

REFERENCE:	Nova Bus Manuals
SECTION:	16: 24-Volt Electrical System
RS N°:	MQR 7621-2836
EFFECTIVE IN PROD.:	LF83 (2024MA)
TC RECALL N°:	2024-500
NHTSA RECALL N°:	24V648

APPLICATION DEADLINES: N/A CLAIM
REFERENCE NUMBER: SR5636

SUBJECT:	ACTIA Firmware
JUSTIFICATION:	Affected vehicles may have been manufactured with a defective firmware in the speedometer and instrument cluster. The defective firmware could cause the speedometer to stop displaying vehicle speed and wrongful or missing warning telltale lamp activation. In some cases, it could also lead to a loss of motive power. A loss of speed indication and loss of motive power could lead to a crash. Additionally, telltales failing to display a warning signal is an FMVSS101 regulatory non-compliance.

LEVEL	DESCRIPTION	DIRECT CHARGES		TIME
		LABOUR	MATERIAL	
1	Validate the software version installed in the speedometer. If the software version is equal to 122891 program the speedometer. If the software version is different than 122891, the speedometer doesn't need to be programmed.	Nova Bus	No part	0.34h
2	-	-	-	-

MATERIAL REQUIRED PER VEHICLE

QTY	PART N°	REV.	DESCRIPTION
LEVEL 1			
-	-	-	-
LEVEL 2			
-	-	-	-

DISPOSAL OF PARTS

REMOVED PARTS ARE:	DISCARDED	RETAINED
	-	-

REVISION HISTORY

REV.	DATE	CHANGE DESCRIPTION	WRITTEN BY
NR	2024DE18	Initial release	Luc Carignan

APPROVED BY:

NQF705003 VERSION 5

Danna Dupuis Digitally signed by Danna Dupuis
 Date: 2024.12.20 08:27:20 -05'00'

IMPORTANT: CERTAIN ORDERS MAY NOT INCLUDE ALL UNITS						
CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
Burlington Ontario	LF81	7-2401	7-2401			1
Burlington Ontario	LF81	7-2402	7-2402			1
Burlington Ontario	LF81	7-2403	7-2403			1
Burlington Ontario	LF81	7-2404	7-2404			1
Burlington Ontario	LF81	7-2406	7-2406			1
Burlington Ontario	LF81	7-2407	7-2407			1
Burlington Ontario	LF81	7-2408	7-2408			1
Calgary Transit Alberta	LF66	8522	8522			1
Calgary Transit Alberta	LF66	8523	8523			1
Calgary Transit Alberta	LF66	8524	8524			1
Calgary Transit Alberta	LF66	8525	8525			1
Calgary Transit Alberta	LF66	8526	8526			1
Calgary Transit Alberta	LF66	8527	8527			1
Calgary Transit Alberta	LF66	8528	8528			1
Calgary Transit Alberta	LF66	8529	8529			1
Calgary Transit Alberta	LF66	8530	8530			1
Calgary Transit Alberta	LF66	8531	8531			1
Calgary Transit Alberta	LF66	8532	8532			1
Calgary Transit Alberta	LF66	8533	8533			1
Calgary Transit Alberta	LF66	8534	8534			1
Calgary Transit Alberta	LF66	8535	8535			1
Calgary Transit Alberta	LF66	8536	8536			1
Calgary Transit Alberta	LF66	8537	8537			1
Calgary Transit Alberta	LF66	8538	8538			1
Calgary Transit Alberta	LF66	8539	8539			1
Calgary Transit Alberta	LF66	8540	8540			1
Calgary Transit Alberta	LF66	8541	8541			1
Calgary Transit Alberta	LF66	8542	8542			1
Calgary Transit Alberta	LF66	8543	8543			1
Calgary Transit Alberta	LF66	8544	8544			1
Calgary Transit Alberta	LF66	8545	8545			1
Calgary Transit Alberta	LF66	8546	8546			1
Calgary Transit Alberta	LF66	8547	8547			1
Calgary Transit Alberta	LF66	8548	8548			1
Calgary Transit Alberta	LF66	8549	8549			1
Calgary Transit Alberta	LF66	8550	8550			1
Calgary Transit Alberta	LF66	8551	8551			1
Calgary Transit Alberta	LF66	8552	8552			1
Calgary Transit Alberta	LF66	8554	8554			1
Calgary Transit Alberta	LF66	8555	8555			1
Calgary Transit Alberta	LF66	8556	8556			1
Calgary Transit Alberta	LF66	8557	8557			1
Calgary Transit Alberta	LF66	8558	8558			1

