

REFERENCE:	Nova Bus Manuals
SECTION:	16: 24-Volt Electrical System
RS N°:	MQR 7621-877
EFFECTIVE IN PROD.:	N/A

APPLICATION DEADLINE: 2017JN25
CLAIM REFERENCE NUMBER: WB-3512

SUBJECT:	Incompatibility of Actia gauge programs
JUSTIFICATION:	A fault may appear on the Actia gauge if an incorrect program version is used

LEVEL	DESCRIPTION	DIRECT CHARGES		TIME
		LABOUR	MATERIAL	
1	Reprogram the Actia gauges	Nova Bus	Nova Bus	15min
2	–	–	–	–

MATERIAL

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

Contact your customer service representative to obtain the required software and program revision required.

DISPOSAL OF PARTS

REMOVED PARTS ARE:	DISCARDED	RETAINED	
	–	–	

REVISION HISTORY

REV.	DATE	CHANGE DESCRIPTION	WRITTEN BY
NR	2016MA25	Initial release	Marc Rougeau

**CAUTION**

In order to avoid all software incompatibility issues between the speedometer and tachometer install the required tachometer software version and appropriate speedometer software from the table below with the configurator version found in the table below.

CLIENT	LOT	N° VÉHICULE		NIV (2NVY/4RKY...)		QTÉ	S P E E D O P/N	SPEEDO SW	TACH	TACH SW	CONFIG TOOL
		DE	À	DE	À						
Arrow Coach Line - Arkansas	L252	—	—	L82U963000235	L82U963000235	1	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07
BC Transit - BCT - British Columbia	L215	9201	9210	L82U663000001	L82U763000010	10	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07
BC Transit - BCT - British Columbia	L236	9211	9231	L82U063000141	L82U663000161	21	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07
Brampton - Ontario	L209	0601	0621	L82U253000222	L82U853000242	20	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07
Brampton - Ontario	L238	0609	0609	L82U663000094	L82U663000094	1	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07
Brampton - Ontario	L253	0622	0632	L82U463000269	L82U763000279	11	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07
Brampton - Ontario	L284	0633	0638	L82U363000280	L82U263000285	6	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07
Fredericton - New Brunswick	L240	8062	8062	L82U163000181	L82U163000181	1	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07
Fredericton - New Brunswick	L276	8064	8065	L82U463000286	L82U663000287	2	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07
Fredericton - New Brunswick	L281	8063	8063	L82U363000263	L82U363000263	1	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07
Fredericton - New Brunswick	L282	8071	8072	L82UX73000097	L82U173000098	2	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07
Fredericton - New Brunswick	L289	—	—	L82U573000072	L82U573000072	1	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07
Gaylord Opryland - Nashville, Tennessee	L283	—	—	L82V773000034	L82V773000034	1	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07
Grand River Transit - GRT - Ontario	L243	2601	2614	L82U463000188	L82U363000201	14	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07
Guelph - Ontario	L241	189	194	L82U363000182	L82U263000187	6	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07
St. John's - Newfoundland	L242	0753	0756	L82U273000028	L82U273000031	4	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07
Strathcona County Transit - Alberta	L233	924	929	L82V963000101	L82V863000106	6	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07
Strathcona County Transit - Alberta	L303	930	936	L82U073000156	L82U673000162	7	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07
Sudbury - Ontario	L208	—	—	L82U653000191	L82UX53000193	3	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07
Sudbury - Ontario	L250	—	—	L82U063000236	L82U263000240	5	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07
Sudbury - Ontario	L251	—	—	L82U063000241	L82U263000242	2	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07
Sudbury - Ontario	L293	—	—	L82U673000128	L82U673000131	4	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07
Sudbury - Ontario	L294	—	—	L82U873000132	L82UX73000133	2	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07
Thunder Bay - Ontario	L285	—	—	L82U473000046	L82U873000048	3	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07
Timmins - Ontario	L254	254-1	254-1	L82UX73000035	L82UX73000035	1	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07
University of Alabama - Alabama	L295	7001	7001	L82U173000134	L82U173000134	1	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07
University of Alabama - Alabama	L296	7002	7003	L82U373000135	L82U573000136	2	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07
University of Colorado - Colorado	L237	—	—	L82U163000164	L82U363000165	2	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07
Whitehorse - Yukon	L278	—	—	L82U563000264	L82U263000268	4	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07
Windsor - Ontario	L186	555	564	L82U053000181	L82U453000190	10	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07
Woodstock - Ontario (ref. L388)	L209	—	—	L82U153000230	L82U153000230	1	N38412014	118398V01_00	N38510	106499V03_12	113942V02_07

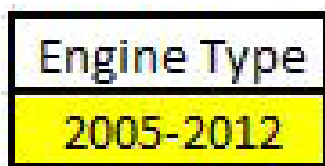
**WARNING**

Follow your internal safety procedures.

**NOTE**

This procedure requires the CAT CAN Analyzer programming and diagnostic tool. Contact Prevost Parts or your after-sales representative to order N43578 (Cable) and N43579 (RS232 connector CAN Analyzer) or N8901881 (CAN Analyzer with USB cable). See Figure 1.

PROCEDURE



TOOLS

- 1.1. Connect the **CAN** analyzer to a computer equipped with the **NOVA BUS SETUP PROGRAM** software (see Figure 1).
- 1.2. Open the left overhead console panel and connect the **CAN** Analyzer cable to the **DDR** connector(see Figure 1).

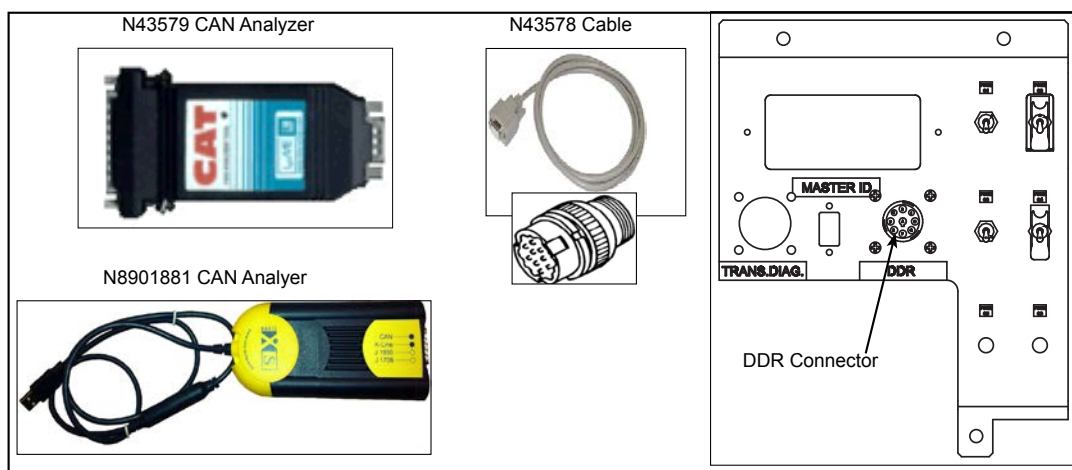


Figure 1 - CAN Analyser, Cable and Location of DDR Connector

- 1.3. Validate that the computer has the latest versions of the NOVA BUS SETUP PROGRAMS installed.
- 1.3.1. To check the version, open the software and check the version number displayed in the title bar. See the table below for the correct software for your engine model.

Cummins Engine	Software VERSION
prior to 2013	113942 version 2_06 or higher

- 1.4. If needed download the latest **ACTIA** program supplied by your customer service representative for the vehicle to the computer connected to the CAN Analyzer. See the Client List for the appropriate program.
- 1.5. Program the **ACTIA** system. For the programming procedure, refer to the **ACTIA GAUGES REPROGRAMMING** heading in section 16 : **24-VOLT ELECTRICAL SYSTEM** in the Nova LFS Maintenance Manual.

FAMILIARISATION

- 2.1. General functions (see Figure 2).

