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GVI Gen 1

Mobile Inverter

Application Note: How to change the firmware of GVI Gen1



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Non-warranty clause

We checked the contents of this publication for compliance with the associated hardware and software. We can, however, not exclude discrepancies and do therefore not accept any liability for the exact compliance. The information in this publication is regularly checked, necessary corrections will be part of the subsequent publications.

English Master created.

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1 Introduction

1.1 About this document

The purpose of this note is to describe how to install the FW (firmware) on the GVI1 inverter.

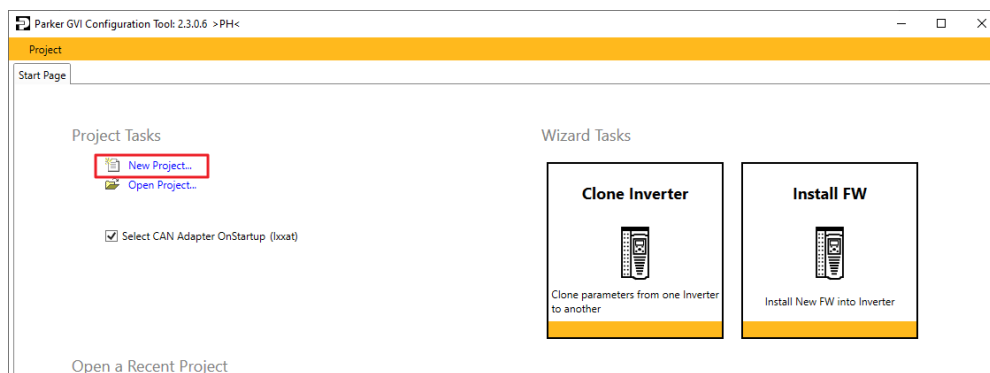
Note: The firmware files, including update EDS files, are available on request from Parker.
Please contact: EMPD.MobileSystemsTech@support.parker.com

2 Procedure

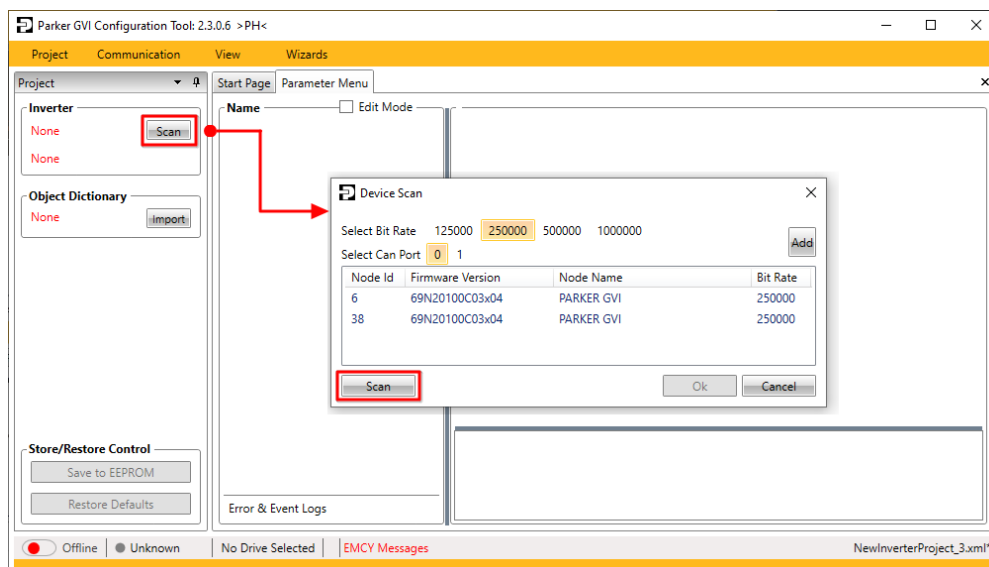
2.1 Identifying the firmware version on the GVI inverter

To identify the installed firmware version on the GVI inverter, it is necessary to scan the device and read the firmware version. To do so please follow the next steps.