IMPORTANT: CERTAIN ORDERS MAY NOT INCLUDE ALL UNITS						
CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
Calgary Transit Alberta	LF66	8559	8559			1
Calgary Transit Alberta	LF66	8560	8560			1
Calgary Transit Alberta	LF66	8561	8561			1
Calgary Transit Alberta	LF66	8562	8562			1
Calgary Transit Alberta	LF66	8563	8563			1
Calgary Transit Alberta	LF66	8564	8564			1
Calgary Transit Alberta	LF66	8565	8565			1
Calgary Transit Alberta	LF66	8566	8566			1
Calgary Transit Alberta	LF66	8567	8567			1
Calgary Transit Alberta	LF66	8568	8568			1
Calgary Transit Alberta	LF66	8569	8569			1
Calgary Transit Alberta	LF66	8570	8570			1
Calgary Transit Alberta	LF66	8572	8572			1
Calgary Transit Alberta	LF66	8573	8573			1
Calgary Transit Alberta	LF66	8574	8574			1
Calgary Transit Alberta	LF66	8575	8575			1
Calgary Transit Alberta	LF66	8576	8576			1
Calgary Transit Alberta	LF66	8578	8578			1
Calgary Transit Alberta	LF66	8579	8579			1
Calgary Transit Alberta	LF66	8580	8580			1
Calgary Transit Alberta	LF66	8582	8582			1
Calgary Transit Alberta	LF66	8583	8583			1
Calgary Transit Alberta	LF66	8584	8584			1
Calgary Transit Alberta	LF66	8589	8589			1
Calgary Transit Alberta	LF66	8594	8594			1
Capital Area Transportation Authority Michigan - CATA	LF62	738	738			1
Capital Area Transportation Authority Michigan - CATA	LF62	739	739			1
Capital Area Transportation Authority Michigan - CATA	LF62	740	740			1
Capital Area Transportation Authority Michigan - CATA	LF62	741	741			1
Capital Area Transportation Authority Michigan - CATA	LF62	742	742			1
Capital Area Transportation Authority Michigan - CATA	LF62	743	743			1
Capital Area Transportation Authority Michigan - CATA	LF62	744	744			1
Capital Area Transportation Authority Michigan - CATA	LF62	745	745			1
Capital Area Transportation Authority Michigan - CATA	LF63	6021	6021			1
Chicago Transit Authority - CTA	LF52	8650	8650			1
Chicago Transit Authority - CTA	LF52	8651	8651			1
Chicago Transit Authority - CTA	LF52	8652	8652			1

IMPORTANT: CERTAIN ORDERS MAY NOT INCLUDE ALL UNITS						
CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
Chicago Transit Authority - CTA	LF52	8653	8653			1
Chicago Transit Authority - CTA	LF52	8654	8654			1
Chicago Transit Authority - CTA	LF52	8655	8655			1
Chicago Transit Authority - CTA	LF52	8656	8656			1
Chicago Transit Authority - CTA	LF52	8657	8657			1
Chicago Transit Authority - CTA	LF52	8658	8658			1
Chicago Transit Authority - CTA	LF52	8659	8659			1
Chicago Transit Authority - CTA	LF52	8660	8660			1
Chicago Transit Authority - CTA	LF52	8661	8661			1
Chicago Transit Authority - CTA	LF52	8662	8662			1
Chicago Transit Authority - CTA	LF52	8663	8663			1
Chicago Transit Authority - CTA	LF52	8664	8664			1
Chicago Transit Authority - CTA	LF52	8665	8665			1
Chicago Transit Authority - CTA	LF52	8666	8666			1
Chicago Transit Authority - CTA	LF52	8667	8667			1
Chicago Transit Authority - CTA	LF52	8668	8668			1
Chicago Transit Authority - CTA	LF52	8669	8669			1
Chicago Transit Authority - CTA	LF52	8670	8670			1
Chicago Transit Authority - CTA	LF52	8671	8671			1
Chicago Transit Authority - CTA	LF52	8672	8672			1
Chicago Transit Authority - CTA	LF52	8673	8673			1
Chicago Transit Authority - CTA	LF52	8674	8674			1
Chicago Transit Authority - CTA	LF52	8675	8675			1
Chicago Transit Authority - CTA	LF52	8676	8676			1
Chicago Transit Authority - CTA	LF52	8677	8677			1
Chicago Transit Authority - CTA	LF52	8678	8678			1
Chicago Transit Authority - CTA	LF52	8679	8679			1
Chicago Transit Authority - CTA	LF52	8680	8680			1
Chicago Transit Authority - CTA	LF52	8681	8681			1
Chicago Transit Authority - CTA	LF52	8682	8682			1
Chicago Transit Authority - CTA	LF52	8683	8683			1
Chicago Transit Authority - CTA	LF52	8684	8684			1
Chicago Transit Authority - CTA	LF52	8685	8685			1
Chicago Transit Authority - CTA	LF52	8686	8686			1
Chicago Transit Authority - CTA	LF52	8687	8687			1
Chicago Transit Authority - CTA	LF52	8688	8688			1
Chicago Transit Authority - CTA	LF52	8689	8689			1
Chicago Transit Authority - CTA	LF52	8690	8690			1
Chicago Transit Authority - CTA	LF52	8691	8691			1
Chicago Transit Authority - CTA	LF52	8692	8692			1
Chicago Transit Authority - CTA	LF52	8693	8693			1
Chicago Transit Authority - CTA	LF52	8694	8694			1
Chicago Transit Authority - CTA	LF52	8695	8695			1