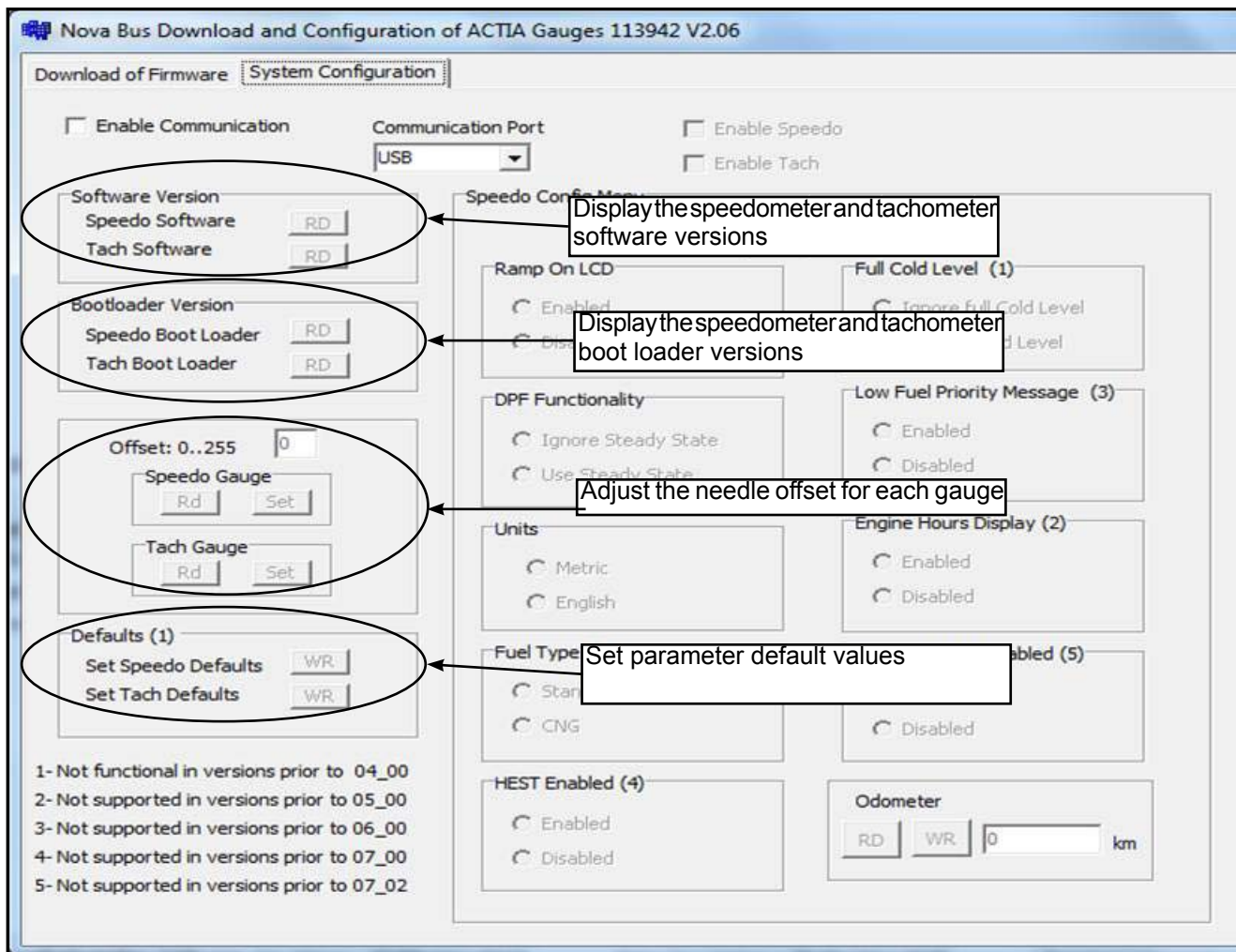


Figure 2 - General Functions

2.2. Speedometer parameter overview (see Figure 3).

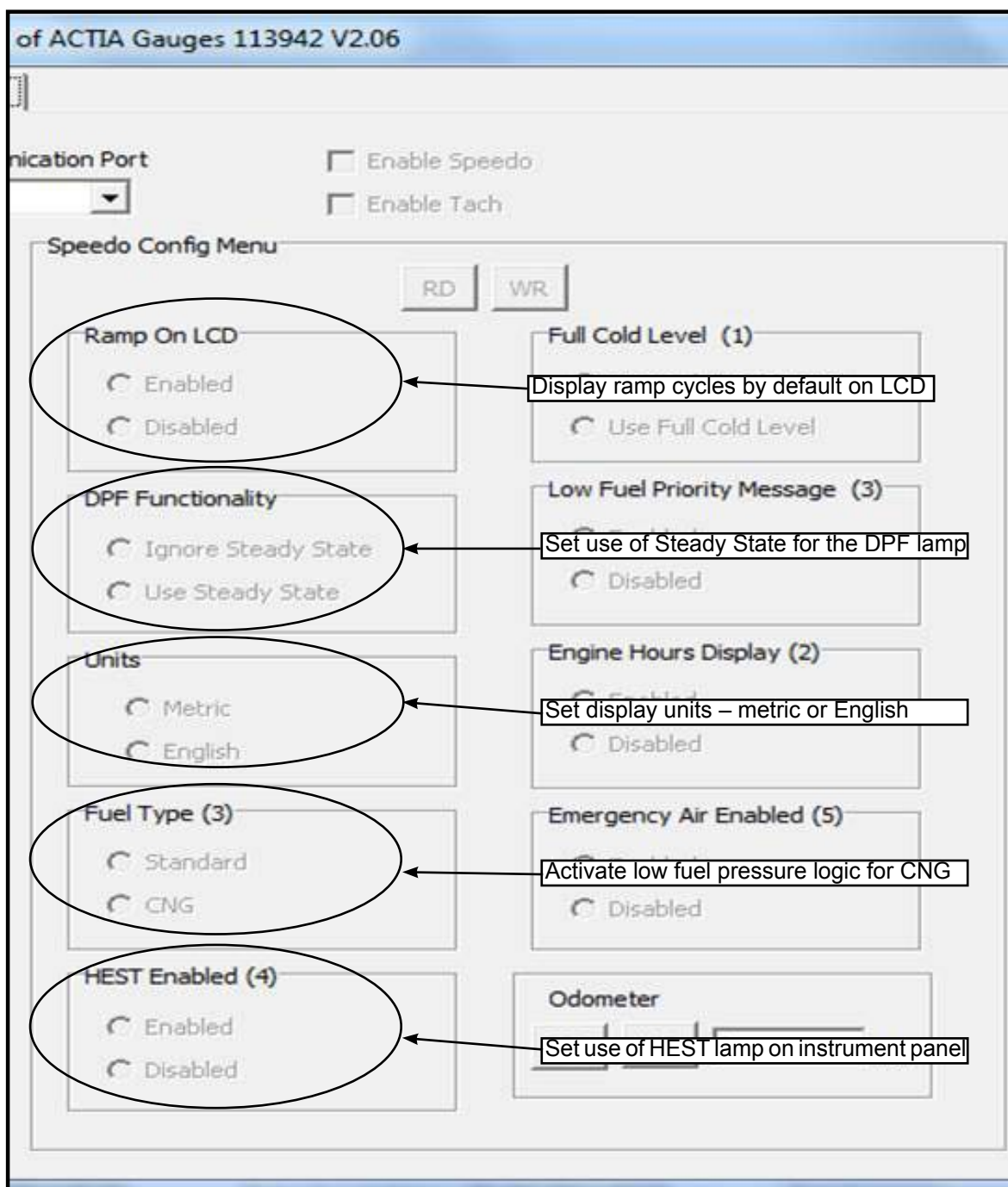


Figure 3 - Speedometer Parameters

2.3. Speedometer parameter overview (see Figure 4).

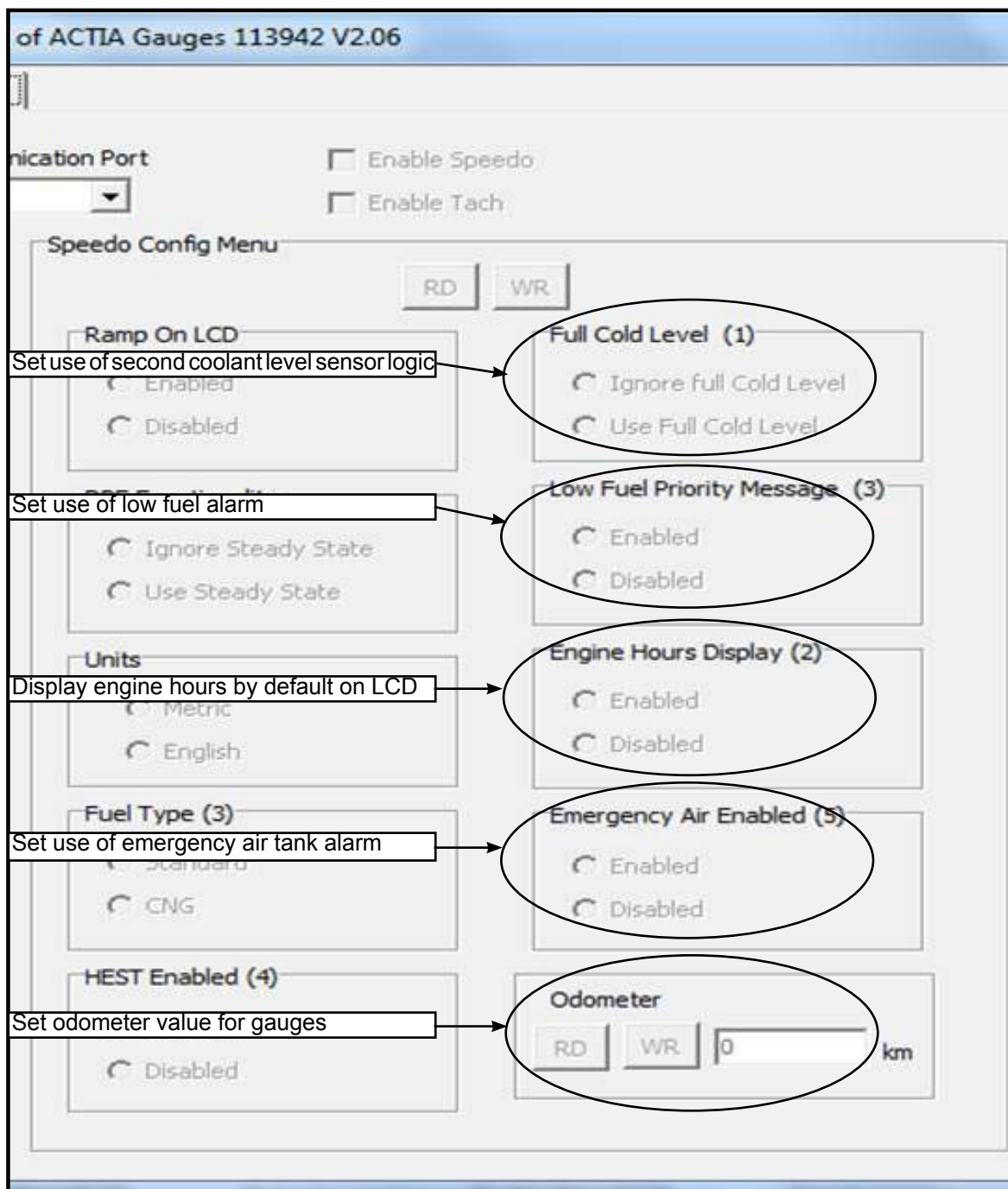


Figure 4 - Speedometer Parameters

2.4. Tachometer parameter overview (see Figure 5).

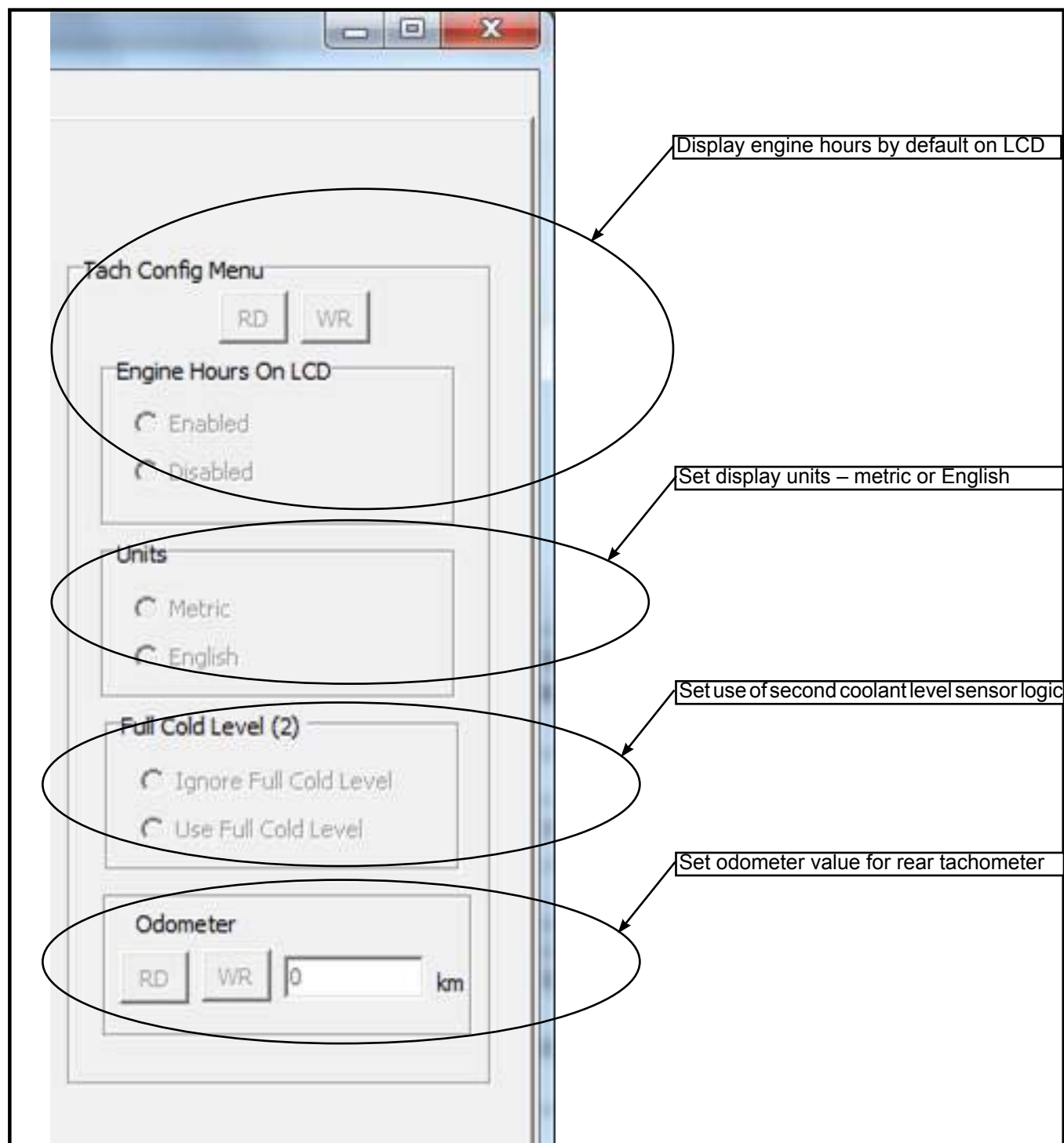


Figure 5 - Tachometer Parameters

SPEEDOMETER PROCEDURE 2005-2012 ENGINES



NOTE

There are two possible settings during this procedure, set the MASTER CONTROL SWITCH to the ON position with the engine start switch, in the engine compartment set to front. Or, set the MASTER CONTROL SWITCH to the OFF position with the engine start switch, in the engine compartment set to rear. Both settings work.