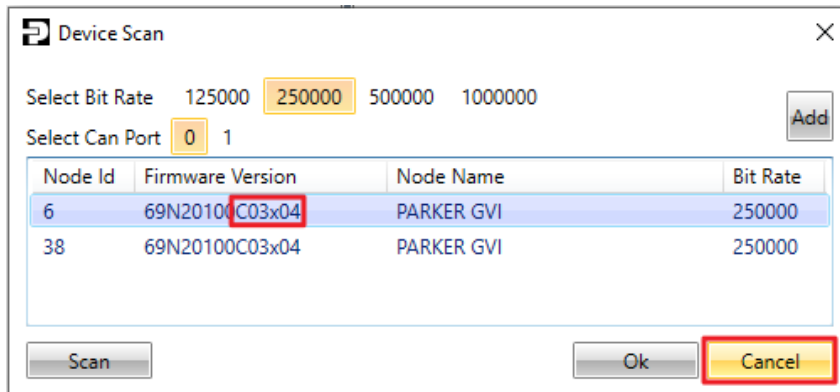
1. In the GVI Config Tool, on the **Start Page**, select **New Project**.



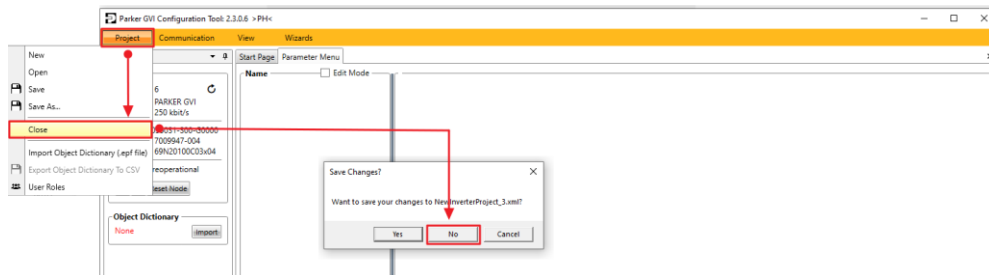
2. In the **Project/Inverter** section, select **Scan** to open the **Device Scan** window and **Scan** the network.



- The last 6 characters of the GVI software number in the column **Firmware Version** represent the installed firmware version on the device. In this example, the installed firmware version is **C03x04**. Close the **Device Scan** window by selecting **Cancel**.

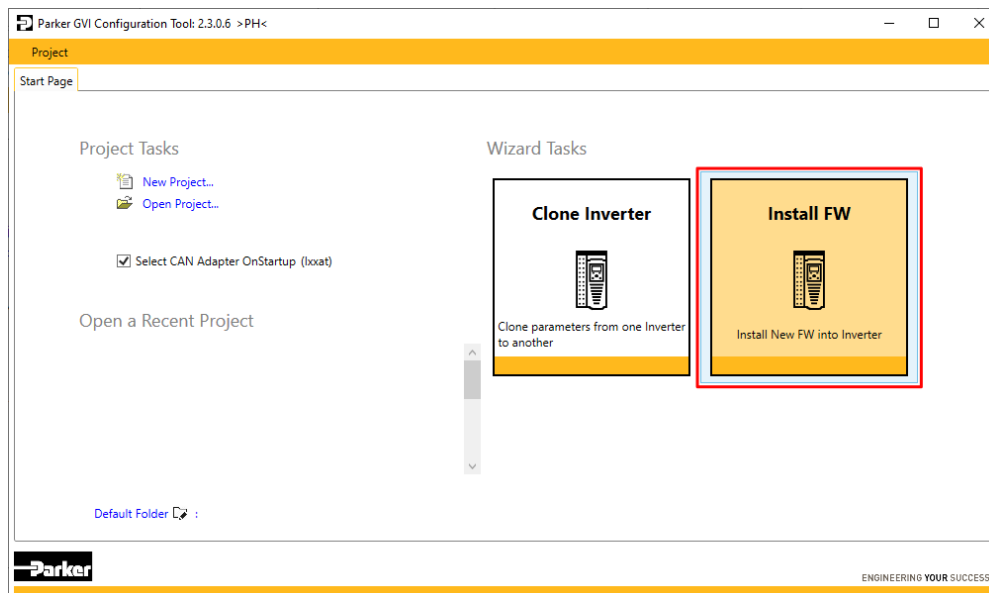


- In the **Menu Bar/Project** select **Close** to close the program. Don't save the project, select **No**.

