

## USB Boot Loader

Software for Updating the Firmware of the MAVOMASTER & MAVOPROBE

1.0/04.23



With its USB boot loader, GOSSEN Foto- und Lichtmesstechnik GmbH (GOSSEN) provides you with software for updating the firmware of your MAVOMASTER and MAVOPROBEs via a PC.

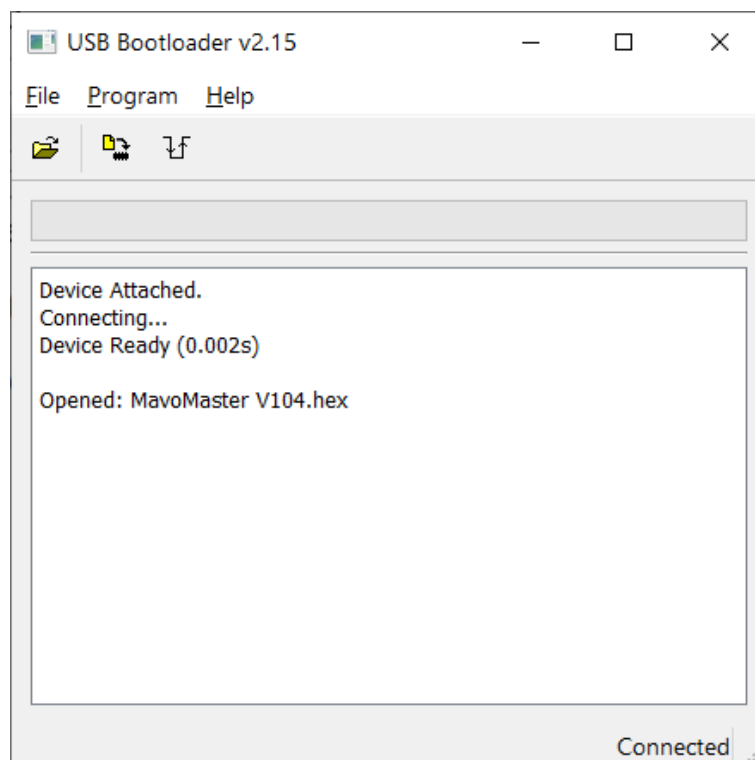
The USB boot loader is part of the [Microchip Libraries for Applications](#) (v2015\_08\_10) which can be downloaded from [Microchip](#) free of charge.

GOSSEN makes part of the software package available to you here individually in order to make the firmware update procedure more user-friendly.

[Microchip's](#) license agreements for use of the software package are included with the software as a PDF file.

The software is free of charge and can be used in compliance with the license agreements. By using the software you confirm that you have read and accepted the license agreement.

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## 1. End User License Agreement

- The USB boot loader can be used as freeware by private persons and companies.
- GOSSEN assumes no liability for damages which result from use of the USB boot loader, or due to any possible infection of the software with a virus or viruses.
- Support for the software is limited to this manual.
- Rights to the brand names mentioned in the software belong exclusively to their respective owners.
- The USB boot loader may not be sold.
- Microchip Technology Inc. holds the copyrights to the USB boot loader.
- If you do not agree to these conditions, you are not entitled to use the USB boot loader.

## 2. Preparing the Update

The USB boot loader update program and the respective firmware update for your MAVOSPEC can be downloaded from [GOSSEN's website](#) under Spectral Photometry / Downloads.

Alternatively, you can access the download page directly by this link: [Downloads](#).

System requirements:

- Computer with Windows 7® or higher
- Installed extraction program (e.g. Windows Extraction Wizard)
- Internet connection

Download:

- MAVOMASTER\_Firmwareupdater.zip (update programm)
- MAVOMASTER Firmware (e.g. Firmware V 1.0.5 (ZIP))  
or MAVOPROBE Firmware (ZIP)

The USB boot loader program is made available in a compressed format as a ZIP file and must be extracted with the Windows Extraction Wizard or another comparable program. Save the files on your PC to an easily accessible folder. You may need administrator rights to this end, as well as in order to use the software.

