Synth Pro Updating firmware and voices via USB

By connecting the MFB Synth Pro and a computer via USB, having the corresponding drivers installed and using a terminal software, you can
bring the firmware of your hardware and its voice processors up to date.

1. Displaying the firmware-version

After switching on the unit, the current firmware-version of the MFB Synth Pro is displayed in the bottom row of the display. The entry *MFB-SYNTH Pro8 V1* means that firmware-version 1 is installed on the unit.

2. Preparation

2.1. Installing the USB-driver

The MFB Synth Pro uses the **FT232H** chip by FTDI Chip to convert USB-data to serial data. To establish a connection between the computer and the synthesizer, a corresponding driver needs to be installed on the computer. This driver can be downloaded from the manufacturer's website:
https://www.ftdichip.com/Drivers/VCP.htm

- Navigate to the VCP Drivers section.
- Download the driver which matches your operating system here.
  Hint: In the *Comments column,* the Windows drivers can also be found as setup files which will make installation easier.
- Next, install the driver by double clicking the Setup.exe file. Use the corresponding .dmg-file under macOS respectively.
- Now connect the computer and the MFB Synth Pro using an appropriate USB-cable and turn on the synthesizer. To connect to the computer use the USB-socket type B on the synthesizer.
- Wait until Windows reports the device as being detected and usable. macOS will not report additional confirmations.

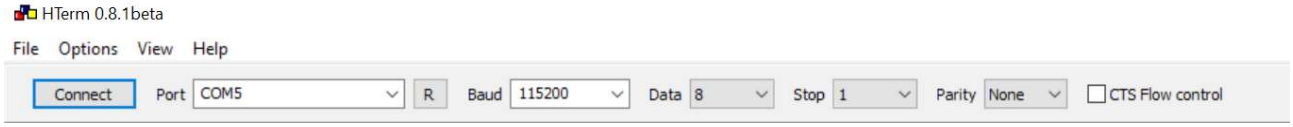
2.2. Installing a terminal software

Use a terminal software such as Hterm (Windows) or CoolTerm (macOS) to carry out the communication between the computer and your MFB Synth Pro.
For example, Hterm can be found here: https://www.heise.de/download/product/hterm-53283
CoolTerm can be found here:
https://www.macupdate.com/app/mac/31352/cooltermhttps://www.macupdate.com/app/mac/31352/coolterm

2.3. Connecting to the terminal software

2.3.1 Hterm (Windows)

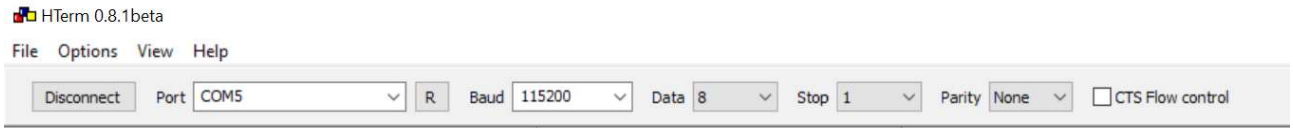
- Start Hterm.exe by double clicking the application icon.
- The COM ports are listed on the top left.
- Connect the MFB Synth Pro to the computer using USB. A COM number should appear after a short while. If necessary, press the button R once.
- A few numbers and data are displayed to the right of it that do not need to be changed. The values are: BAUD 115200, DATA 8, STOP1, Parity None.



- Now, click to the button **Connect** to the left, until the term **Disconnect** is displayed. Done! Hint: If nothing happens, the driver has not been installed successfully.