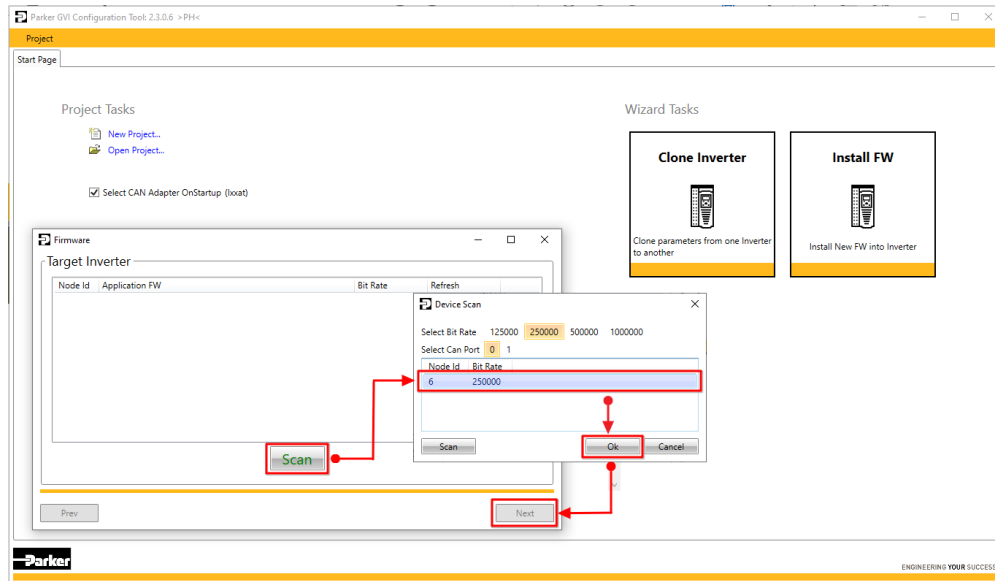


2.2 Firmware version installation process

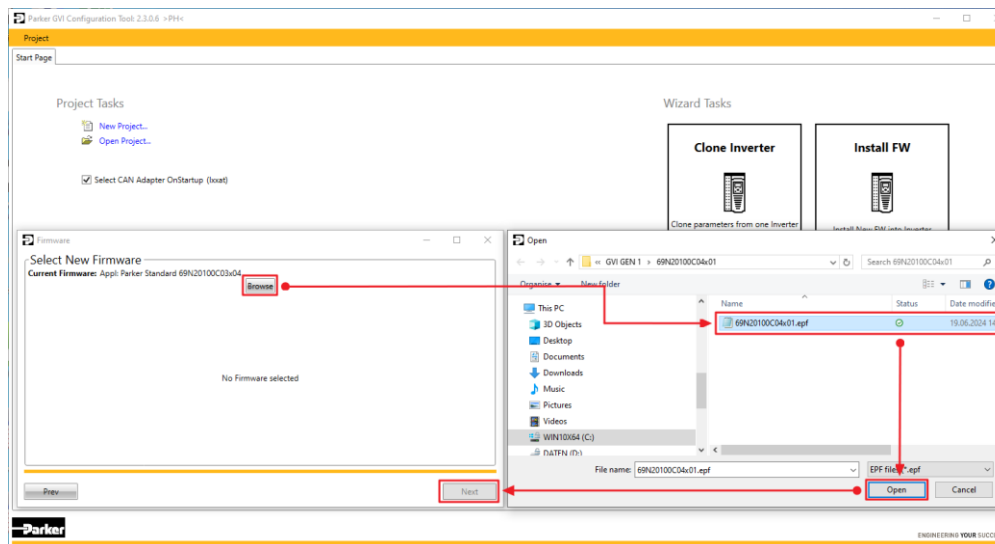
- From the **Start Page**, select the **Install FW**.



2. **Scan** the network, select the target inverter with the right **Node Id**, then click **Ok** and go to the next step by clicking **Next**.

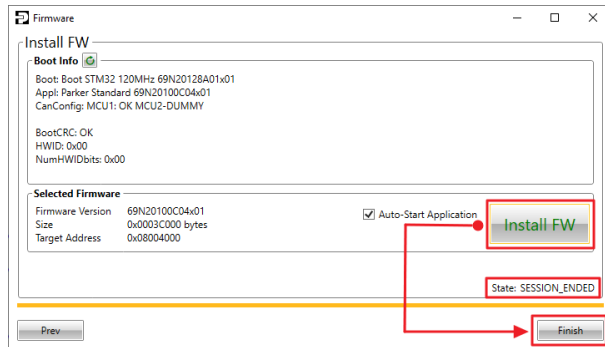


3. Click **Browse**, select the correct firmware version file (.epf file) from the folder to be uploaded, **Open** the file, and then select **Next** to go to the next step.