3.1.1 In the System Configuration tab, select the appropriate communication port from the drop-down list (see Figure 6).

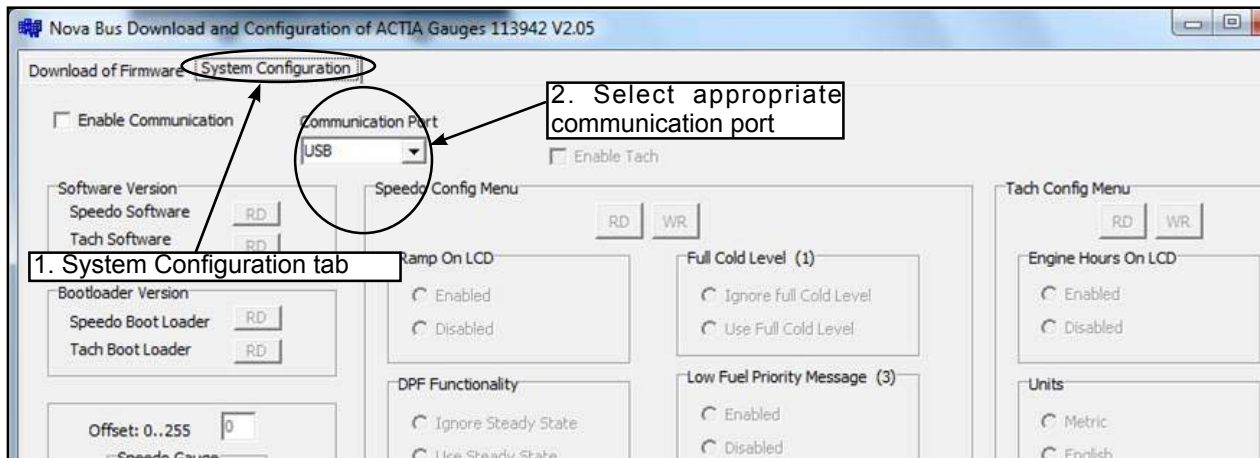


Figure 6 - Select the Appropriate Communication Port

3.1.2 Check the Enable Communication box (see Figure 7).

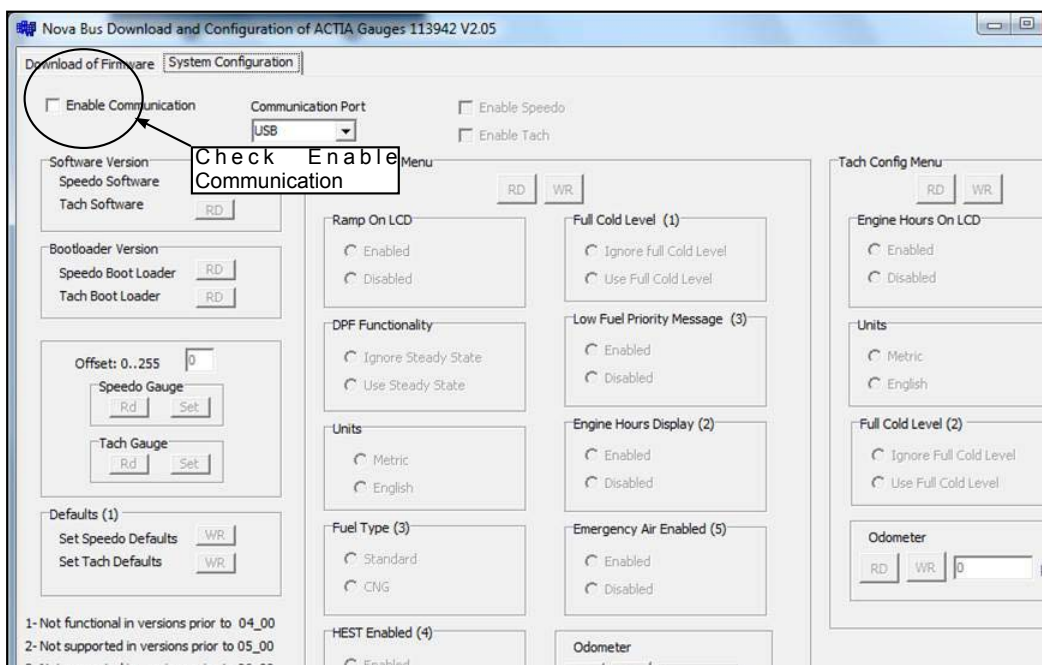


Figure 7 - Enable Communication

3.1.3 Check the Enable Speedo box (see Figure 8).

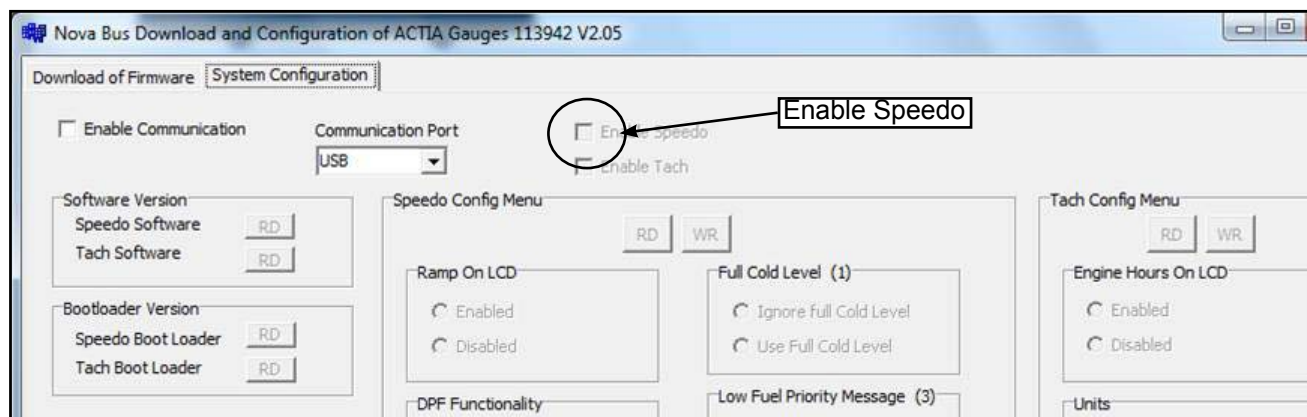


Figure 8 - Enable Speedometer

3.1.4 Click the Read (RD) button in each section as needed to display the configuration of parameters (see Figure 9).

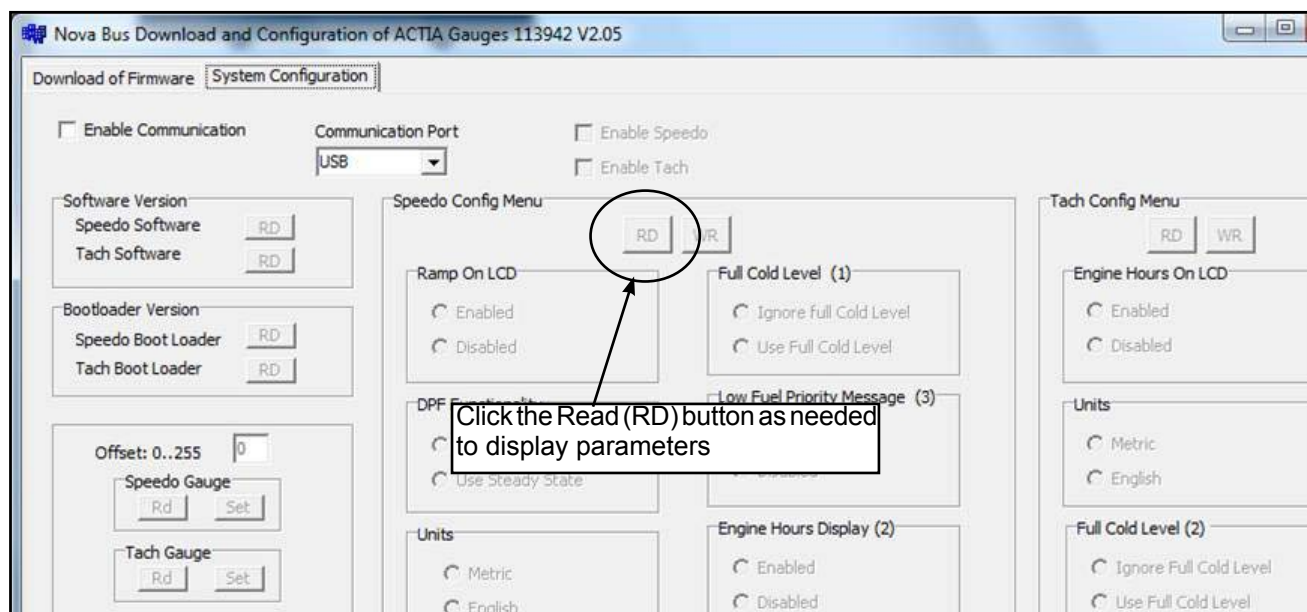


Figure 9 - Click the Read (RD) Button

3.1.5 Note the configuration of the following parameters: Ramp On LCD, DPF Functionality, Units, HEST Enabled, and Emergency Air Enabled. This configuration will be required in step 3.1.15 (see Figure 10).

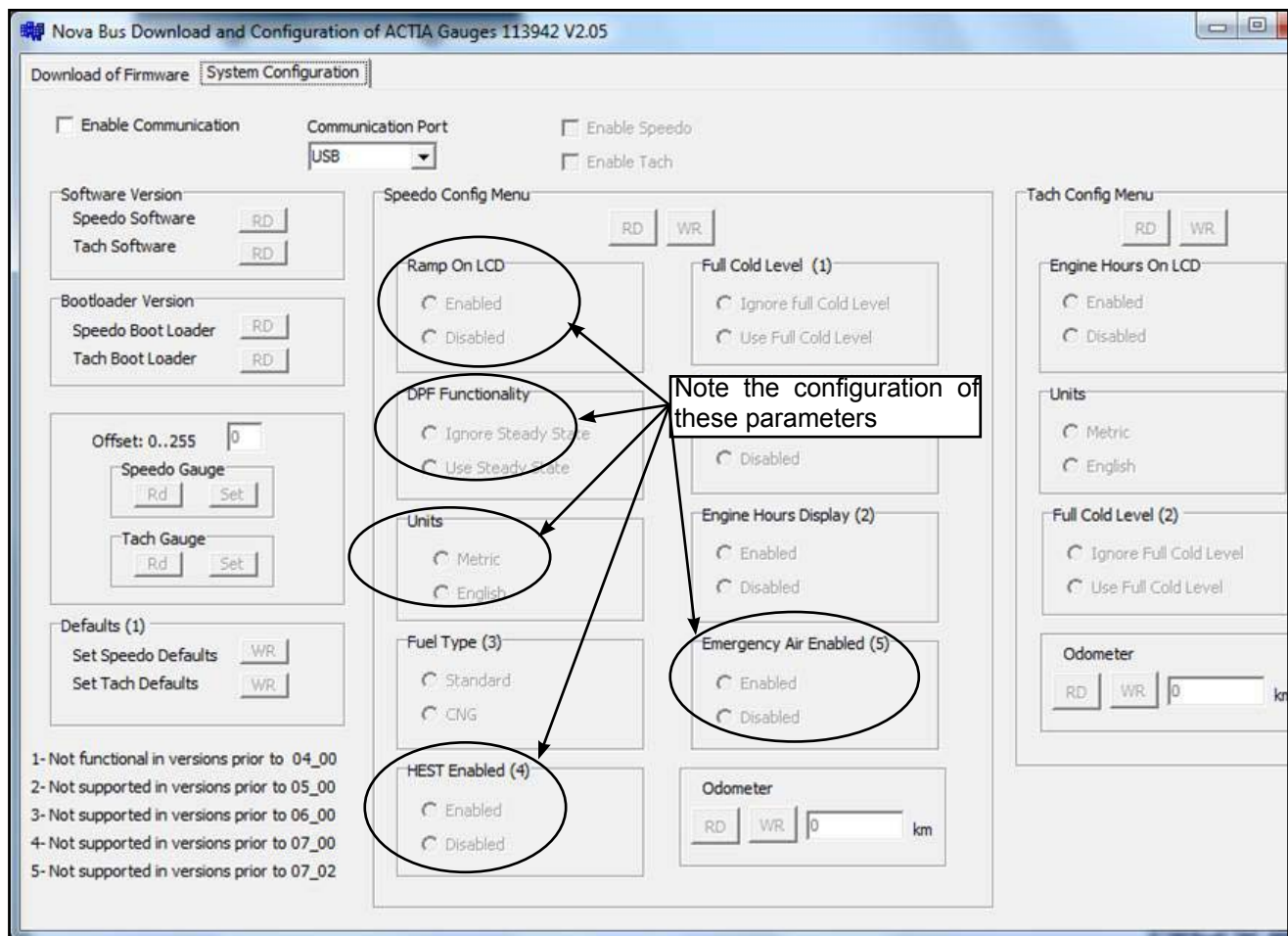


Figure 10 - Note the Configuration

3.1.6 In the Download of Firmware tab, select the appropriate communication port from the drop-down list (see Figure 11).