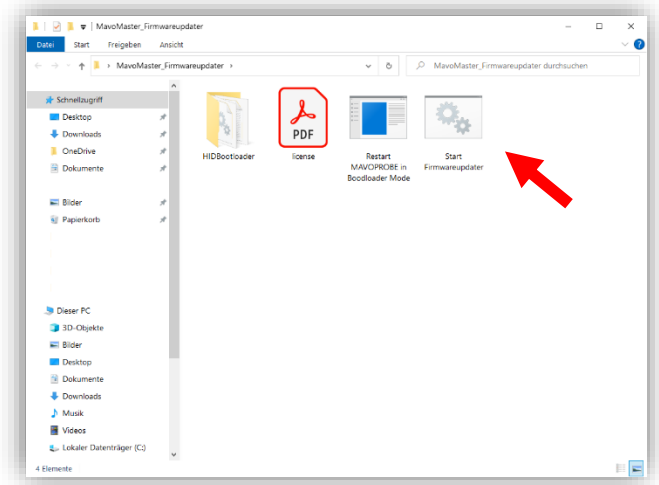
Before updating the firmware, make a note of any changes you have made to the device settings. As a rule, all settings are retained, but they may be returned to their default settings under certain circumstances if new settings are added.

This is documented in the release notes, in case the settings are reset due to the update.

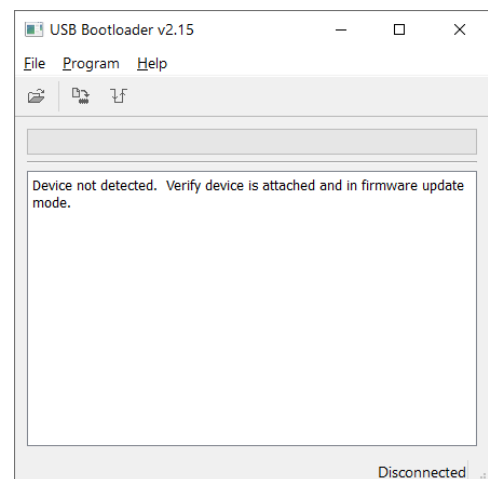
### 3. Updating the MAVOMASTER

You can now begin with the firmware update for the **MAVOMASTER**. The procedure is described step by step. Please adhere exactly to the respective instructions and the order in which they appear.

- Start the USB boot loader by double clicking „Start Firmwareupdater“



- The program is started



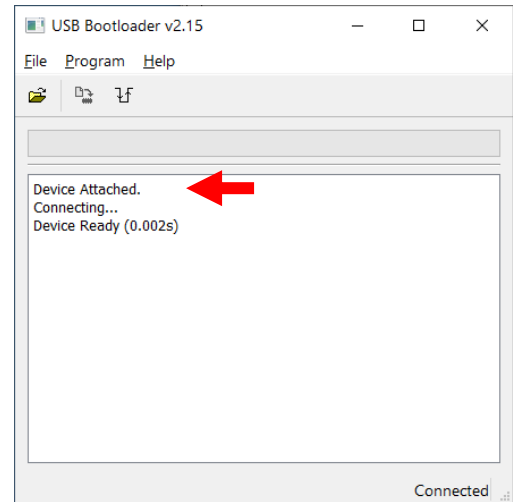
- Shut down the **MAVOMASTER**, you can leave the battery in the device


- Press and hold the HOLD Key and connect your **MAVOMASTER** to an unused USB port at your PC