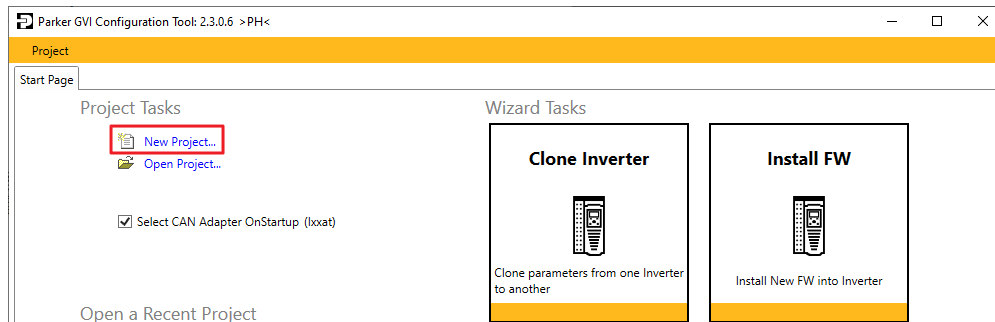


*Note: The name of the firmware file (.epf file) is related to the type of the GVI inverter and firmware version. For the used GVI in this example **GVI-C024-0350**, the name of the firmware file will be **69N20100C04x01** for the firmware version **C04x01** or **69N20100C03x04** for the firmware version **C03x04**.*

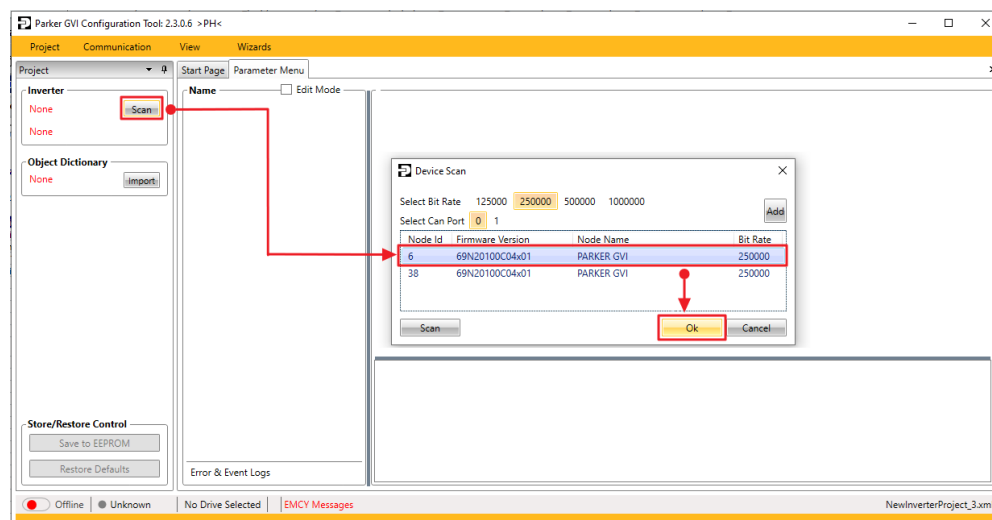
4. Select **Install FW**, to install the firmware version on the GVI and. The complete process takes about 30 seconds. After successful installation, the inverter state will be **SESSION_ENDED**. To close the window, select **Finish**.