IMPORTANT: CERTAIN ORDERS MAY NOT INCLUDE ALL UNITS						
CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
Chicago Transit Authority - CTA	LF52	8696	8696			1
Chicago Transit Authority - CTA	LF52	8697	8697			1
Chicago Transit Authority - CTA	LF52	8698	8698			1
Chicago Transit Authority - CTA	LF52	8699	8699			1
Chicago Transit Authority - CTA	LF52	8700	8700			1
Chicago Transit Authority - CTA	LF52	8701	8701			1
Chicago Transit Authority - CTA	LF52	8702	8702			1
Chicago Transit Authority - CTA	LF52	8703	8703			1
Chicago Transit Authority - CTA	LF52	8704	8704			1
Chicago Transit Authority - CTA	LF52	8705	8705			1
Chicago Transit Authority - CTA	LF52	8706	8706			1
Chicago Transit Authority - CTA	LF52	8707	8707			1
Chicago Transit Authority - CTA	LF52	8708	8708			1
Chicago Transit Authority - CTA	LF52	8709	8709			1
Chicago Transit Authority - CTA	LF52	8710	8710			1
Chicago Transit Authority - CTA	LF52	8711	8711			1
Chicago Transit Authority - CTA	LF52	8712	8712			1
Chicago Transit Authority - CTA	LF52	8713	8713			1
Chicago Transit Authority - CTA	LF52	8714	8714			1
Chicago Transit Authority - CTA	LF52	8715	8715			1
Chicago Transit Authority - CTA	LF52	8716	8716			1
Chicago Transit Authority - CTA	LF52	8717	8717			1
Chicago Transit Authority - CTA	LF52	8718	8718			1
Chicago Transit Authority - CTA	LF52	8719	8719			1
Chicago Transit Authority - CTA	LF52	8720	8720			1
Chicago Transit Authority - CTA	LF52	8721	8721			1
Chicago Transit Authority - CTA	LF52	8722	8722			1
Chicago Transit Authority - CTA	LF52	8723	8723			1
Chicago Transit Authority - CTA	LF52	8724	8724			1
Chicago Transit Authority - CTA	LF52	8725	8725			1
Chicago Transit Authority - CTA	LF52	8726	8726			1
Chicago Transit Authority - CTA	LF52	8728	8728			1
Chicago Transit Authority - CTA	LF52	8729	8729			1
Chicago Transit Authority - CTA	LF52	8730	8730			1
Chicago Transit Authority - CTA	LF52	8733	8733			1
Chicago Transit Authority - CTA	LF52	8734	8734			1
Chicago Transit Authority - CTA	LF52	8735	8735			1
Chicago Transit Authority - CTA	LF52	8736	8736			1
Chicago Transit Authority - CTA	LF52	8737	8737			1
Chicago Transit Authority - CTA	LF52	8738	8738			1
Chicago Transit Authority - CTA	LF52	8739	8739			1
Chicago Transit Authority - CTA	LF52	8740	8740			1
Chicago Transit Authority - CTA	LF52	8742	8742			1

IMPORTANT: CERTAIN ORDERS MAY NOT INCLUDE ALL UNITS						
CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
Chicago Transit Authority - CTA	LF52	8743	8743			1
Chicago Transit Authority - CTA	LF52	8744	8744			1
Chicago Transit Authority - CTA	LF52	8745	8745			1
Chicago Transit Authority - CTA	LF52	8746	8746			1
Chicago Transit Authority - CTA	LF52	8747	8747			1
Chicago Transit Authority - CTA	LF52	8748	8748			1
Chicago Transit Authority - CTA	LF52	8749	8749			1
CMBC - Translink	LF60	H24101	H24101			1
CMBC - Translink	LF60	H24102	H24102			1
CMBC - Translink	LF60	H24103	H24103			1
CMBC - Translink	LF60	H24104	H24104			1
CMBC - Translink	LF60	H24105	H24105			1
CMBC - Translink	LF60	H24106	H24106			1
CMBC - Translink	LF60	H24107	H24107			1
CMBC - Translink	LF60	H24108	H24108			1
CMBC - Translink	LF60	H24109	H24109			1
CMBC - Translink	LF60	H24110	H24110			1
CMBC - Translink	LF60	H24111	H24111			1
CMBC - Translink	LF60	H24114	H24114			1
CMBC - Translink	LF60	H24115	H24115			1
CMBC - Translink	LF60	H24117	H24117			1
CMBC - Translink	LF60	H24128	H24128			1
CMBC - Translink	LF60	H24141	H24141			1
Durham Region Transit Ontario	LF75	6136	6136			1
Durham Region Transit Ontario	LF75	6137	6137			1
Durham Region Transit Ontario	LF75	6138	6138			1
Durham Region Transit Ontario	LF75	6139	6139			1
Durham Region Transit Ontario	LF75	6140	6140			1
Durham Region Transit Ontario	LF75	6141	6141			1
Durham Region Transit Ontario	LF75	6142	6142			1
Durham Region Transit Ontario	LF75	6143	6143			1
Durham Region Transit Ontario	LF75	6144	6144			1
Durham Region Transit Ontario	LF75	6145	6145			1
Durham Region Transit Ontario	LF75	6146	6146			1
Durham Region Transit Ontario	LF75	6147	6147			1
Durham Region Transit Ontario	LF75	6148	6148			1
Durham Region Transit Ontario	LF75	6149	6149			1
Grand River Transit Ontario - GRT	LF08	22312	22312			1
Grand River Transit Ontario - GRT	LF08	22313	22313			1
Grand River Transit Ontario - GRT	LF08	22314	22314			1
Grand River Transit Ontario - GRT	LF08	22315	22315			1
Grand River Transit Ontario - GRT	LF08	22316	22316			1
Grand River Transit Ontario - GRT	LF08	22317	22317			1