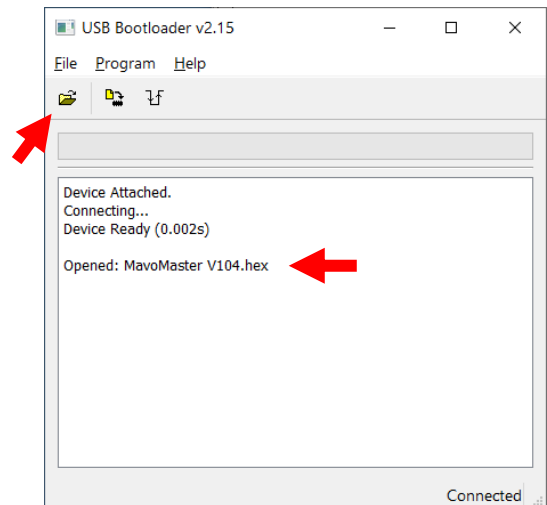



- The blinking, lower left Border of the display (Red) on the device indicates that the boot loader mode has been successfully started.  
If applicable, wait until Windows installs the required drivers before continuing

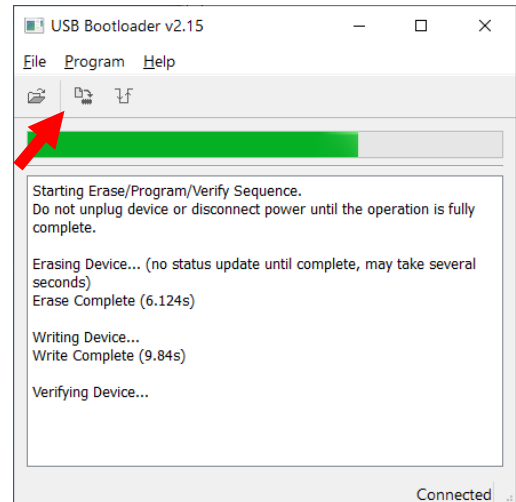
- If the device has been found by the software, a message appears: „Device Attached“.



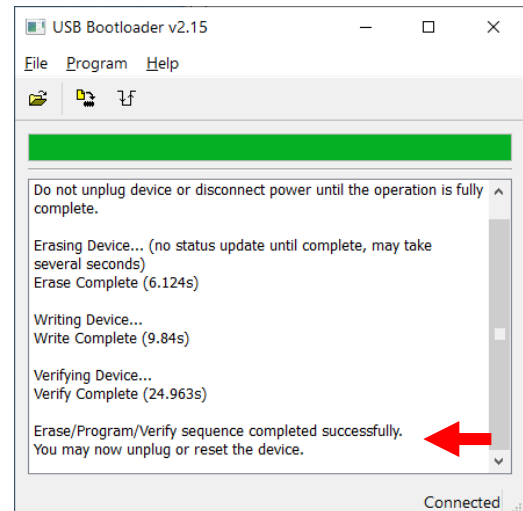
- Load the downloaded software by clicking the  button. After the firmware file has been successfully loaded, a message appears in the program's main window: "Opened: MavoMaster\_Vxxx.hex". This may take a few seconds.



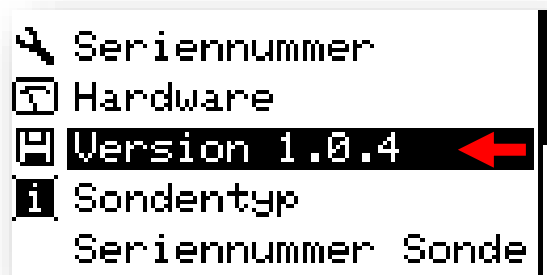
- Start the firmware update by clicking the  button and wait until the program has completed all installation steps (erasing, writing and verifying). This takes about one minute.



- After the firmware has been successfully updated, this is confirmed by the program: “Erase/Program/Verify sequence completed successfully”.