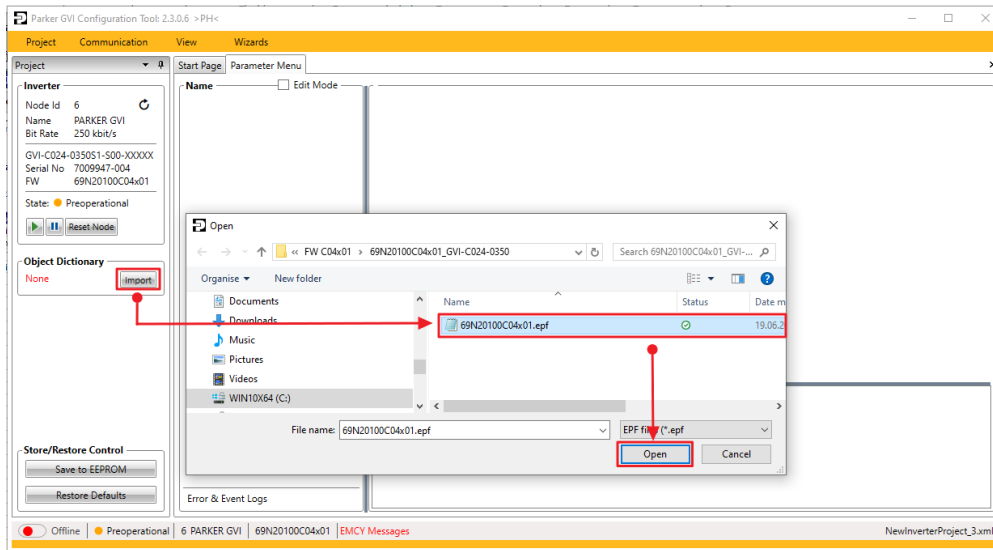
5. **Power OFF/Power ON** the GVI.
6. From the **Start Page**, select **New Project**.



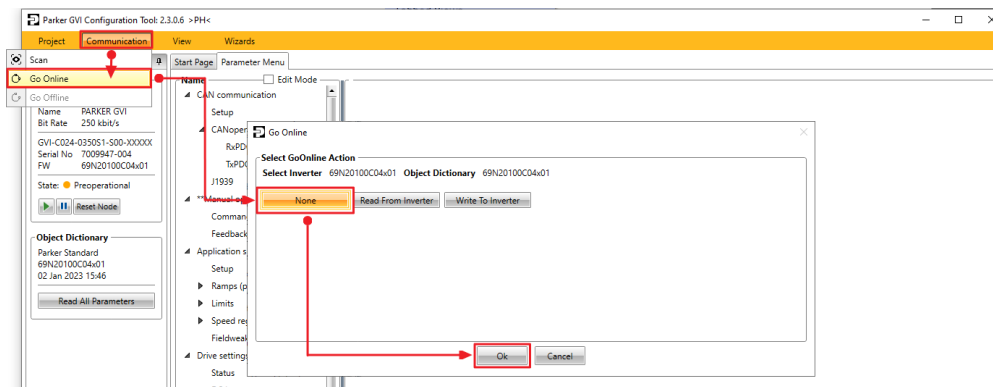
7. In the **Project/Inverter** section, select **Scan** to open the **Device Scan** window, **Scan** the network, select the target inverter, and click **Ok**. Confirm that the firmware version in the targeted inverter is the installed firmware version from the previous steps.



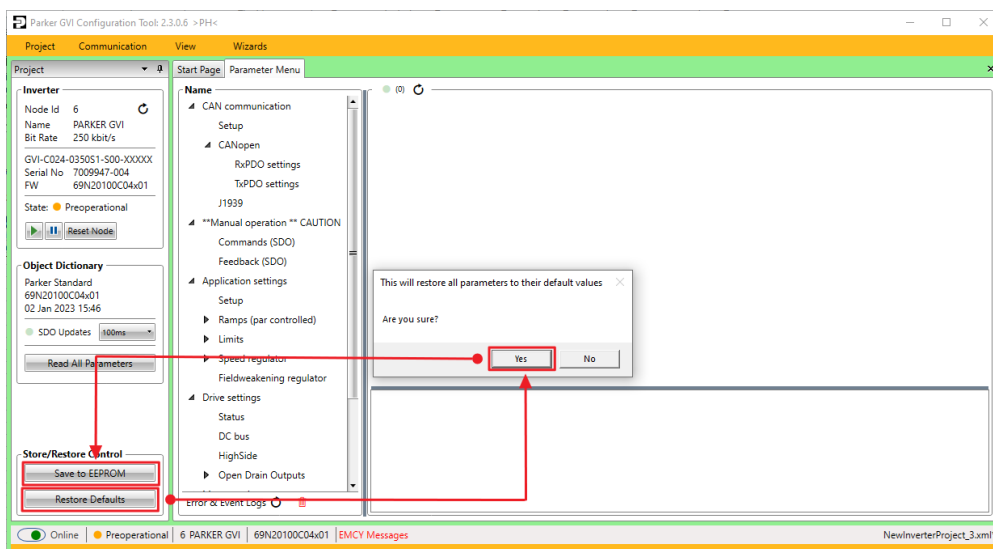
- In the **Project/Object Dictionary** section, select **Import**, then select the Object Dictionary with the correct firmware file and select **Open**.



