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|---------------------|-------------------------|
| REFERENCE: | Nova Bus Manuals |
| SECTION: | 18: Articulation system |
| RS N°: | MQR 7621-661& 730 |
| EFFECTIVE IN PROD.: | N/A |

APPLICATION DEADLINE: 2016JL15
CLAIM REFERENCE NUMBER: WB-3379

| | |
|----------------|--|
| SUBJECT: | Hübner articulation system |
| JUSTIFICATION: | The communication between transmission and the Hübner articulation system requires optimization. |

| 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 | see client list on page 2 | - | updated software | - |
| LEVEL 2 | | | | |
| - | - | - | - | - |

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

DISPOSAL OF PARTS

| REMOVED PARTS ARE: | DISCARDED | RETAINED | |
|--------------------|-----------|----------|---|
| | - | - | - |

REVISION HISTORY

| REV. | DATE | CHANGE DESCRIPTION | WRITTEN BY |
|------|----------|--------------------|------------------|
| NR | 2015JN30 | Initial release | Bertrand Plouffe |

| CLIENT | ORDER | ROAD NUMBER | | VIN (2NVY/4RKY...) | | QTY | SOFTWARE PART # |
|--|-------|-------------|------|--------------------|---------------|-----|-----------------|
| | | 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 | N68899 |
| LYNX - Florida | L764 | — | — | S92Y7D4500331 | S92Y9D4500332 | 2 | N68899 |
| 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 | S92L2E4500502 | 14 | 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. Identify the ACU unit installed. See Figure 1.

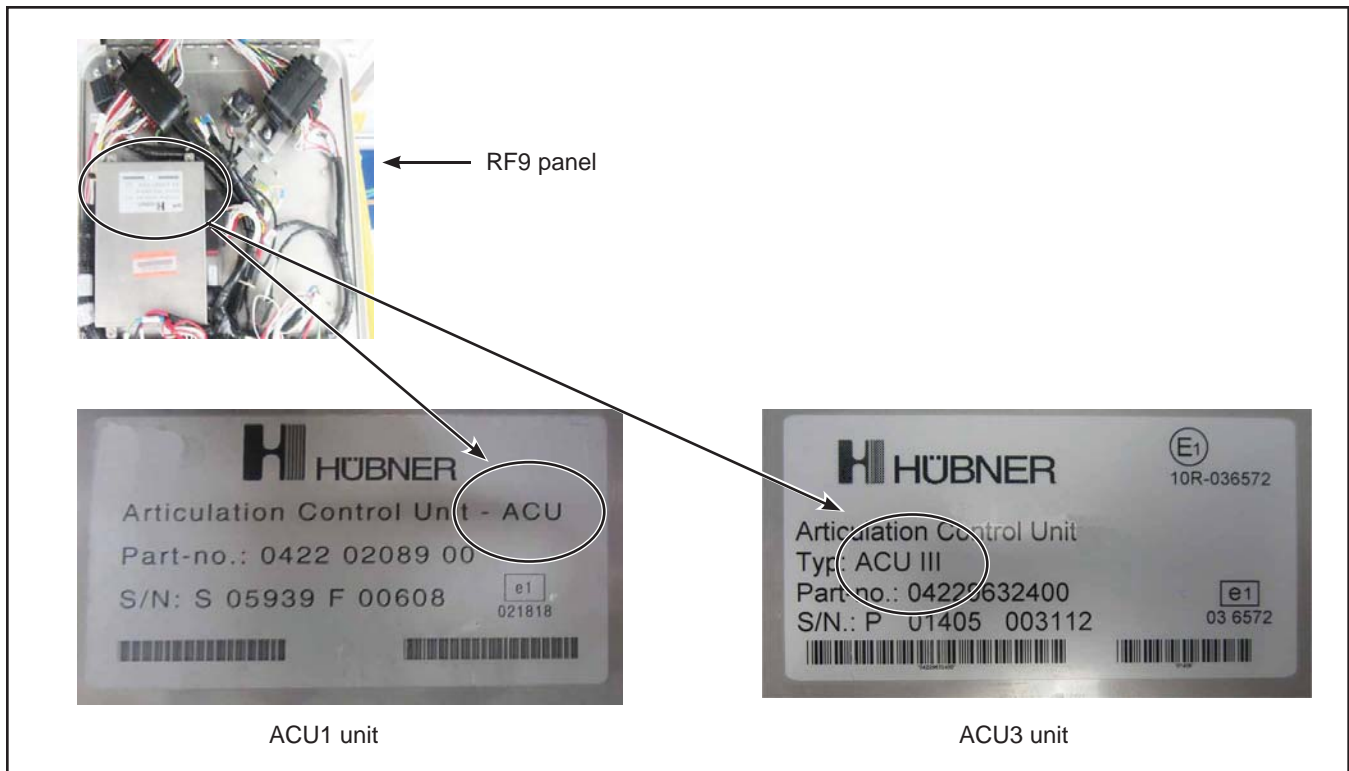


Figure 1 - Location and Identification of the ACU in the RF9 Panel

**NOTE**

A connexion cable kit is not supplied for this procedure.

- 1.3. Choose the cable kit corresponding to the installed ACU. See Figure 2.



Figure 2 - Cable Connection Kits

- 1.4. Identify the software part number for your vehicle. See Client List in page 2. Save the software in your laptop.
- 1.5. Locate the 9-pin ACU connector. See Figure 3.



Figure 3 - RF9 Panel ACU 9-pin Connector Location

- 1.6. Connect one end of the ACU cable kit to the 9-pin connector in the RF9 panel. See Figures 2 and 3.
- 1.7. Connect the other end of the cable kit to the portable computer.
- 1.8. Set the master control switch to the run position. The connected module's red light will illuminate to indicate that the power is active.
- 1.9. On the portable computer, click the icon indicated in Figure 4 to access the Hübner software program.