IMPORTANT: CERTAIN ORDERS MAY NOT INCLUDE ALL UNITS						
CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
Grand River Transit Ontario - GRT	LF08	22318	22318			1
Moncton New Brunswick (Codiac)	LF67	—	—			1
Moncton New Brunswick (Codiac)	LF67	—	—			1
Moncton New Brunswick (Codiac)	LF67	—	—			1
Moncton New Brunswick (Codiac)	LF67	—	—			1
Moose Jaw Saskatchewan	LF68	20	20			1
Moose Jaw Saskatchewan	LF68	24	24			1
New York City Transit, New York - NYCT	LF51	9105	9105			1
New York City Transit, New York - NYCT	LF51	9109	9109			1
New York City Transit, New York - NYCT	LF51	9110	9110			1
New York City Transit, New York - NYCT	LF51	9111	9111			1
New York City Transit, New York - NYCT	LF51	9112	9112			1
New York City Transit, New York - NYCT	LF51	9114	9114			1
New York City Transit, New York - NYCT	LF51	9115	9115			1
New York City Transit, New York - NYCT	LF51	9117	9117			1
New York City Transit, New York - NYCT	LF51	9118	9118			1
New York City Transit, New York - NYCT	LF51	9125	9125			1
New York City Transit, New York - NYCT	LF51	9126	9126			1
New York City Transit, New York - NYCT	LF51	9127	9127			1
New York City Transit, New York - NYCT	LF51	9129	9129			1
New York City Transit, New York - NYCT	LF51	9131	9131			1
New York City Transit, New York - NYCT	LF51	9132	9132			1
New York City Transit, New York - NYCT	LF51	9133	9133			1
New York City Transit, New York - NYCT	LF51	9134	9134			1
New York City Transit, New York - NYCT	LF51	9135	9135			1
New York City Transit, New York - NYCT	LF51	9136	9136			1
New York City Transit, New York - NYCT	LF51	9137	9137			1
New York City Transit, New York - NYCT	LF51	9138	9138			1
New York City Transit, New York - NYCT	LF51	9140	9140			1
New York City Transit, New York - NYCT	LF51	9141	9141			1
New York City Transit, New York - NYCT	LF51	9142	9142			1
New York City Transit, New York - NYCT	LF51	9145	9145			1
New York City Transit, New York - NYCT	LF51	9147	9147			1
New York City Transit, New York - NYCT	LF51	9148	9148			1
New York City Transit, New York - NYCT	LF51	9149	9149			1
New York City Transit, New York - NYCT	LF51	9150	9150			1
New York City Transit, New York - NYCT	LF51	9151	9151			1
New York City Transit, New York - NYCT	LF51	9152	9152			1
New York City Transit, New York - NYCT	LF51	9156	9156			1
New York City Transit, New York - NYCT	LF51	9157	9157			1
New York City Transit, New York - NYCT	LF51	9165	9165			1
New York City Transit, New York - NYCT	LF51	9166	9166			1
New York City Transit, New York - NYCT	LF51	9167	9167			1

IMPORTANT: CERTAIN ORDERS MAY NOT INCLUDE ALL UNITS						
CLIENT	ORDER	ROAD NUMBER		VIN (2NVY/4RKY...)		QTY
		FROM	TO	FROM	TO	
New York City Transit, New York - NYCT	LF51	9168	9168			1
New York City Transit, New York - NYCT	LF51	9169	9169			1
New York City Transit, New York - NYCT	LF51	9170	9170			1
New York City Transit, New York - NYCT	LF51	9171	9171			1
New York City Transit, New York - NYCT	LF51	9172	9172			1
New York City Transit, New York - NYCT	LF51	9174	9174			1
New York City Transit, New York - NYCT	LF51	9175	9175			1
New York City Transit, New York - NYCT	LF51	9176	9176			1
New York City Transit, New York - NYCT	LF51	9178	9178			1
New York City Transit, New York - NYCT	LF51	9179	9179			1
New York City Transit, New York - NYCT	LF51	9181	9181			1
New York City Transit, New York - NYCT	LF51	9182	9182			1
New York City Transit, New York - NYCT	LF51	9183	9183			1
New York City Transit, New York - NYCT	LF51	9187	9187			1
New York City Transit, New York - NYCT	LF51	9188	9188			1
New York City Transit, New York - NYCT	LF51	9189	9189			1
New York City Transit, New York - NYCT	LF51	9191	9191			1
New York City Transit, New York - NYCT	LF51	9192	9192			1
New York City Transit, New York - NYCT	LF51	9193	9193			1
New York City Transit, New York - NYCT	LF51	9194	9194			1
New York City Transit, New York - NYCT	LF51	9195	9195			1
New York City Transit, New York - NYCT	LF51	9197	9197			1
New York City Transit, New York - NYCT	LF51	9198	9198			1
New York City Transit, New York - NYCT	LF51	9199	9199			1
New York City Transit, New York - NYCT	LF51	9200	9200			1
New York City Transit, New York - NYCT	LF51	9201	9201			1
New York City Transit, New York - NYCT	LF51	9202	9202			1
New York City Transit, New York - NYCT	LF51	9203	9203			1
New York City Transit, New York - NYCT	LF53	9216	9216			1
New York City Transit, New York - NYCT	LF53	9217	9217			1
New York City Transit, New York - NYCT	LF53	9218	9218			1
New York City Transit, New York - NYCT	LF53	9219	9219			1
New York City Transit, New York - NYCT	LF53	9220	9220			1
New York City Transit, New York - NYCT	LF53	9221	9221			1
New York City Transit, New York - NYCT	LF53	9222	9222			1
New York City Transit, New York - NYCT	LF53	9223	9223			1
New York City Transit, New York - NYCT	LF53	9224	9224			1
New York City Transit, New York - NYCT	LF53	9225	9225			1
Windsor Ontario	LE61	8070	8070			1
Windsor Ontario	LE61	8071	8071			1