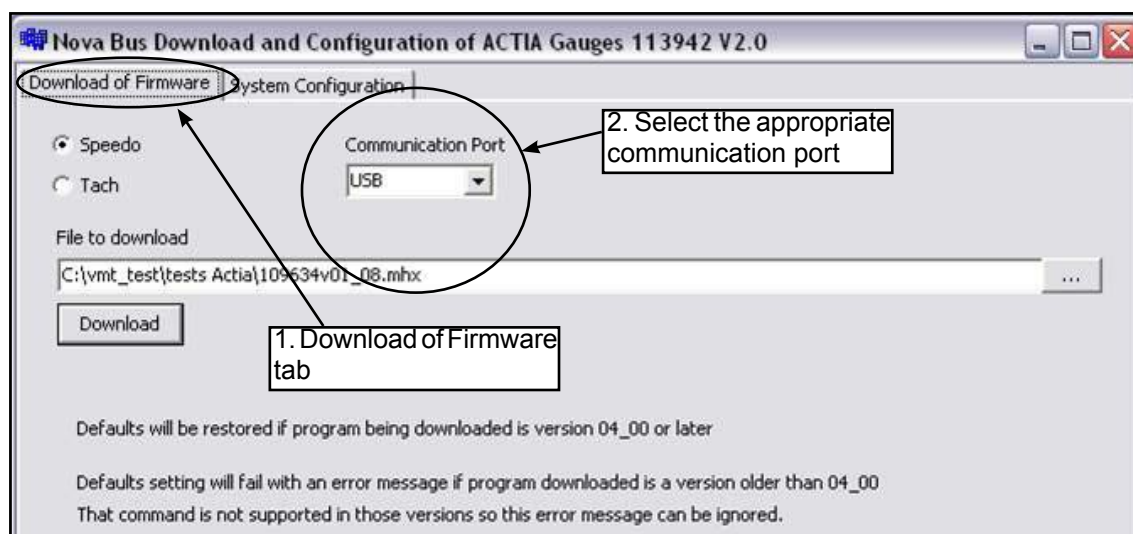


Figure 11 - Select the Appropriate Communication Port

3.1.7 Select the required gauge (see Figure 12).

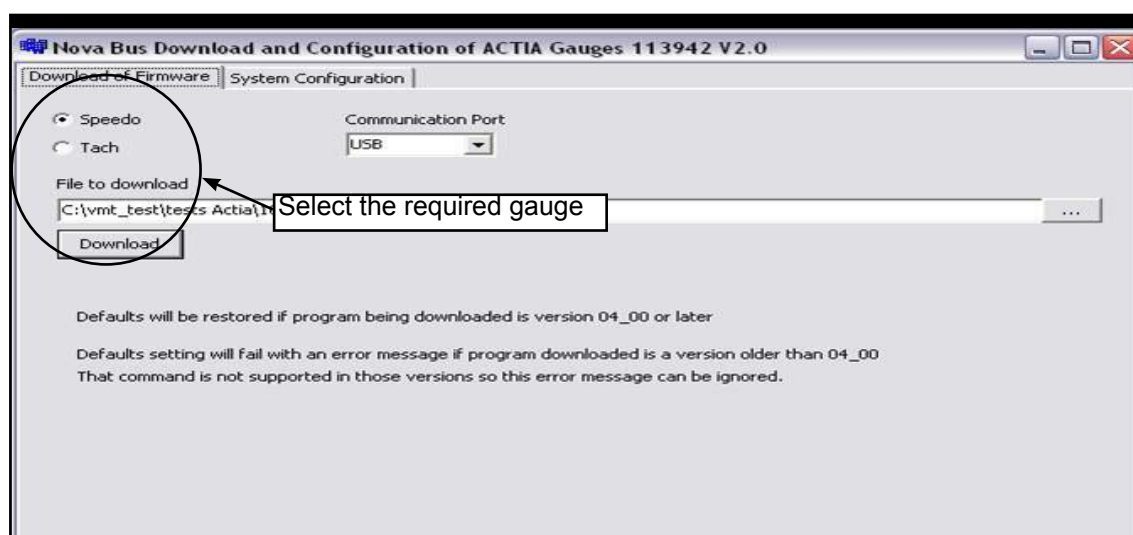


Figure 12 - Select the Required Gauge

3.1.8 Use the Browse button to select the right program for the gauge being reprogrammed (see Figure 13).

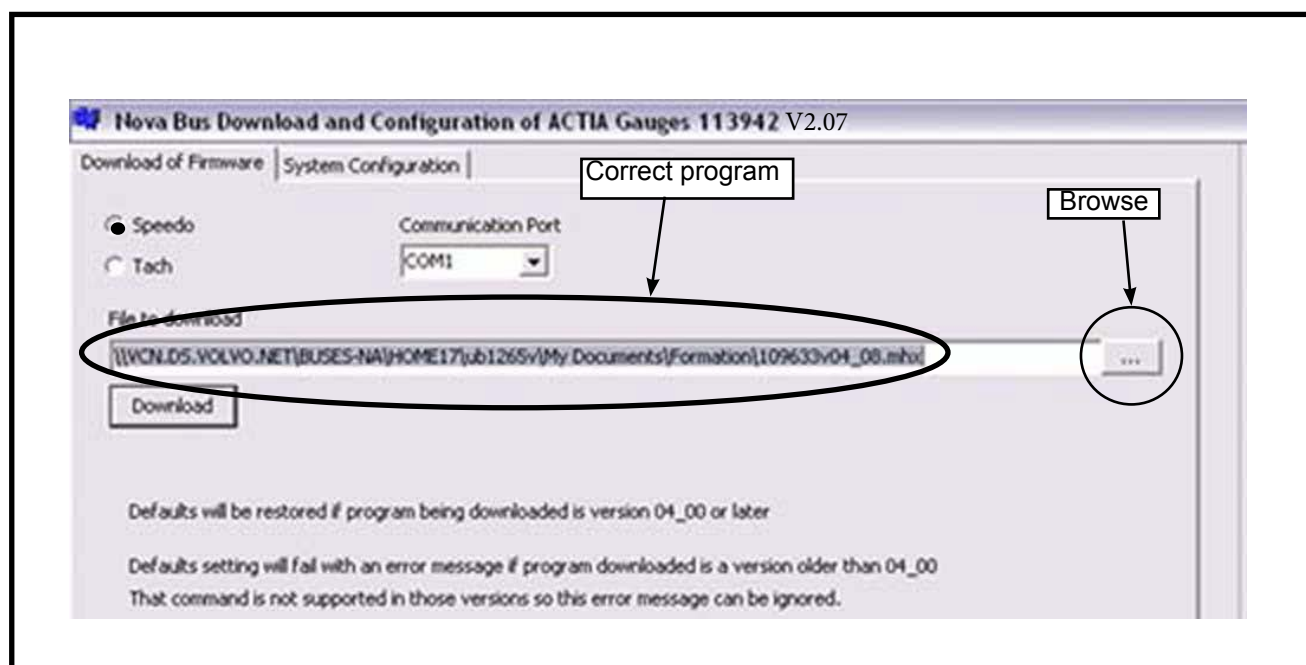


Figure 13 - Select the File to Download

3.1.9 Click the Download button (see Figure 14).

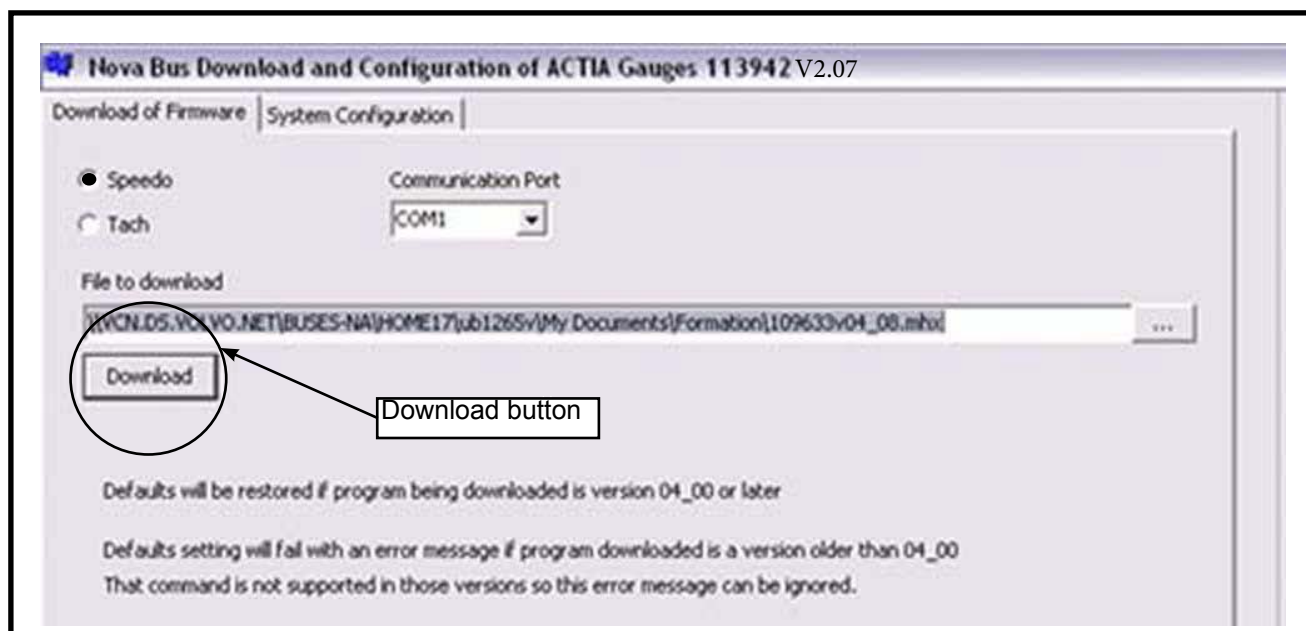


Figure 14 - Download the Program

3.1.10 A download progress window is displayed. A new window opens once the download process is complete (see Figure 15).

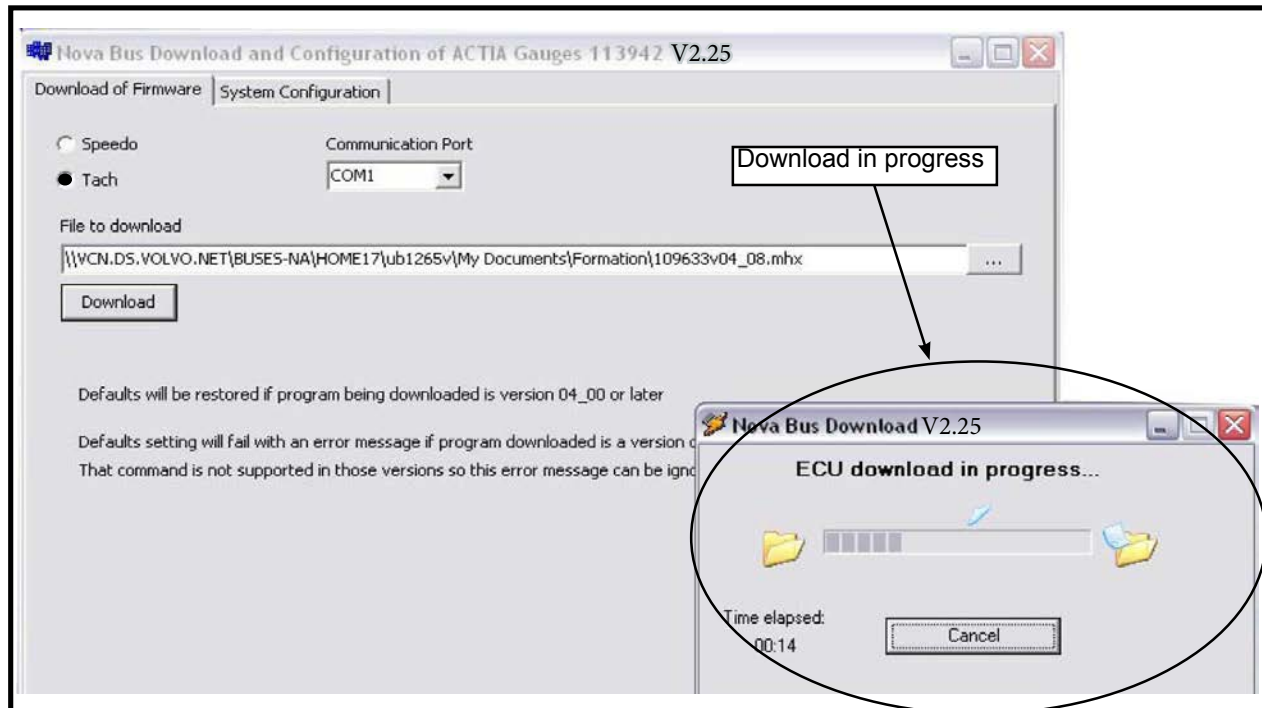


Figure 15 - Program Download

3.1.11 In the System Configuration tab, select the appropriate communication port from the drop-down list (see Figure 16).

