

## USB Boot Loader

Software for Updating the Firmware of the MAVOSPEC **BASE** & **LITE**

1.1/03.24



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

On the following pages only MAVOSPEC is used, meaning MAVOSPEC **BASE** and MAVOSPEC **LITE**.

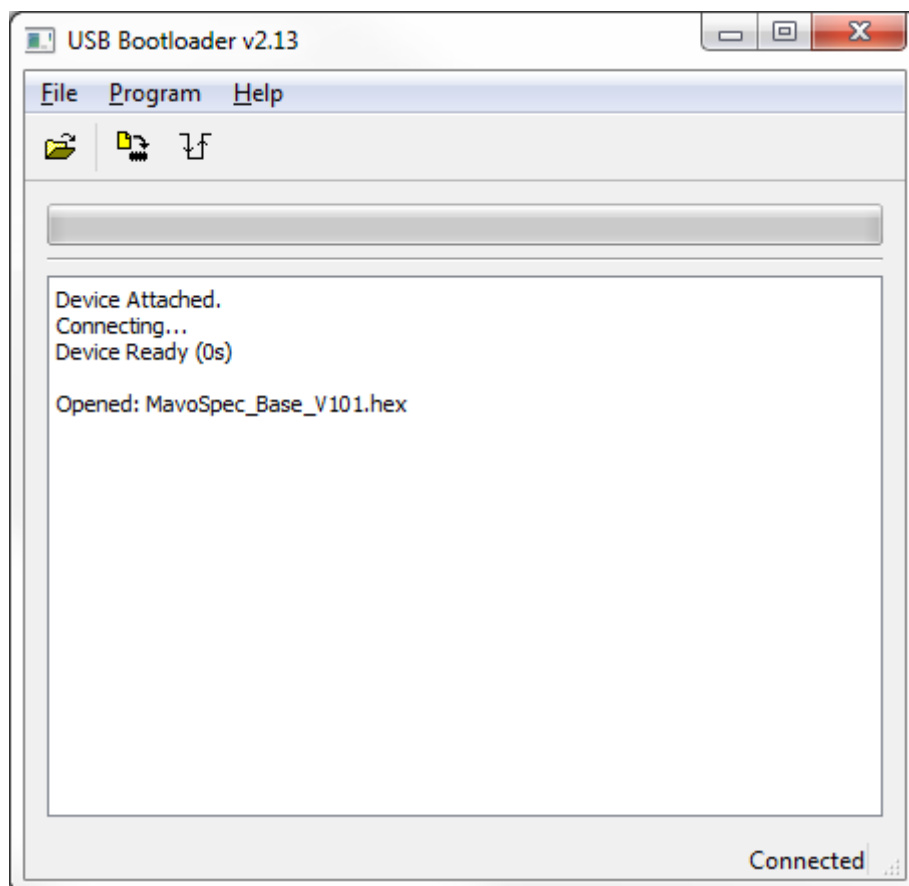
The USB boot loader is part of the [Microchip Libraries for Applications](#) (v2015\_08\_10) which can be downloaded from [Microchip](#) free of charge.

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:

- Firmwareupdater.zip (update program)
- MAVOSPEC firmware (e.g. Firmware V 1.3.0 (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 MAVOSPEC

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

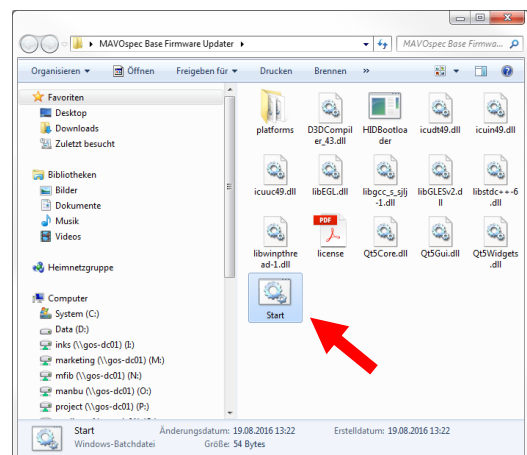
- Switch your MAVOSPEC off.
- Remove the retaining screw from the battery compartment lid with a suitable Phillips head screwdriver and pull the lid down and out of the device.
- Remove the rechargeable battery.
- Press and hold the DATA key and connect your MAVOSPEC to an unused USB port at your PC.