**WARNING**

FOLLOW YOUR INTERNAL SAFETY PROCEDURES.

PROCEDURE

- 1.1. Park the vehicle on an even surface with the transmission on neutral.
- 1.2. Apply the parking brake and set the master control switch to the **stop** position.

SOFTWARE VERSION VALIDATION

- 1.3. Set the master control switch to the **run** position.
- 1.4. After completion of the self-test press simultaneously **M** and **T** button on the speedometer to view the software version installed. See Figure 1.
 - a. If the software version of the speedometer is 122891 proceed with the rest of the procedure to install a new software version.
 - b. If the software version of the speedometer is not 122891 no update is required. Return the vehicle in service.

**WARNING**

If the software version shown on the speedometer screen is not 122891, it means it's a previous speedometer generation. The software update should not be performed on these speedometer.

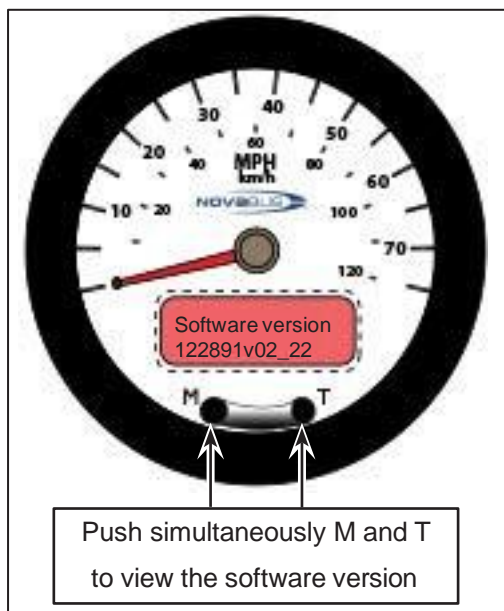


Figure 1 - Speedometer software version

SOFTWARE VERSION UPDATE



NOTE

To perform the following steps you will need a laptop computer on which the configurator *NovaBusConfig_124113v01* is installed. To obtain this version of the configurator or any higher version, contact your customer support manager.



NOTE

Prior to the following steps of the procedure contact your customer support manager to obtain the new software version *122891v02_22* or any higher version. Save the new software program on the laptop computer to be used for the software update.



NOTE

Prior to the following steps of the procedure contact your customer support manager to obtain the required speedometer parameter files *SCP_LXXX_Rev_X.txt* listed in Annex A or any higher version. Save the new software program on the laptop computer to be used.

- 1.5. Take note of the value indicate on the speedometer odometer. See Figure 2.

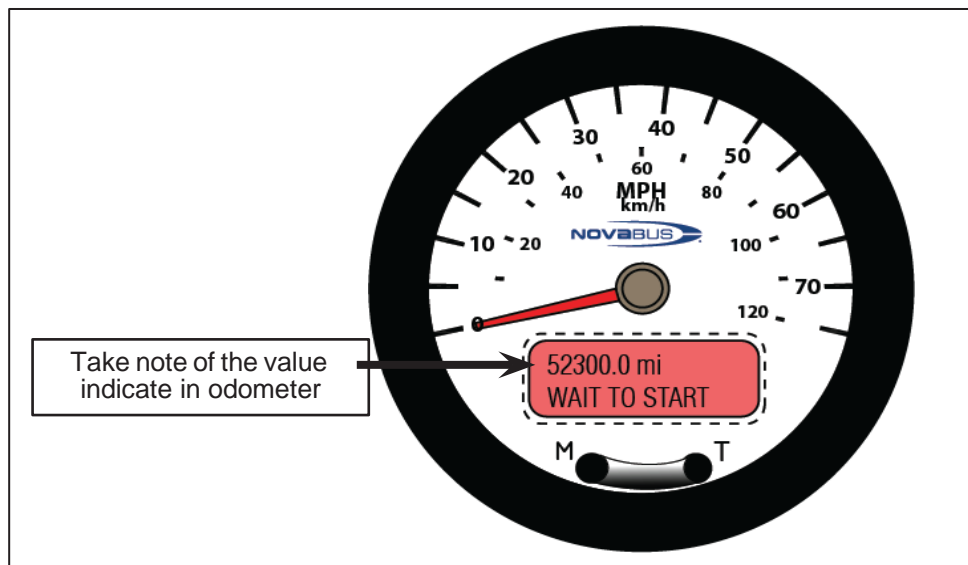


Figure 2 - Speedometer Odometer

- 1.6. Connect your Basic XS Analyzer cable to your laptop USB port.
- 1.7. Connect the CAN bus port of your Basic XS Analyzer to one of the DDR connector of the vehicle. See Figure 3 for the J1939 diagnostic port to use.