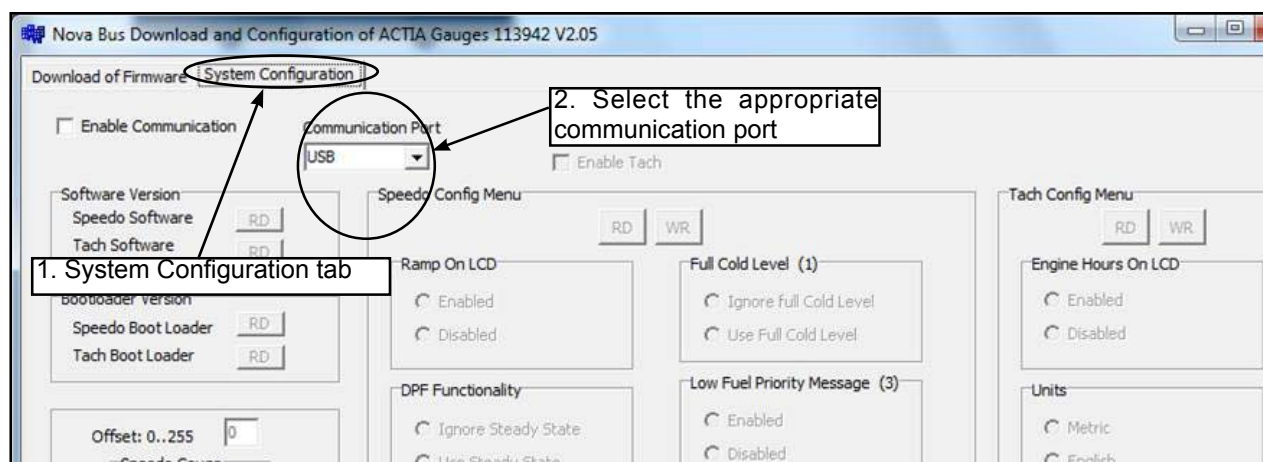


Figure 16 - Select the Appropriate Communication Port

3.1.12 Check the Enable Communication box (see Figure 17).

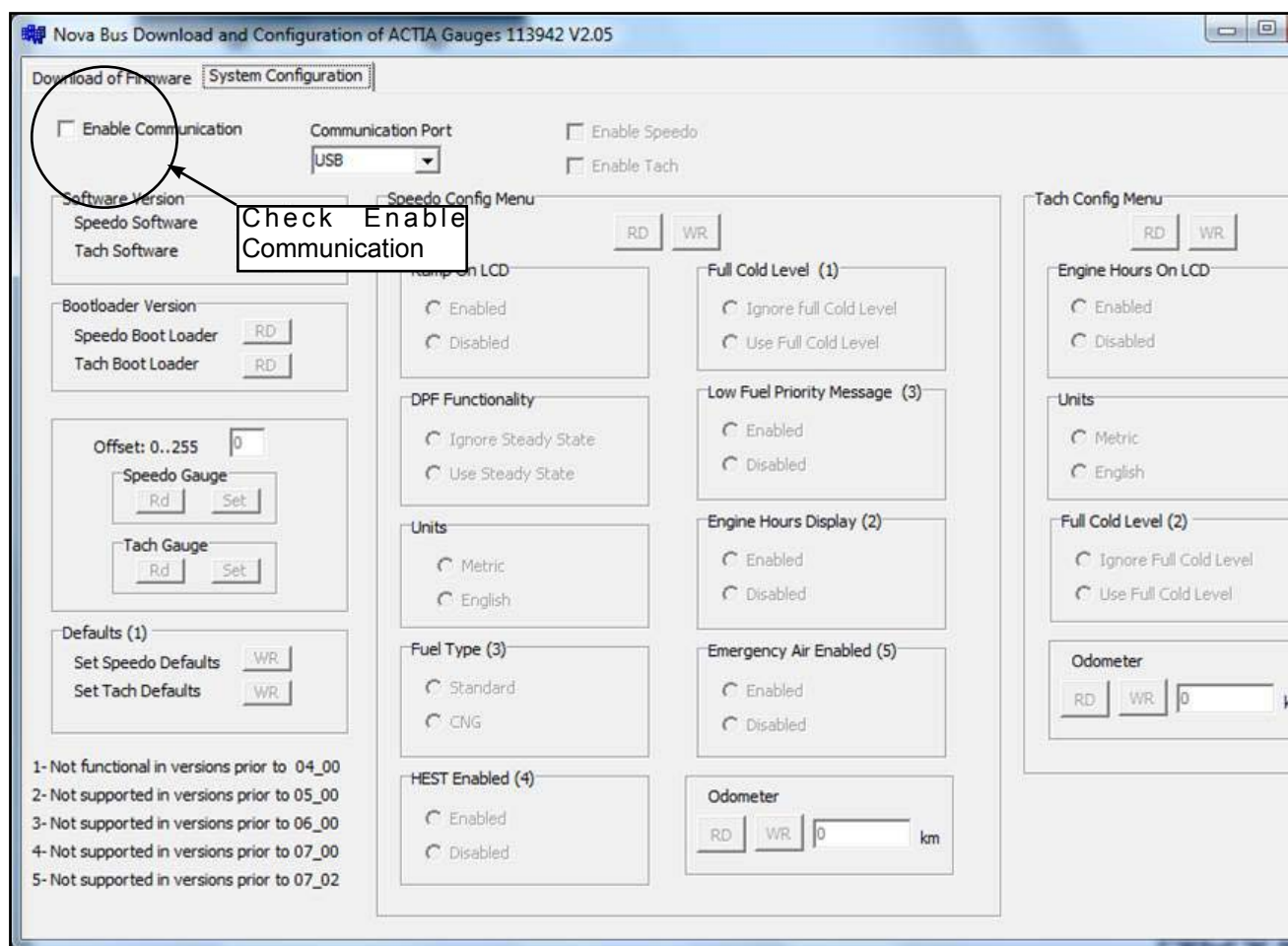


Figure 17 - Enable Communication

3.1.13 Check the Enable Speedo box (see Figure 18).

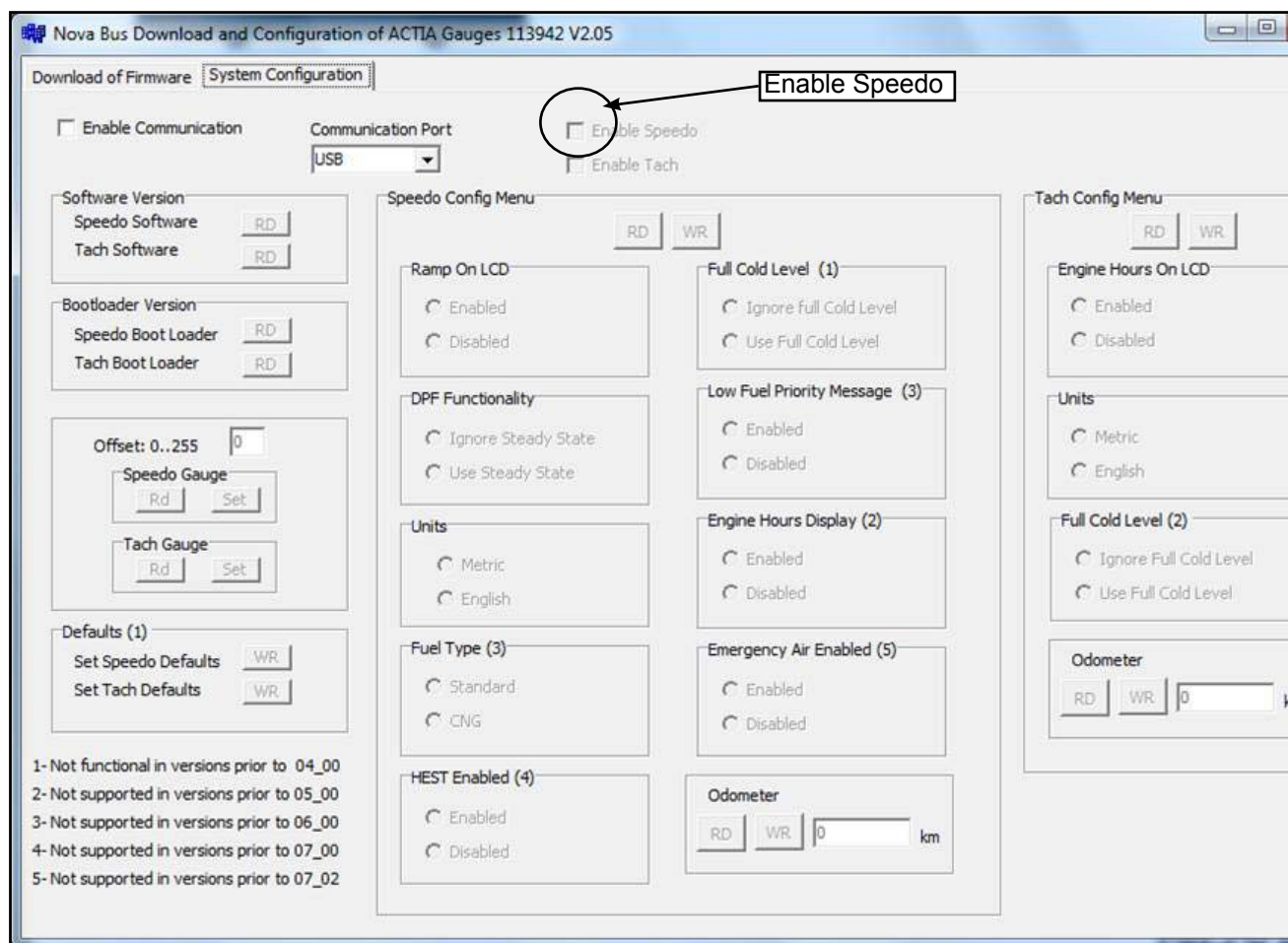


Figure 18 - Enable Speedometer

3.1.14 Click the Read (RD) button in the Speedo Config Menu to display the configuration of parameters (see Figure 19).

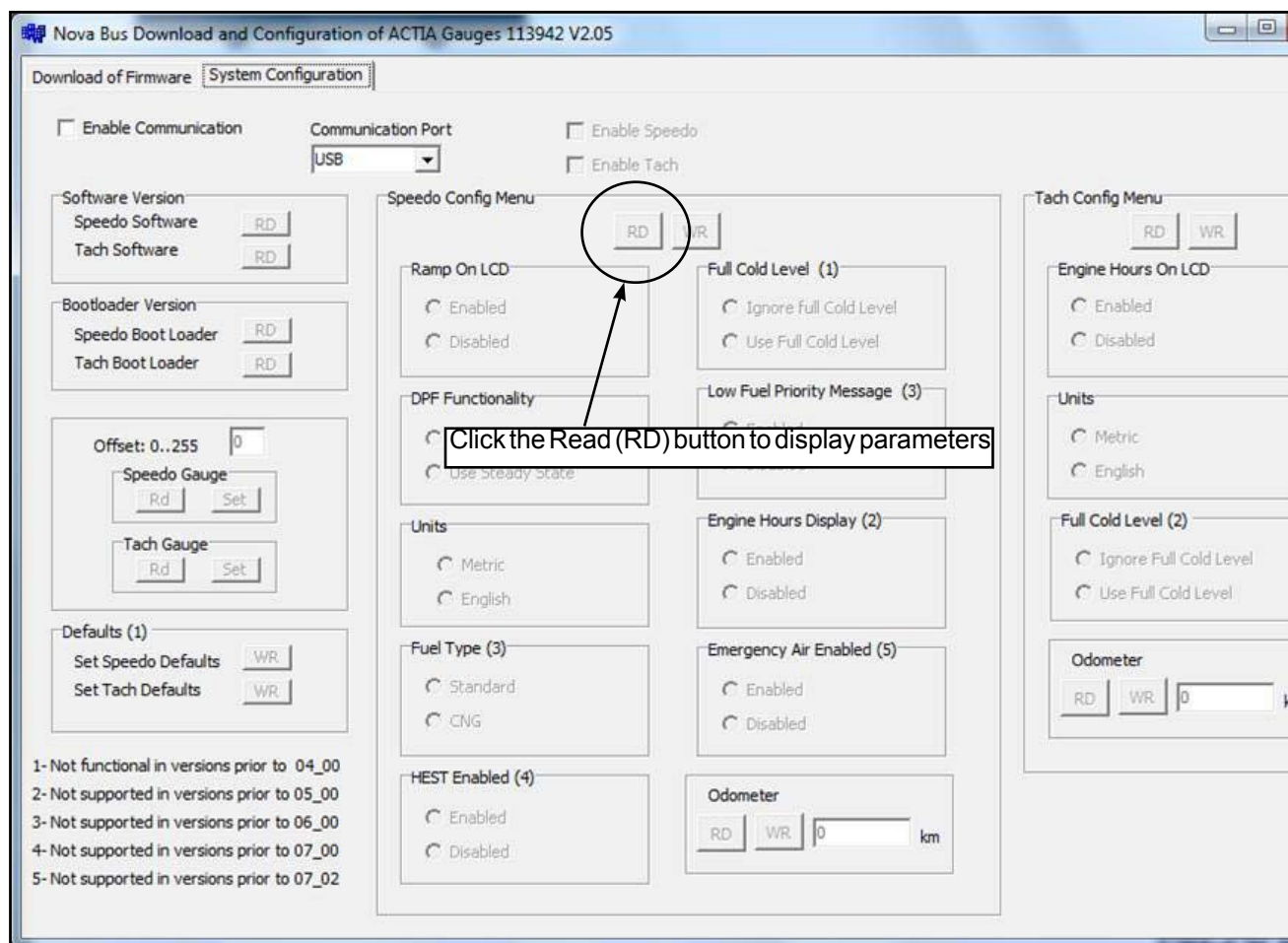


Figure 19 - Click the Read (RD) Button

3.1.15 Check that the software version is correct per the table on page 2. Check whether the Ramp On LCD, DPF Functionality, Units, HEST Enabled, and Emergency Air Enabled parameters are the same as in step 3.1.5. If the configuration remains the same, skip to the next step. If the configuration is different, make the necessary changes then click (WR) to save (see Figure 20).