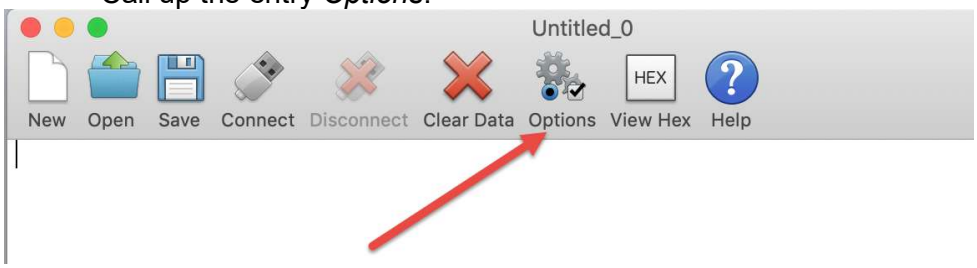


The result should look like this:

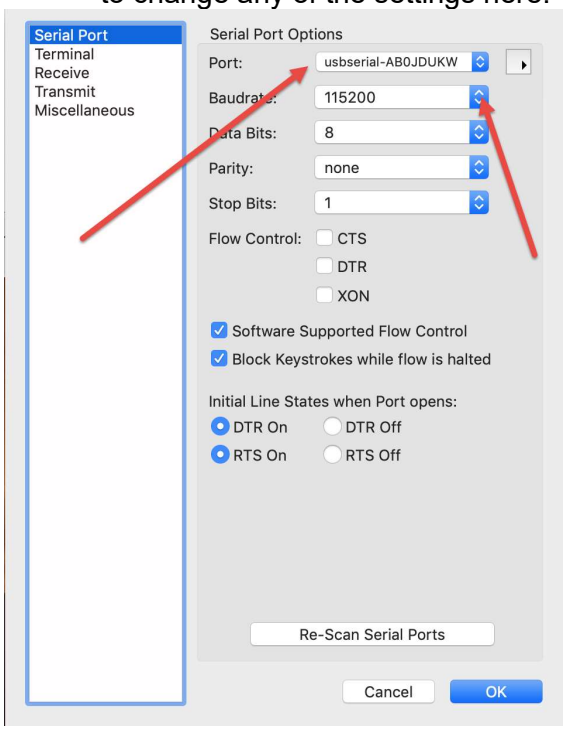


2.3.2 CoolTerm (macOS)

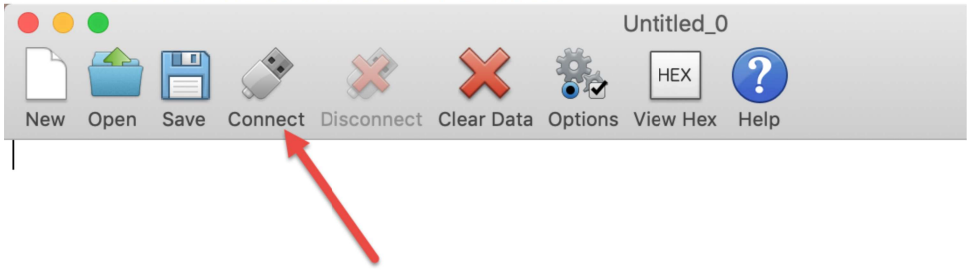
- Start CoolTerm by double clicking the application icon.
- Connect the MFB Synth Pro to the computer using USB.
- Call up the entry *Options*.



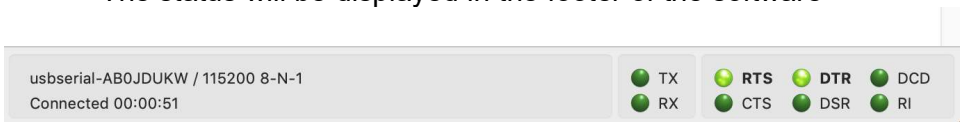
- Under port, select the entry *usbserial-AB0JDUKW*
- If necessary, click the button *Re-Scan Serial Ports*.
- Choose a baud rate of 115200.
- The other parameter settings can be seen on the screen below. It should not be necessary to change any of the settings here.