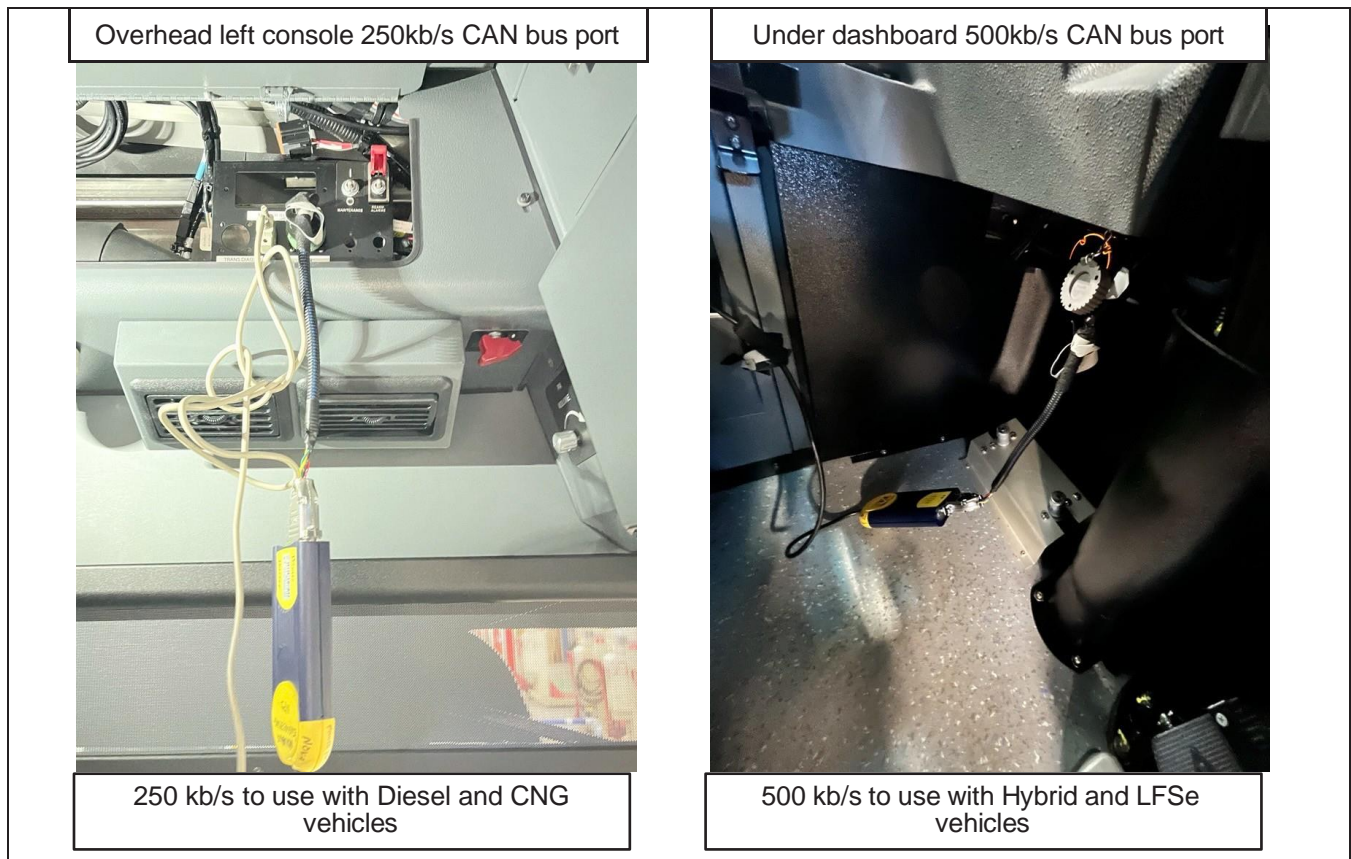


Figure 3 - DDR Port Location

- 1.8. Open the configurator **NovaBusConfig_124113v01** on your laptop and follow these steps to program the speedometer.
- 1.9. Select **Download of Firmware** section and follow these steps;
 - a. Check **Speedo** box. See Figure 4.
 - b. Select **USB** communication port. See Figure 4.
 - c. Select the **CAN speed**. See Figure 4.
 - d. Select in the **File to download** box the new software **122891v02_22** or any higher version. See Figure 4.
 - e. Press the **Download** button. The RL78 Downloader screen will open. See Figure 4.
 - f. The software download is complete when the message **Download OK, the ECU is updated** appear in the RL78 Downloader screen. See Figure 4.