- The USB boot loader can now be exited and the connection between the **MAVOMASTER** and the PC can be interrupted.
- If you start your **MAVOMASTER**, you can check the Firmware Version by pressing and holding the Power Button to reach the settings. On the info screen (undermost setting) you can see the Firmware Version

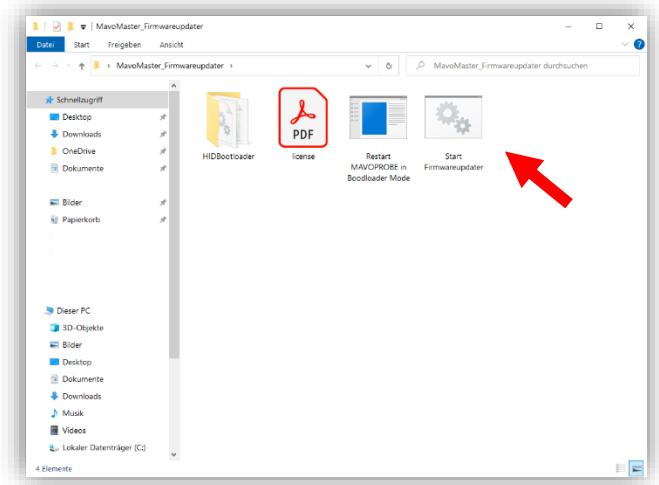


Congratulations on updating the firmware for your **MAVOMASTER**! We wish you lots of fun with the new functions.

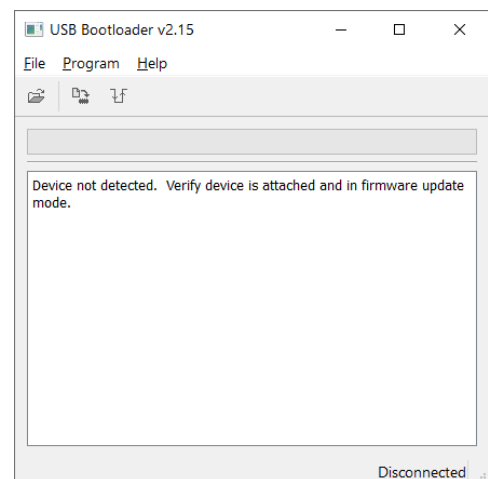
## 4. Updating the MAVOPROBE

You can now begin with the firmware update for the **MAVOPROBE**. All **MAVOPROBE** act in the same way. The procedure is described step by step. Please adhere exactly to the respective instructions and the order in which they appear.

- Start the USB boot loader by double clicking „Start Firmwareupdater“



- The program is started

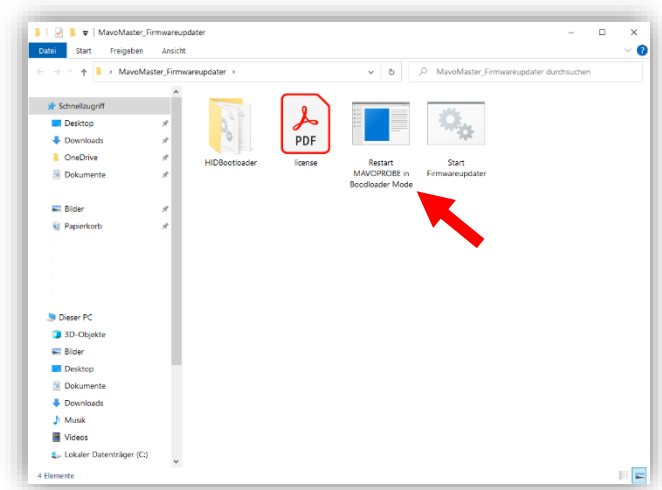


- Connect the **MAVOPROBE** with the USB-Adapter to the Computer.