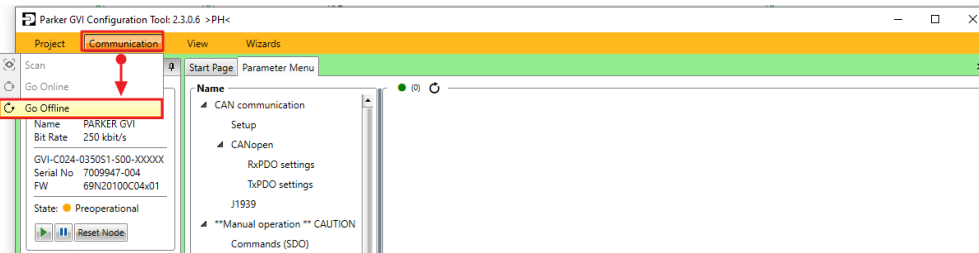
- In the **Menu Bar/Communication**, select **Go Online**, then select **None** and confirm with **Ok**.



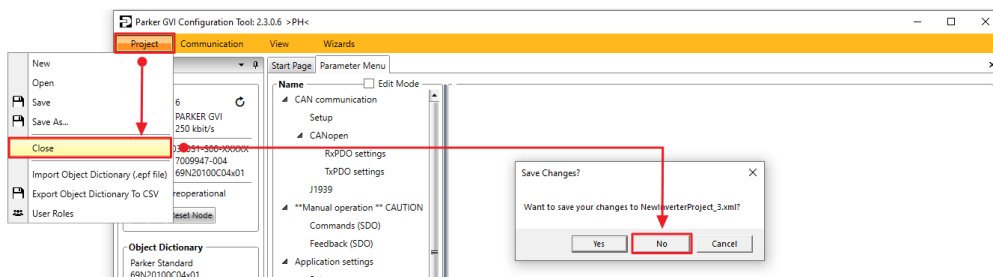
- Restore the default parameters by selecting the **Restore Defaults**, confirm the Pop-Up window with **Yes** and select **Save to EEPROM**.



11. In the **Menu Bar/Communication**, select **Go Offline**.



12. In the **Menu Bar/Project**, select **Close** to close the project. Don't save the project by selecting **No**.



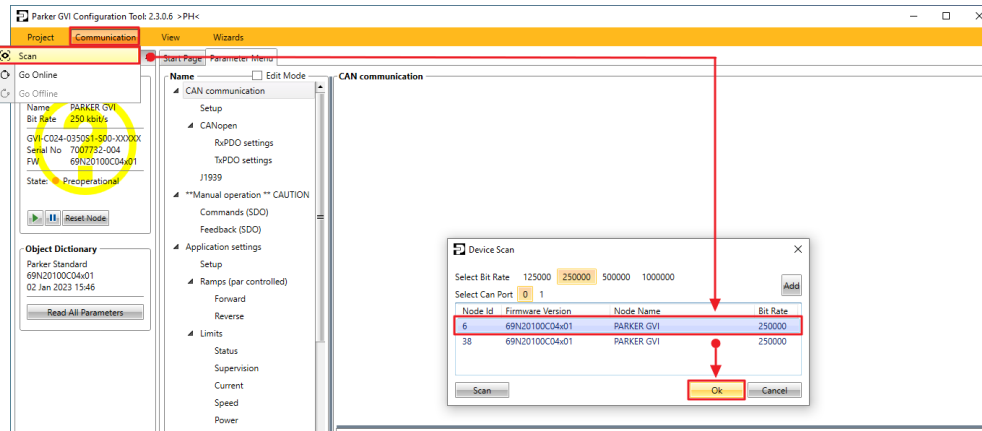
13. **Power OFF/Power ON** the GVI.

With this step the new firmware version is installed on the GVI inverter, and all parameters have a default values. The next steps describe the procedure of writing the GVI project with the new firmware version in the inverter. For the instruction how to convert the project file from the version C03x04 to the version C04x01 please follow the description in the document: "Application Note: How to convert a GVI Gen1 project file from FW C03x04 to FW C04x01".