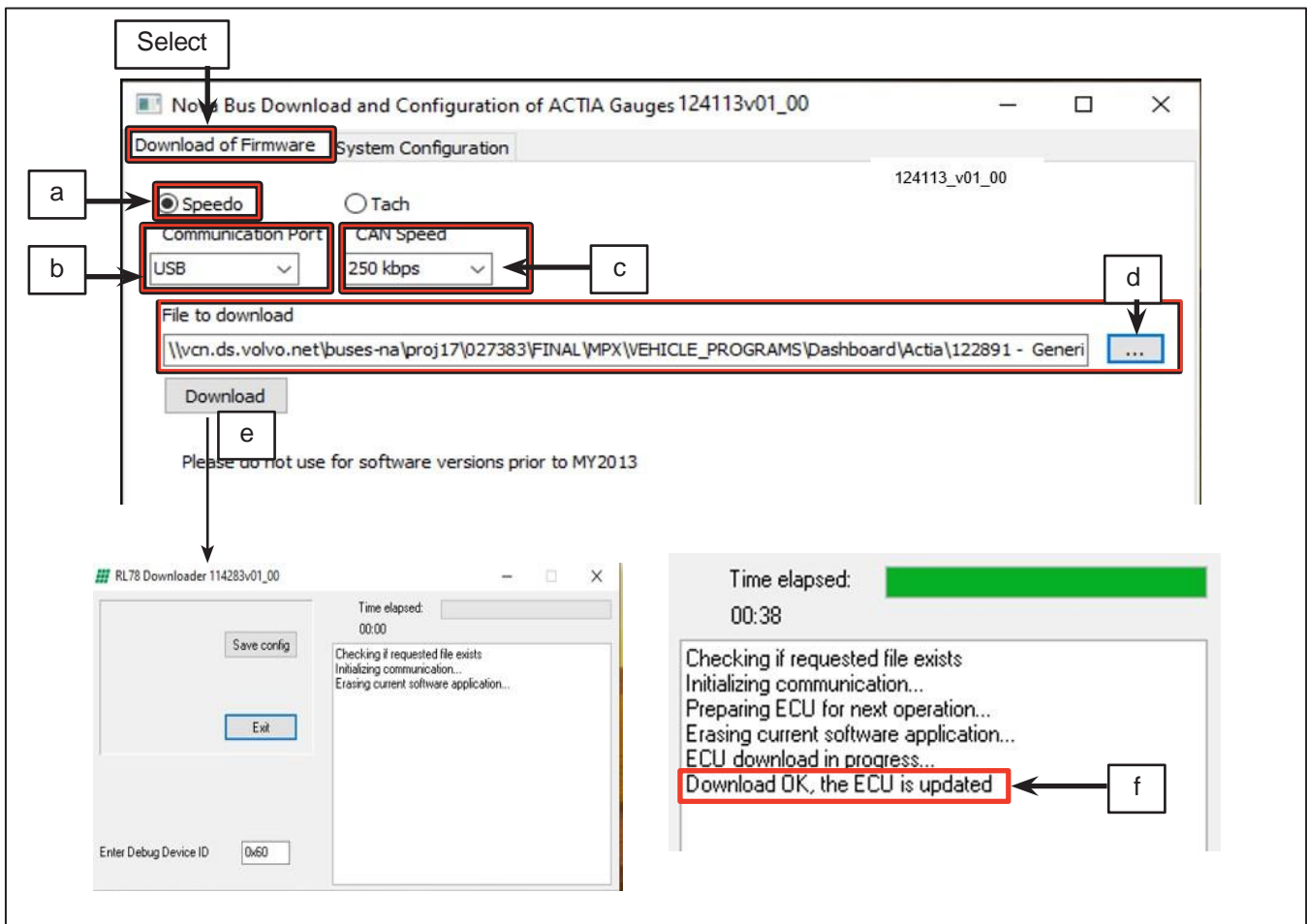


Figure 4 - New Software Download Procedure Step by Step

- 1.10. Select **System Configuration** section and follow these steps;
 - a. Check **Enable Communication**. See Figure 5.
 - b. Check **Enable Speedo**. See Figure 5.
 - c. Select **USB** communication port. See Figure 5.
 - d. Select the **CAN speed**. See Figure 5.
 - e. Press the **RD** button in the **Read Configuration From File** box and select the required speedo parameter files. See Figure 5 and Annex A.
 - f. In **Speedo Odometer** box write the mileage that was on the speedometer odometer at step 1.5 and press on the **WR** button.