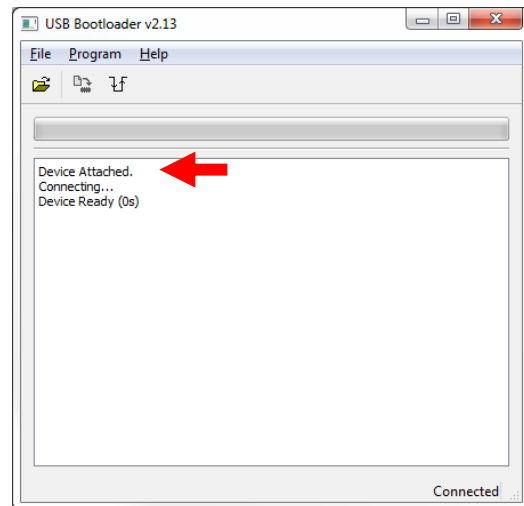
- The blinking status LED (yellow) on the device indicates that the boot loader mode has been successfully started. If applicable, wait until Windows installs the required drivers before continuing.




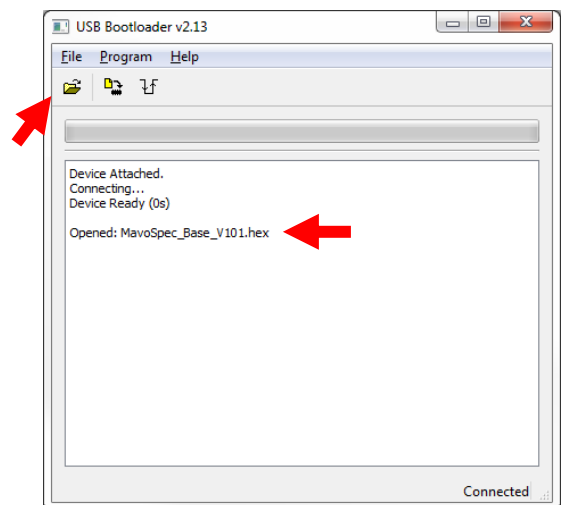
- Start the USB boot loader by double clicking "Start". Do not start the USB boot loader via the "HIDBootloader.exe" file, because the MAVOSPEC will otherwise not be detected.




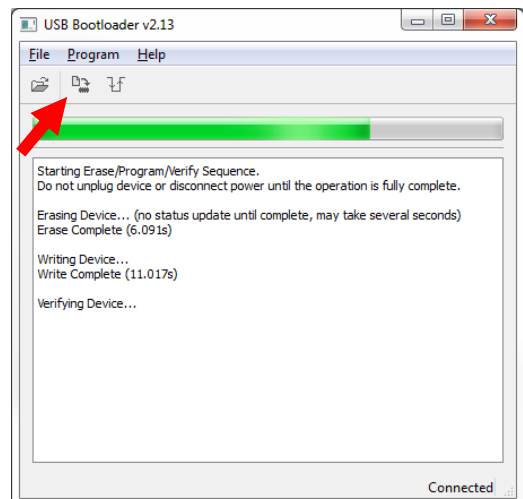
- The program is started and a message appears indicating that the device has been detected: “Device Attached”.



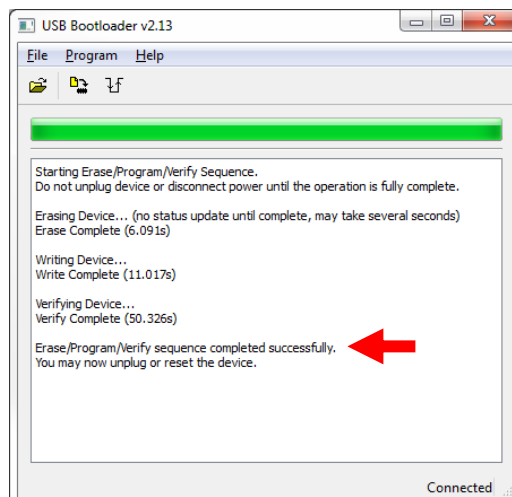
- Load the downloaded software by clicking the  button. After the firmware file has been successfully loaded, a message appears in the program's main window: “Opened: MavoSpec\_Base\_Vxxx.hex”. This may take a few seconds.



- 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.



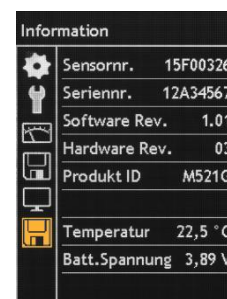
- After the firmware has been successfully updated, this is confirmed by the program: “Erase/Program/Verify sequence completed successfully”.



- The USB boot loader can now be exited and the connection between the MAVOSPEC and the PC can be interrupted.
- Insert the battery into the compartment as shown in the figure. Replace the battery compartment lid and secure it with the screw.



- Your MAVOSPEC is now switched on automatically. Briefly press the MENU key in order to access the device settings. You can see whether or not the desired firmware has been installed under the “Information” heading.



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

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Subject to change without notice.

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