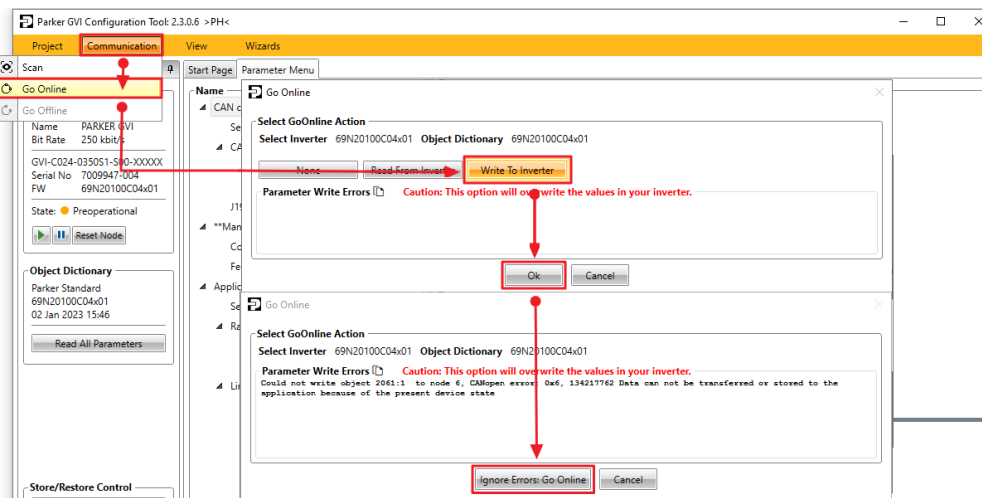
14. In the **Start Page** select **Open project** and browse the project to be written on the GVI inverter or **Open a Recent Project** directly from the **Start Page**.



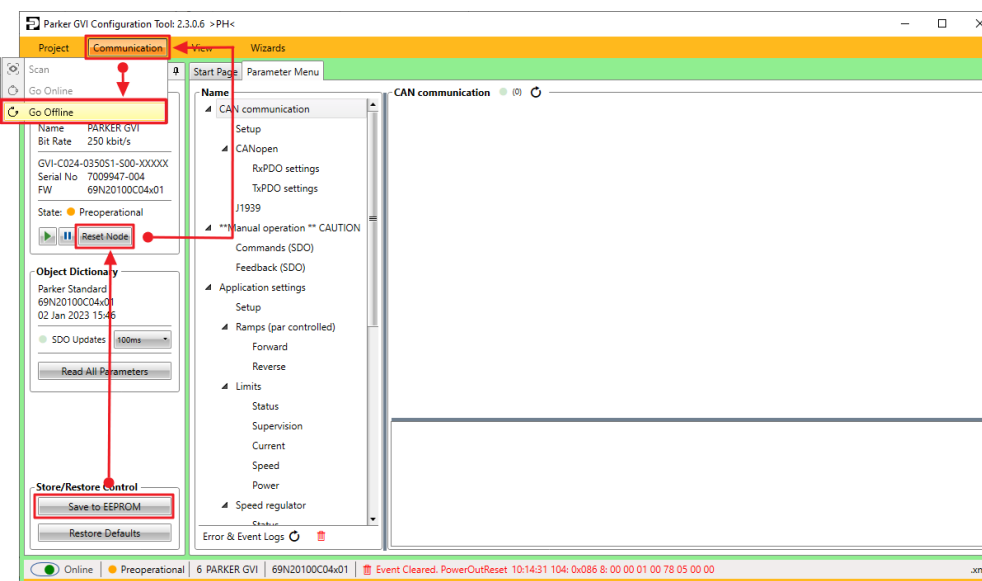
15. In the **Menu Bar/Communication** select **Scan** and chose the GVI inverter by selecting it and click **Ok**.



16. In the **Menu Bar/Communication**, select **Go Online**, select **Write to Inverter**, select **Ok**, then select **Ignore Errors: Go Online**.

