
1	N71606	–	File ACU_34.39.NOV.T03.063B.hex	–
1	N76398	–	File ACU_34.39.NOV.T03.068C.hex	–
1	N76880	–	File ACU_34.39.NOV.T03.0341.hex	–
1	N78337	–	File ACU_34.39.NOV.T03.068C.hex	–
1	N78346	–	File ACU_34.39.NOV.T03.0341.hex	–
1	N82492	–	File ACU_34.39.NOV.T03.0639.hex	–
LEVEL 2				
–	–	–	–	–

Materials will be available within 2 days. To order, please contact your Nova Bus service representative.

To know which part number to use for your vehicle, refer to the client list on page 2 of this document.

DISPOSAL OF PARTS

REMOVED PARTS ARE:	DISCARDED	RETAINED	–
	–	–	

REVISION HISTORY

REV.	DATE	CHANGE DESCRIPTION	WRITTEN BY
NR	2015JN30	Initial release	Bertrand Plouffe
R1	2015AU13	Detail the justification and reprogramming procedure	Bertrand Plouffe
R2	2016FE26	Correct the application deadline date	Bertrand Plouffe

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: 2016.02.26 08:56:49 -05'00'

CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY	PART N°
		FROM	TO	FROM	TO		
Ames Transportation Agency - Iowa	L707	660	661	S92U5C4500159	S92U1C4500160	2	N68772
Austin - CMTA - Texas	L635	5001	5001	S92U7C4500163	S92U7C4500163	1	N68772
Austin - CMTA - Texas	L636	5002	5022	S92U1D4500306	S92U0D4500328	21	N68772
Clemson Area Transit - South Carolina	L769	—	—	S92U1D4500418	S92U1D4500418	1	N82492
CT Transit - Connecticut	L814	1462	1473	S92LXE4500717	S92L4E4500728	12	N78337
CT Transit - Connecticut	L815	1426	1426	S92L0E4500709	S92L0E4500712	4	N78337
Halifax - Nova Scotia	L708	742	761	L92UXC3000782	S92U3C3000803	20	N71606
LYNX - Florida	L725	—	—	S92Y9D4500329	S92Y5D4500330	2	N76398
LYNX - Florida	L764	—	—	S92Y7D4500331	S92Y9D4500332	2	N76398
LYNX - Florida	L785	—	—	S92L6E4500505	S92L8E4500506	2	N78337
MTD - Santa Barbara, California	L730	—	—	S92J8E4500567	S92J1E4500569	3	N78346
San Joaquin County - California	L768	—	—	S92L4D4500422	S92L3D4500427	6	N76398
SEPTA - Pennsylvania	L742	7371	7414	S92L6E4500729	S92L7E4500772	44	N78337
SEPTA - Pennsylvania	L743	—	—	S92L1E4500489	S92L2E4500503	15	N76398
SEPTA - Pennsylvania	L745	7415	7415	S92L0F4500873	S92L0F4500873	1	N78337
SEPTA - Pennsylvania	L746	7416	7442	S92L7F4500952	S92L6F4500982	27	N78337
SEPTA - Pennsylvania	L746	7444	7449	S92L7F4500985	S92L6F4500997	6	N78337
SEPTA - Pennsylvania	L749	7302	7310	S92Y7D4500409	S92L2E4500417	9	N78337
SEPTA - Pennsylvania	L749	7312	7328	S92Y7D4500420	S92L2E4500444	17	N78337
SEPTA - Pennsylvania	L749	7330	7333	S92Y7D4500447	S92L2E4500449	4	N78337
SEPTA - Pennsylvania	L749	7336	7338	S92Y7D4500452	S92L2E4500454	3	N78337
SEPTA - Pennsylvania	L749	7341	7352	S92Y7D4500457	S92L2E4500468	12	N78337
SEPTA - Pennsylvania	L749	7354	7354	S92Y7D4500470	S92L2E4500470	1	N78337
Toronto Transit Commission - TTC - Ontario	L729	9000	9000	S92U9D3000905	S92U9D3000905	1	N76880
Toronto Transit Commission - TTC - Ontario	L738	9001	9026	S92J6D3001094	S92J7D3001119	26	N76880
Toronto Transit Commission - TTC - Ontario	L777	9027	9152	S92J7E3001123	S92J6E3001372	126	N78346
Walt Disney World - Florida	L763	—	—	S92U0D3001019	S92U4D3001024	6	N68707
York Regional Transit - Ontario	L654	1370	1390	S92U1D3000946	S92U2D3000986	21	N68772
York Regional Transit - Ontario	L761	1391	1396	S92U6D3001008	S92UXD3001013	6	N68772

**WARNING**

Follow your internal safety procedures.

PROCEDURE

- 1.1. Open the RF9 panel door located at the rear interior of the vehicle.
- 1.2. Locate the Hübner Articulation Control Unit (ACU). See Figure 1.