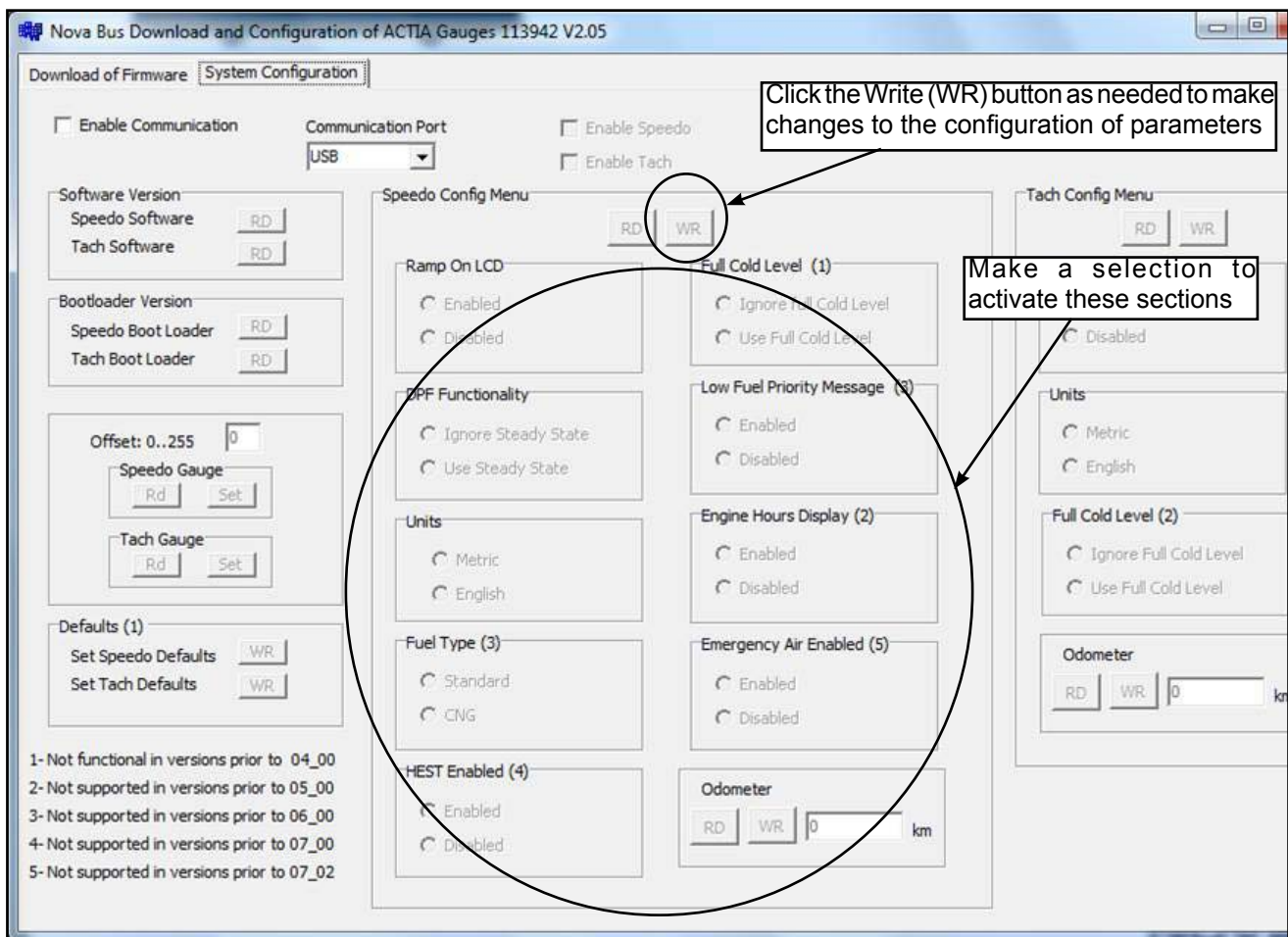


Figure 20 - Adjusting Speedometer Parameters

3.1.16 Adjust the needle zero as needed.

Step 1: Check Enable Communication.

Step 2: Click RD and note the value displayed in the offset box.

Step 3: If the speedometer needle position is above zero, enter a new value lower than the one displayed in the offset box, e.g. if the value shown is 50, enter 40 in the offset box.

Step 4: Click Set.

Step 5: Repeat steps 1-3 until the needle is correctly positioned at zero (see Figure 21).

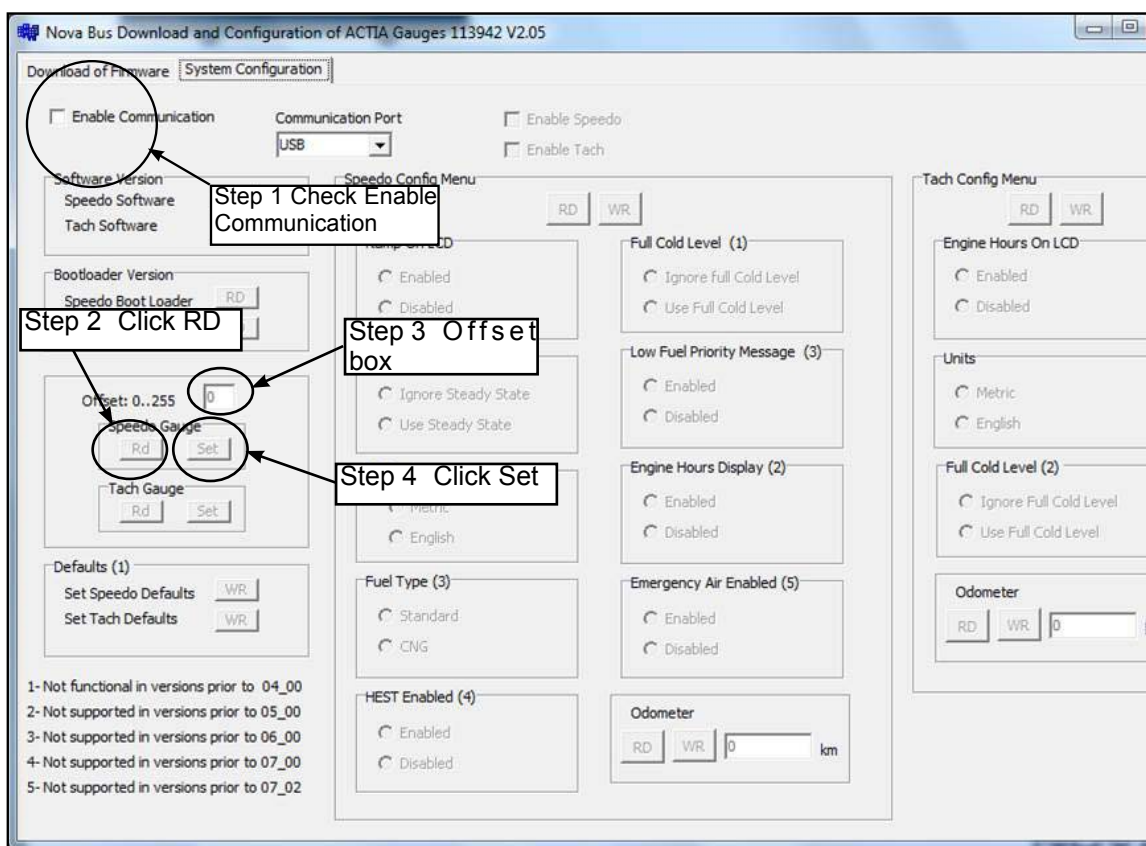


Figure 21 - Adjusting Needle to Zero

TACHOMETER PROCEDURE

2005-2012 ENGINES

4.1.1 Throughout the entire download procedure, the MASTER CONTROL SWITCH must be in the OFF position and the engine start switch, set the engine compartment switch to rear mode. Follow the steps in Figure 22. Note the configuration of tachometer parameters. This configuration will be required in step 4.1.5 (see Figure 22).