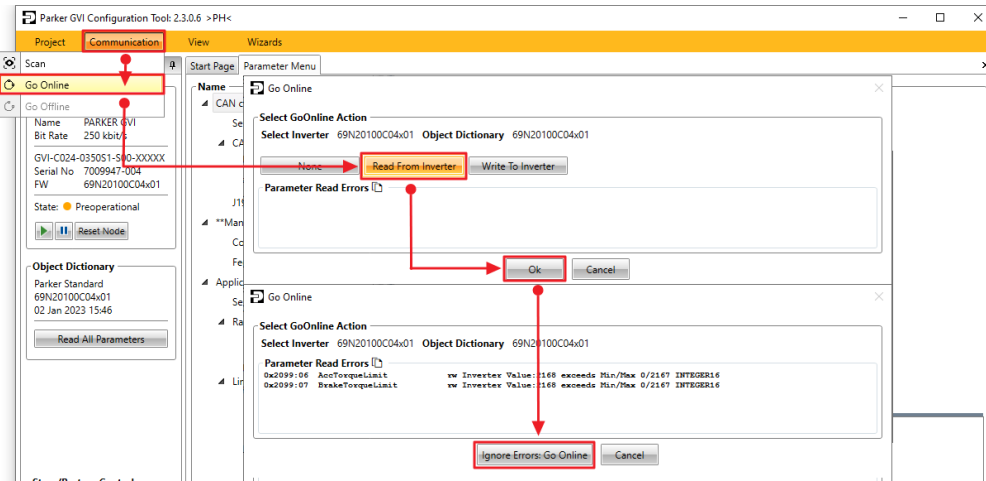


17. Select **Save to EEPROM**, then select **Reset Node** and in the **Menu Bar/Communication** select **Go OFFLINE**.



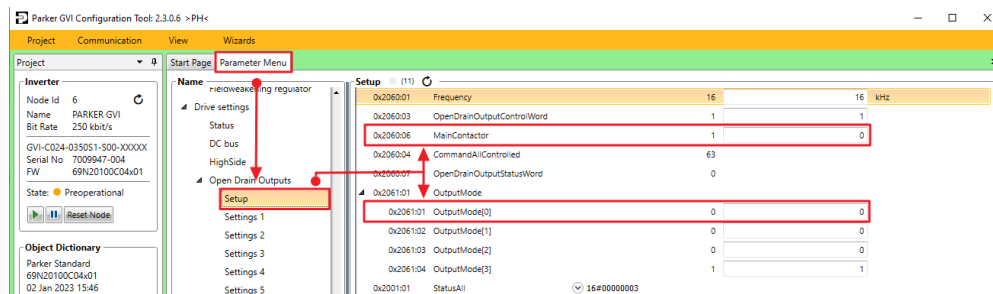
18. **Power OFF/Power ON** the GVI.

19. In the **Menu Bar/Communication**, select **Go Online**, select **Read from Inverter**, select **Ok**, then select **Ignore Errors: Go Online**.



Please be noted, that for the low voltage inverter (GVI LV) the pre-charge is per default not enabled. To enable the pre-charge sequence please follow the steps below.

20. In the **Parameter Menu/Open Drain Outputs/Setup** change value of the objects **0x2060:06 MainContactor** and **0x2060:01 OutputMode[0]** according to the sequence from below.





21. Change the value of the object **0x2060:06 MainContactor** from **1** to **0**, then select **Write To inverter**.

0x2060:06	MainContactor	1	<input type="text" value="0"/>	
0x2060:04	CommandAllControlled	63		
0x2060:07	OpenDrainOutputStatusWord	0		
0x2061:01	OutputMode			
0x2061:01	OutputMode[0]	0	<input type="text" value="0"/>	

22. Change the value of the object **0x2060:01 OutputMode[0]** from **0** to **2**, then select **Write To inverter**.

0x2060:06	MainContactor	0	<input type="text" value="0"/>	
0x2060:04	CommandAllControlled	63		
0x2060:07	OpenDrainOutputStatusWord	0		
0x2061:01	OutputMode			
0x2061:01	OutputMode[0]	0	<input type="text" value="2"/>	

23. Change the value of the object **0x2060:06 MainContactor** from **0** to **1**, then select **Write To inverter**.

0x2060:06	MainContactor	0	<input type="text" value="1"/>	 
0x2060:04	CommandAllControlled	63		
0x2060:07	OpenDrainOutputStatusWord	0		
▲ 0x2061:01	OutputMode			
0x2061:01	OutputMode[0]	2	<input type="text" value="2"/>	

24. Select **Save to EEPROM, Power OFF/Power ON** the GVI.