- Close the configuration window by hitting *OK*
- Click on the button labeled *Connect*



- The status will be displayed in the footer of the software



3. Performing a firmware update

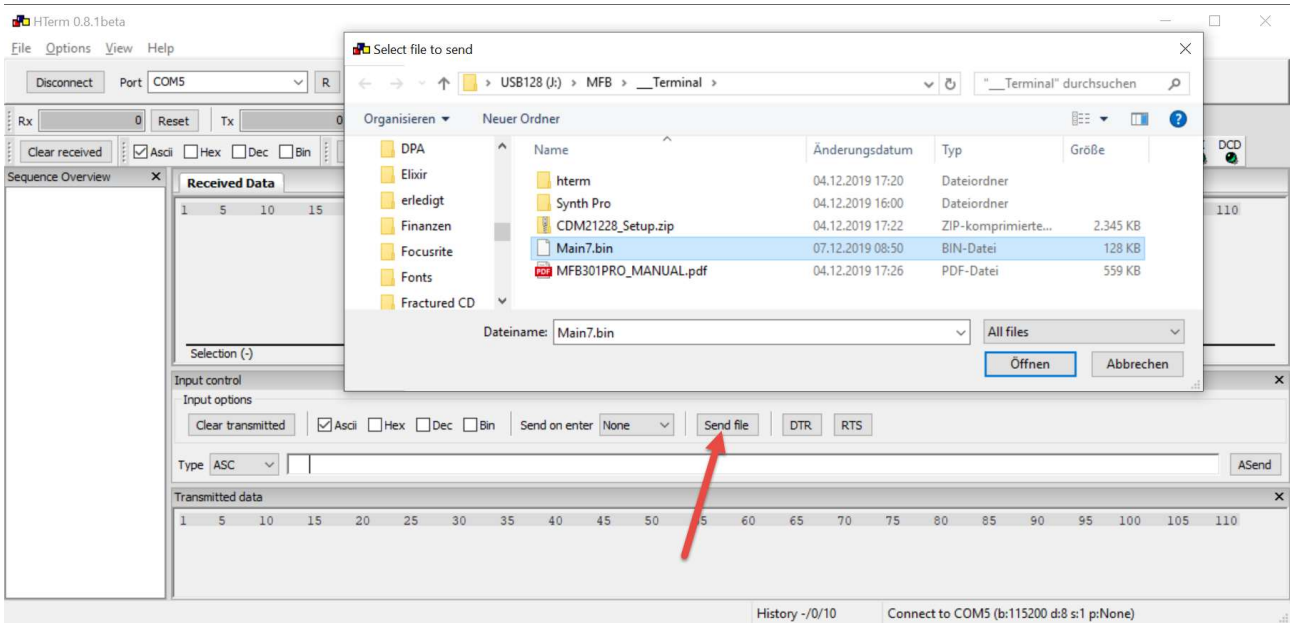
The MFB Synth Pro offers an integrated update function. To carry out such firmware-update you will need a corresponding .bin-file which will be provided to you by the MFB-support or on the MFB-website at irregular intervals.

Attention: Prior to any updates of the firmware or the voice processors, it is recommended to archive the presets and sequences of the unit to a computer. This way you can avoid unintentional loss of data. (To do so, please read the corresponding separate PDF-manual.)

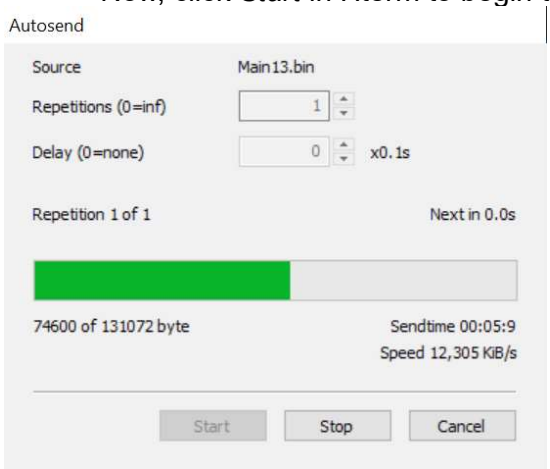
Now carry out the following steps...