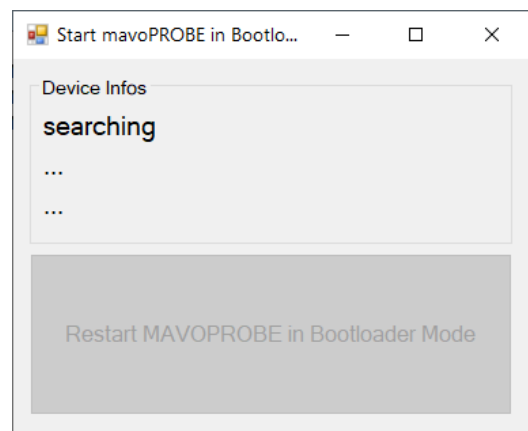
You can buy the Adapter from us or build it yourself. The Manual to do so is included in the SDK for **MAVOMASTER** and **MAVOPROBE**



- Start the Software „Restart MAVOPROBE in Bootloader Mode“

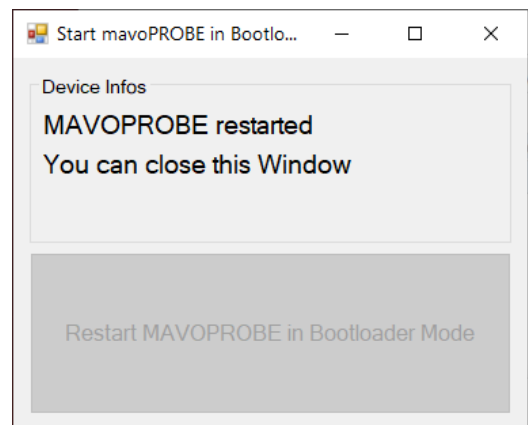
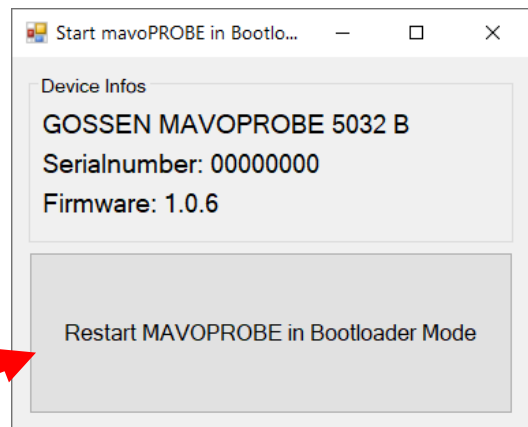


- The Software searches automatically for a connected MAVOPROBE.



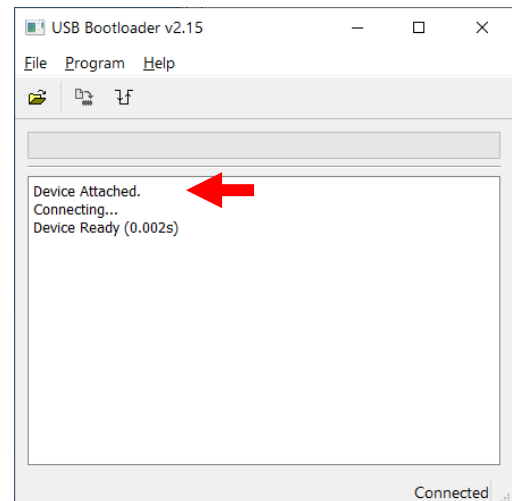
- When a MAVOPROBE has been found its Information will be displayed and the Button to restart the MAVOPROBE in bootloader mode is enabled.