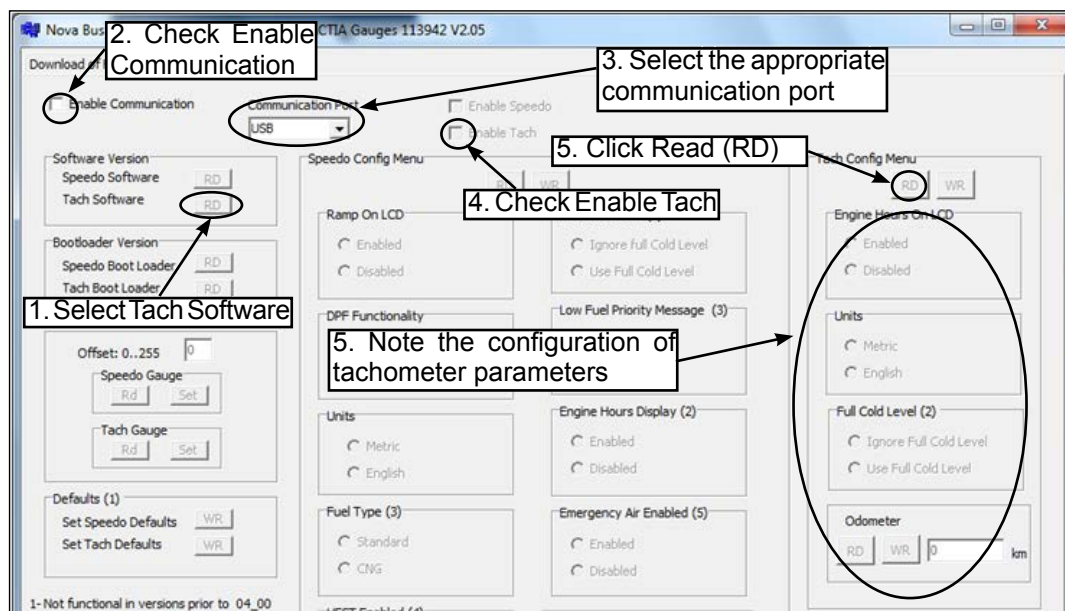


Figure 22 - Tachometer Menu Screen

4.1.2 Follow the steps in Figure 23 to select the right program for the gauge being reprogrammed (see Figure 23).

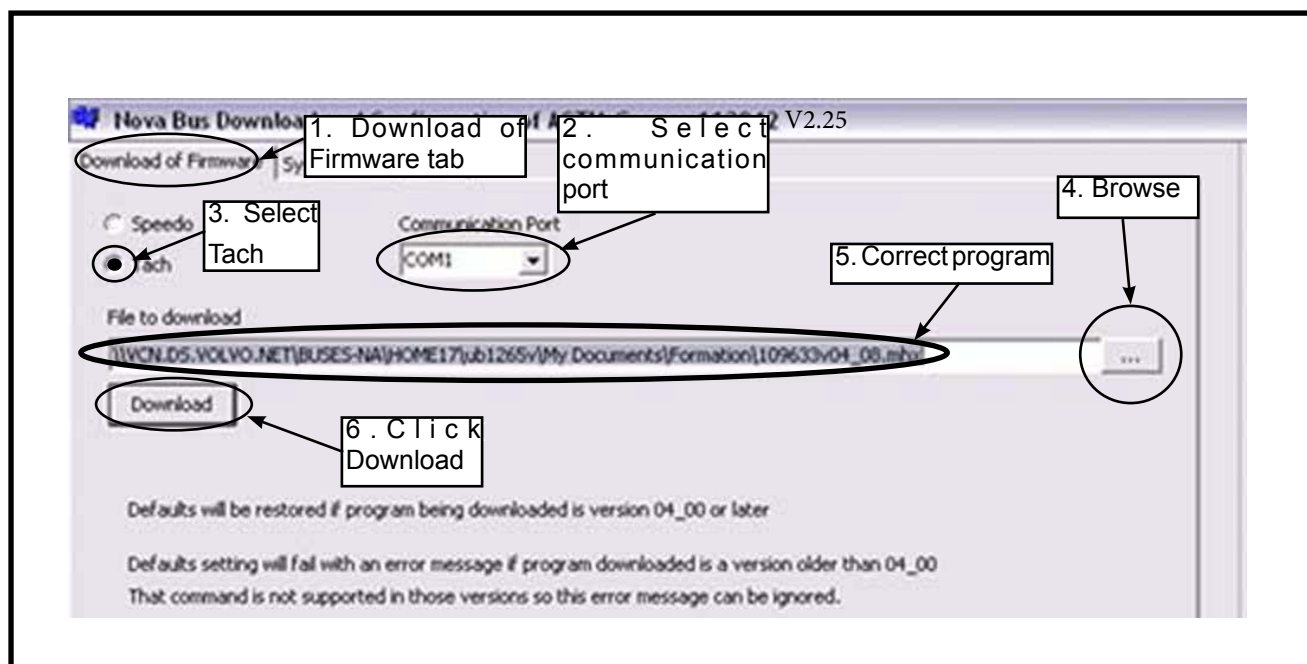


Figure 23 - Select the File to Download

4.1.3 A download progress window is displayed. A new window opens once the download process is complete (see Figure 24).

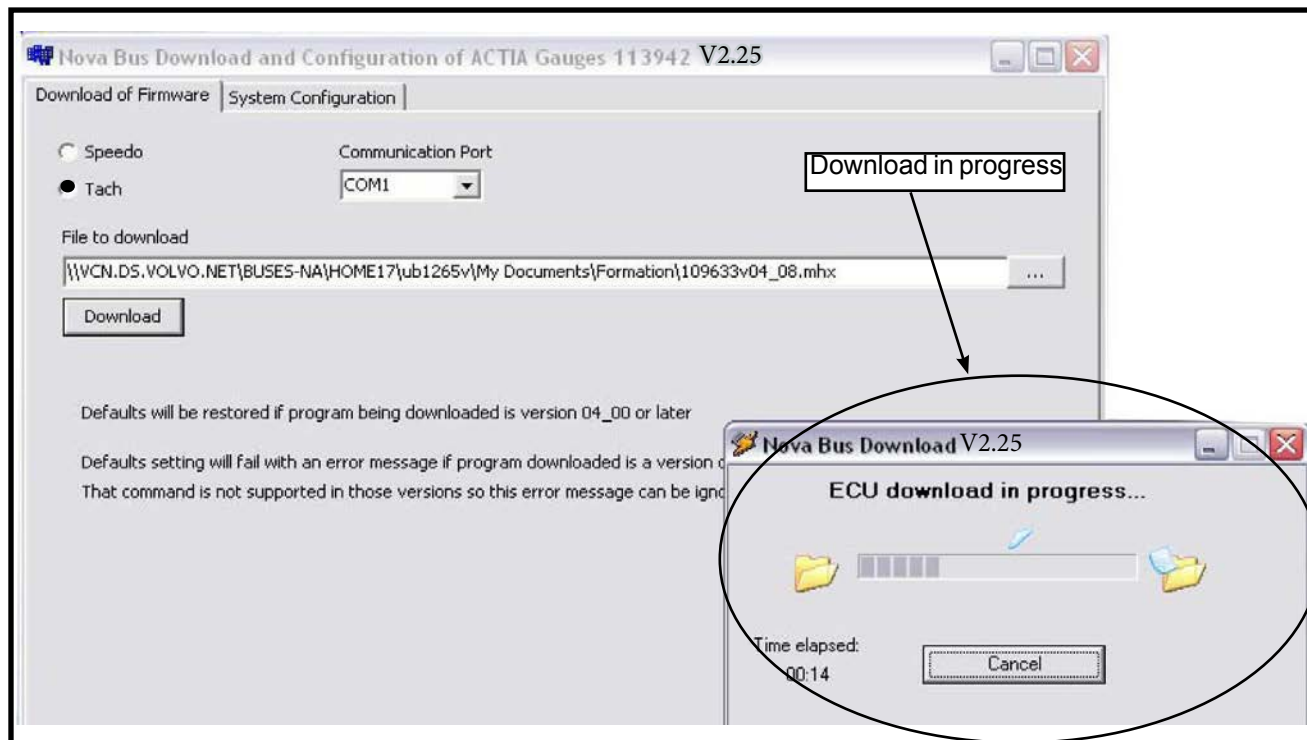


Figure 24 - Program Download

4.1.4 Use the Tach Config menu to check tachometer parameters and make the required adjustments. Check that the configuration of parameters is the same as in step 4.1.1. If the configuration remains the same, skip to the next step. If the configuration is different, make changes as necessary and click WR to save (see Figure 25).

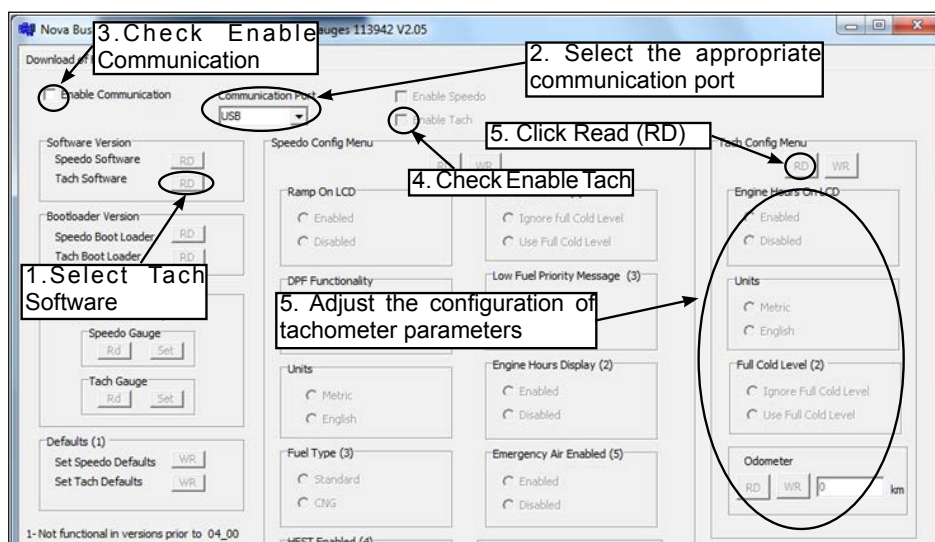


Figure 25 - Adjusting Tachometer Parameters

- 4.2.6 Close software and computer.
 - 4.2.7 Disconnect cable.
 - 4.2.8 Close the left overhead consol panel.
 - 4.2.9 Start the vehicle and conduct operational test before returning vehicle in service.
- ❖