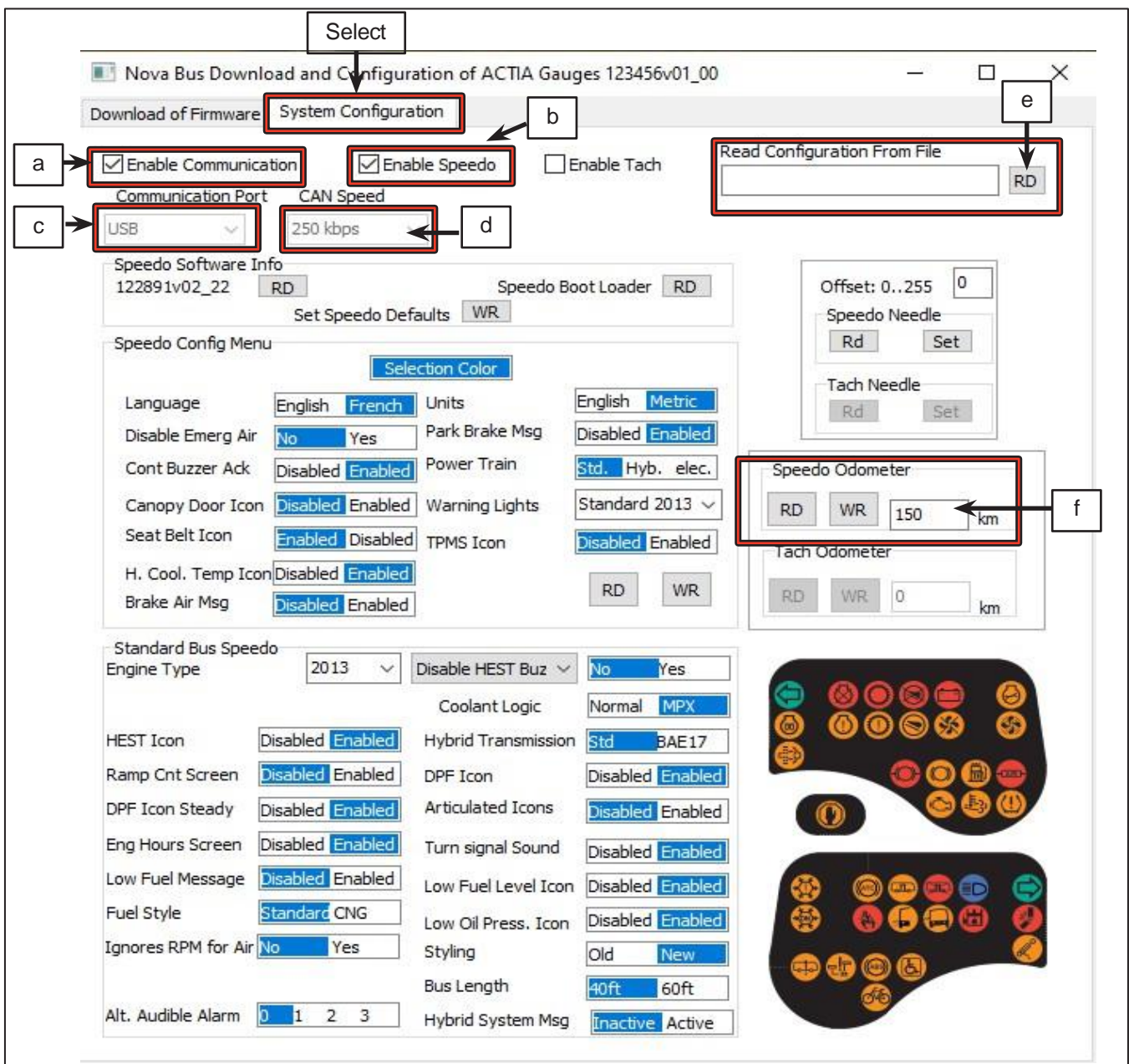


Figure 5 - Speedometer Parameter Download Step by Step

- 1.11. If the speedometer needle is not aligned to the 0 adjust the needle to zero according to the following steps;
- In the **Speedo Needle** section press the **RD** button and note the value displayed in the **Offset** box. See Figure 6.
 - Enter a value in the **Offset** box according to the required adjustment and press **Set** button. Higher value if needle is below 0 or lower value if needle is above 0. See Figure 6.
 - Repeat step 1.11-b until the needle aligns with the zero.

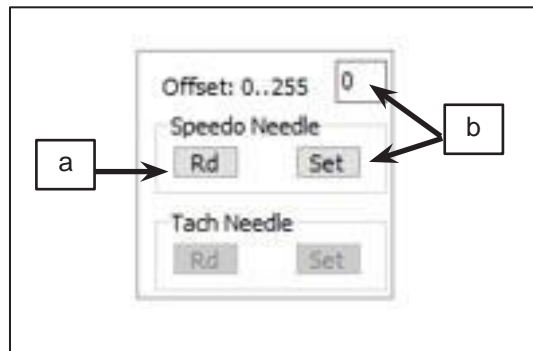


Figure 6 - Speedometer Needle Adjustment Section

- 1.12. Return the vehicle in service



ANNEX A**REQUIRED SPEEDO PARAMETER FILES PER ORDER NUMBER**

* Please contact your customer support manager to obtain the speedo parameter files or any higher revision

ORDER	CLIENT	PROGRAM
LF81	Burlington Ontario	SCP_LF81_Rev_0.txt
LF66	Calgary Transit Alberta	SCP_LF66_Rev_0.txt
LF62	Capital Area Transportation Authority Michigan - CATA	SCP_LF62_Rev_0.txt
LF63	Capital Area Transportation Authority Michigan - CATA	SCP_LF63_Rev_0.txt
LF52	Chicago Transit Authority - CTA	SCP_LF52_Rev_0.txt
LF60	CMBC - Translink	SCP_LF60_Rev_0.txt
LF75	Durham Region Transit Ontario	SCP_LF75_Rev_0.txt
LF08	Grand River Transit Ontario - GRT	SCP_LF08_Rev_0.txt
LF67	Moncton New Brunswick (Codiac)	SCP_LF67_Rev_0.txt
LF68	Moose Jaw Saskatchewan	SCP_LF68_Rev_0.txt
LF51	New York City Transit, New York - NYCT	SCP_LF51_Rev_0.txt
LF53	New York City Transit, New York - NYCT	SCP_LF53_Rev_0.txt
LE61	Windsor Ontario	SCP_LE61_Rev_0.txt