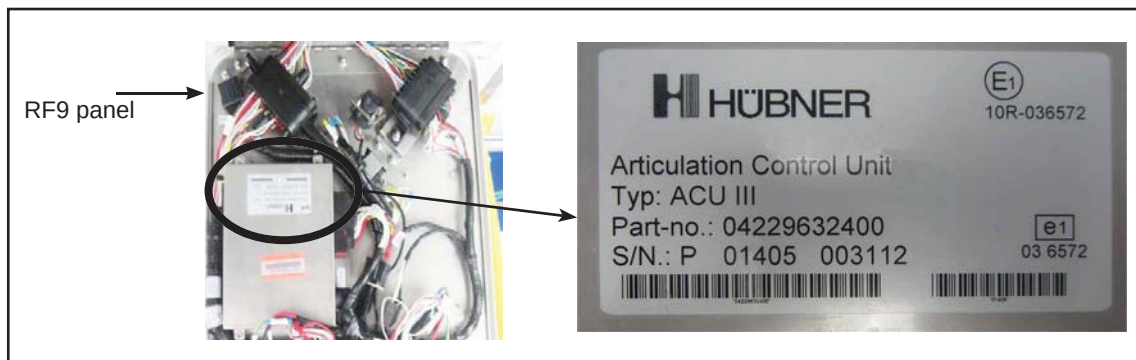


Figure 1 - Location of the Hübner Articulation Control Unit (ACU) in the RF9 Panel

- 1.3. You will have to use the **HÜBNER SERVICE INTERFACE** to connect your computer to the vehicle's ACU. See Figure 2.



Figure 2 - Hübner Service Interface (Part N° N8900610)

**NOTE**

The HÜBNER SERVICE INTERFACE is not supplied for this campaign.

- 1.4. Locate the ACU's 9-pin connector. See Figure 3.



Figure 3 - ACU 9-pin Connector Location in the RF9 Panel

- 1.5. Connect the Hübner service interface to the ACU's 9-pin connector in the RF9 panel. See Figures 2 and 3.
- 1.6. Connect the Hübner service interface USB plug to your computer.
- 1.7. Set the vehicle's master control switch to the RUN position. The interface's red light will come on to indicate it is powered.
- 1.8. Identify the file corresponding to the vehicle you have to update. See client list on page 2 of this document. Save the file in your computer.
- 1.9. Start the Hübner software by clicking the icon. See Figure 4.

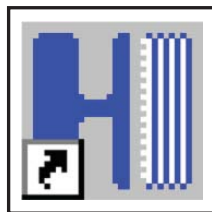


Figure 4 - Hübner Software Icon

- 1.10. Click on the **CONNECT** button. See Figure 5. The interface's green light will come on to indicate it is connected.



Figure 5 - Hübner Software Top Menu

- 1.11. A pop-up window will appear to identify the already installed ACU software. See Figure 6. Click OK.

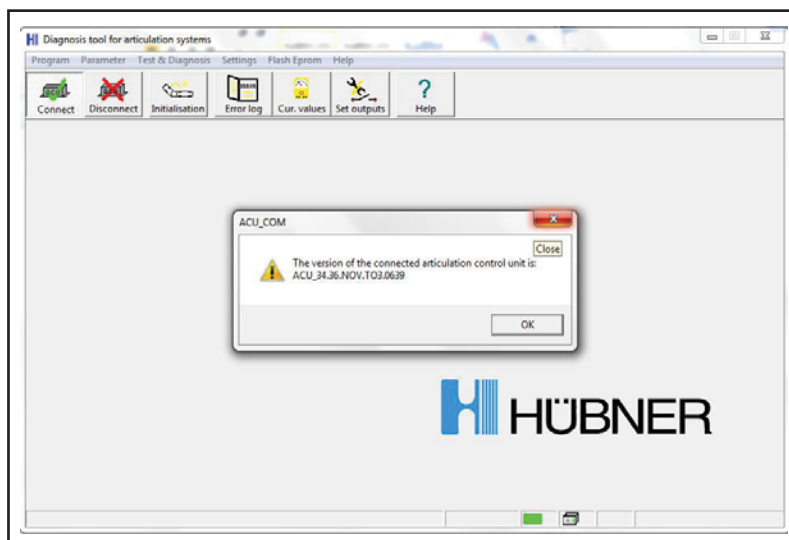


Figure 6 - Typical Window Identifying the Already Installed ACU Software

- 1.12. Select **FLASH EPROM** (1) from the Hübner software top menu. See Figure 7.