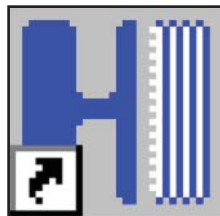


Figure 4 - Hübner software Icon

- 1.10. Click on the **CONNECT** button, see Figure 5, to establish communication with the ACU. The connection module's green light will illuminate to indicate that it is connected.



Figure 5 - Hübner Software Interface

- 1.11. Download the program into the ACU.
1.11.1. Select FLash Eprom. See Figure 6.

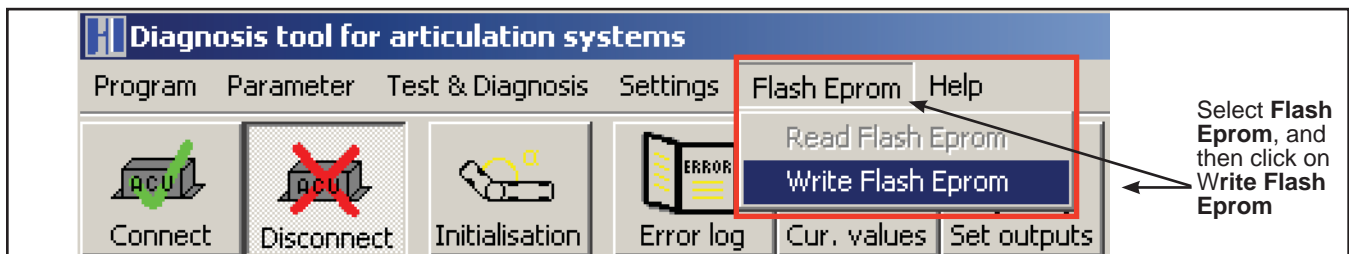


Figure 6 - Steps to Download

- 1.11.2. Select Write FLash Epron from the dropdown menu. See Figure 6.

- 1.11.3. In the browser, select the new ACU corresponding program update. This is the program previously saved in the portable computer. See Figure 7.

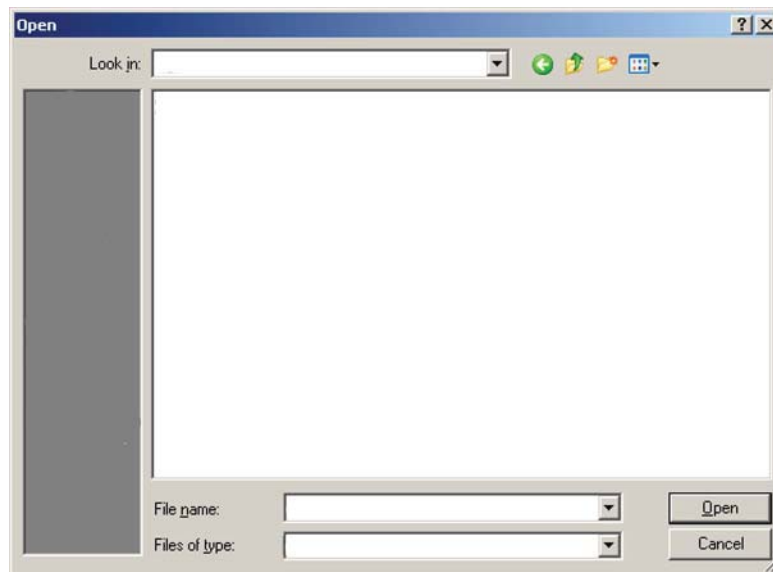


Figure 7 - File Selection

- 1.11.4. Once the download has finished, three confirmation windows will appear.
1.11.5. Click on yes, each time, to confirm the process.
1.11.6. When complete, press the disconnect icon. See Figure 8.

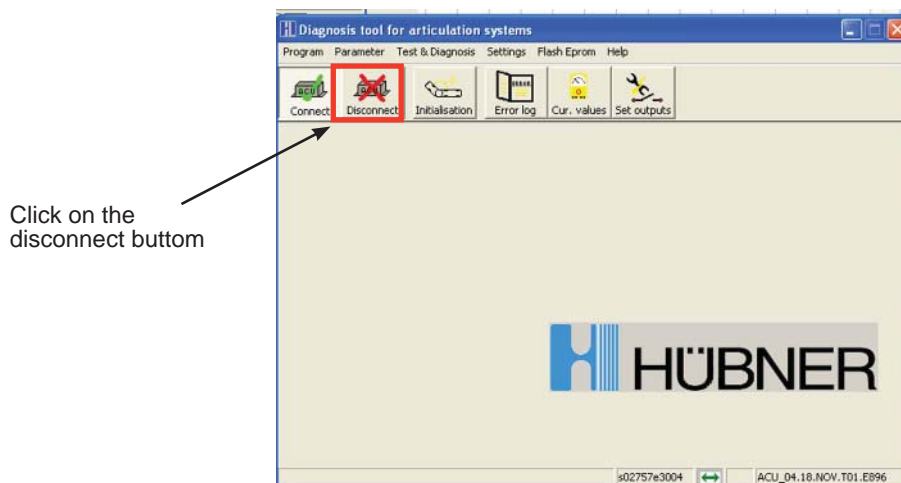


Figure 8 - Hübner Software Display

- 1.12. Disconnect the 9-pin connector from the RF9 panel plug.
1.13. Close the RF9 panel door.
1.14. Set the master control switch to the **STOP POSITION**.