You can now close the window

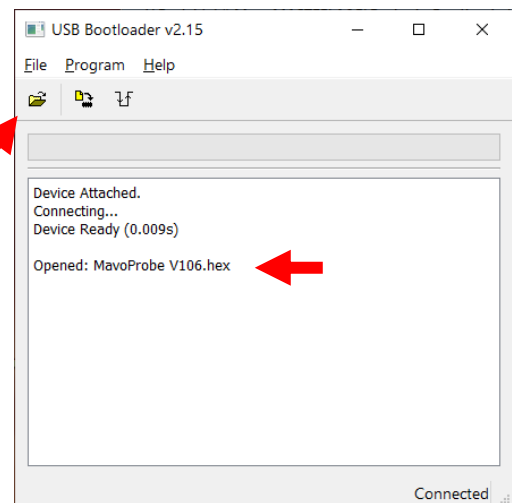





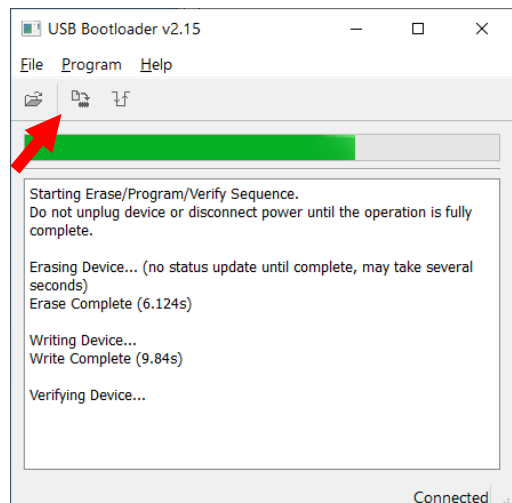
- If the device has been found by the software, a message appears: „Device Attached“.



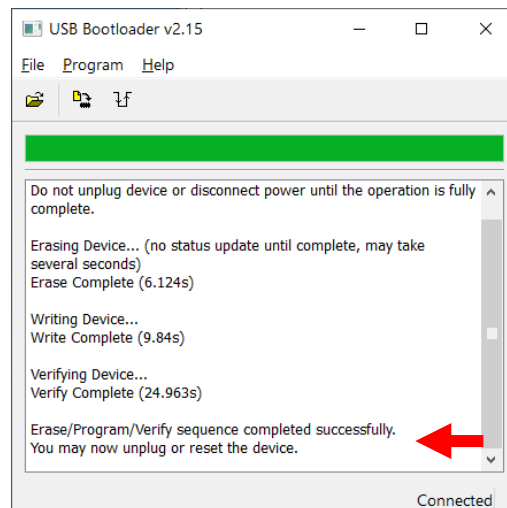
- Load the downloaded software by clicking the  button. After the firmware file has been successfully loaded, a message appears in the program's main window: "Opened: MavoProbe\_Vxxx.hex". This may take a few seconds.



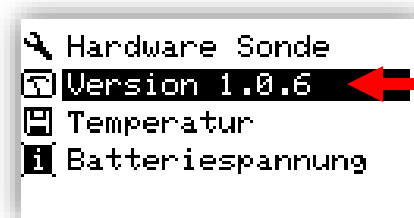
- Start the firmware update by clicking the  button and wait until the program has completed all installation steps (erasing, writing and verifying). This takes about one minute.



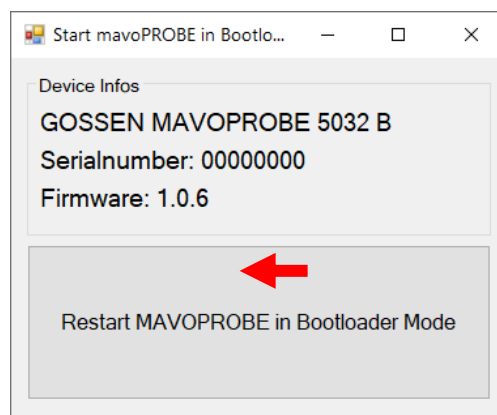
- After the firmware has been successfully updated, this is confirmed by the program: “Erase/Program/Verify sequence completed successfully“



- The USB boot loader can now be exited and the connection between the MAVOPROBE and the PC can be interrupted.
- You can check the Firmware Version of the MAVOPROBE now by connecting it to a MAVOMASTER. To do that, press and hold the Power Button to reach the settings. On the info screen (undermost setting) you can see the Firmware Version.



Alternatively you can check the Version with the Software to Restart the MAVOPROBE



Congratulations on updating the firmware for your MAVOPROBE! We wish you lots of fun with the new functions.

Subject to change without notice.

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