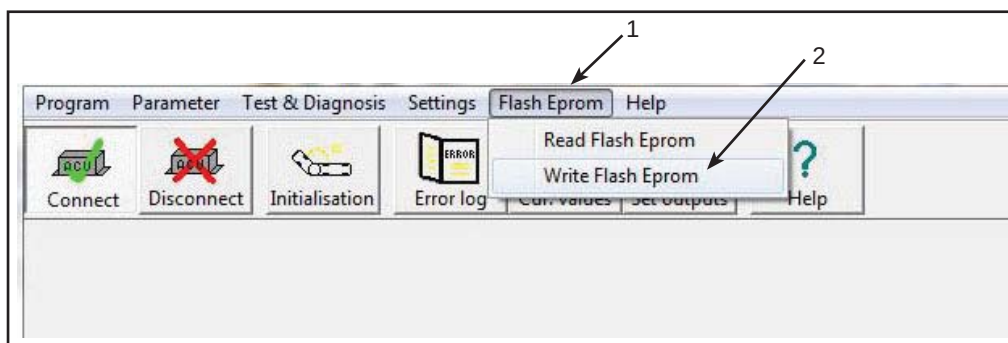


Figure 7 - Hübner Software Top Menu

- 1.13. Click on **WRITE FLASH EPROM** (2) in the sub-menu. See Figure 7.



NOTE

If you can't access **WRITE FLASH EPROM** (2), (see Figure 7), contact your Nova Bus service representative.

- 1.14. In the open window, choose the updated file you downloaded for your vehicle at step 1.8.

- 1.15. A progress window will appear. See Figure 8.

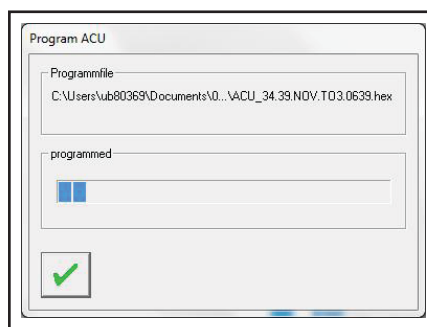


Figure 8 - Typical Progress Window

- 1.16. When the upload is finished, a pop-up window will appear to confirm that the unit is now programmed and the ACU that should be restarted. See Figure 9. Click OK.

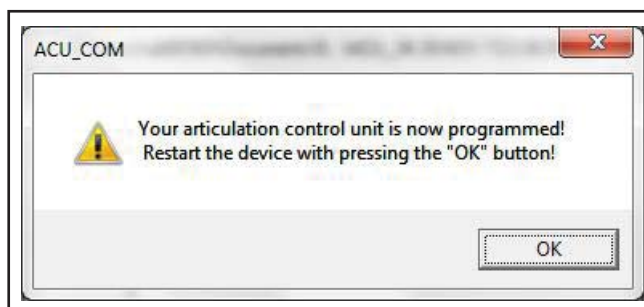


Figure 9 - Upload Completed and ACU Restart Window

- 1.17. A second pop-up window will appear to confirm the ACU software version. See Figure 10. Compare the version in the pop-up with the one you uploaded. If the two versions are identical, click OK. If not, redo the procedure from step 1.8.

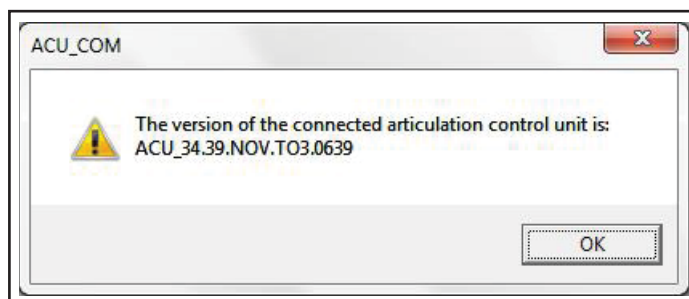


Figure 10 - Typical Software Version Window

- 1.18. A third pop-up window will appear, asking whether to keep the initialisation values. See Figure 11. Click **YES**.

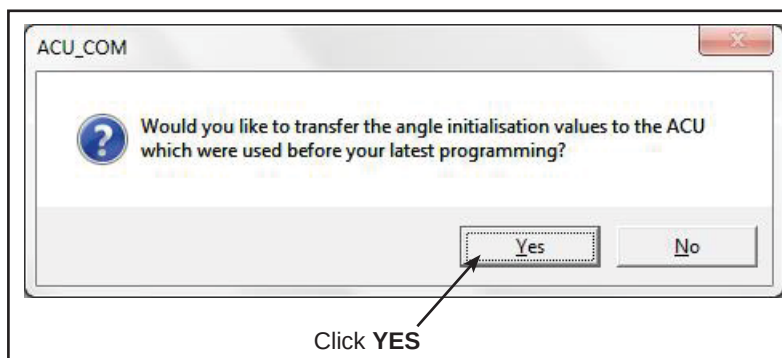


Figure 11 - Initialisation Values Pop-Up Window

- 1.19. Click on the **DISCONNECT** button from the Hübner software top menu. See Figure 12.



Figure 12 - Hübner Software Top Menu

- 1.20. Set the vehicle's master control switch to the **STOP** position.
- 1.21. Disconnect the Hübner service interface USB cable from your computer.
- 1.22. Disconnect the 9-pin connector from the RF9 panel plug.
- 1.23. Close the RF9 panel door.
- 1.24. The vehicle may be returned to service. ❖