3.1 Hterm (Windows)

- First make sure that the MFB Synth Pro has been successfully connected to the computer via USB and has been recognized by and connected to Hterm.
- Click *Send File* in Hterm.



- Now, navigate to the update-file **MainX.bin** and click *Open*.
- Switch off the MFB Synth Pro.
- Press *Preset* and *DCO/Tune* on the MFB Synth Pro and switch the unit back on.
- Release both buttons. After approx. five seconds, the two LEDs above the Enter-button should change their color from red to green.
- Make sure the MFB Synth Pro is still connected to your computer.
- Now, click *Start* in Hterm to begin the data transfer.



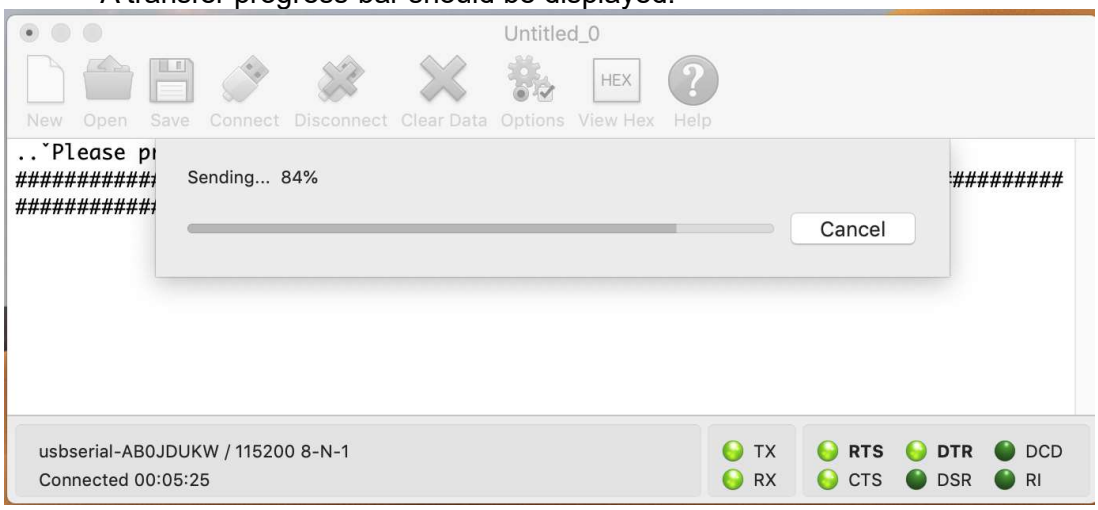
- A transfer progress-bar should be displayed.
- The MFB Synth Pro will automatically restart after a successful transmission.
- The start-display of the MFB Synth Pro should now indicate a newer firmware.
- The software should also confirm the success of the procedure.

3.2 CoolTerm (macOS)

- Make sure that the MFB Synth Pro has been successfully connected to the computer via USB and has been recognized by and connected to CoolTerm.
- Open up the update-file **MainX.bin** in a new window.
- Switch off the MFB Synth Pro.
- Press *Preset* and *DCO/Tune* on the MFB Synth Pro and switch the unit back on.
- Release both buttons. After approx. five seconds, the two LEDs above the Enter-button should change their color from red to green.
- Make sure the MFB Synth Pro is still connected to your computer. CoolTerm will display a corresponding message.



- Drag the update-file from the open window into the empty area in CoolTerm.
- A transfer progress-bar should be displayed.



- The MFB Synth Pro will automatically restart after a successful transmission.
- The start-display of the MFB Synth Pro should now indicate a newer firmware.
- The software should also confirm the success of the procedure.



4. Performing a voice update

The MFB Synth Pro offers an integrated function to update the processors of the individual voices – a procedure which is not related to the overall firmware. To carry out such voice-update you will need a corresponding .bin-file which will be provided to you by the MFB-support or from the MFB-website at irregular intervals.

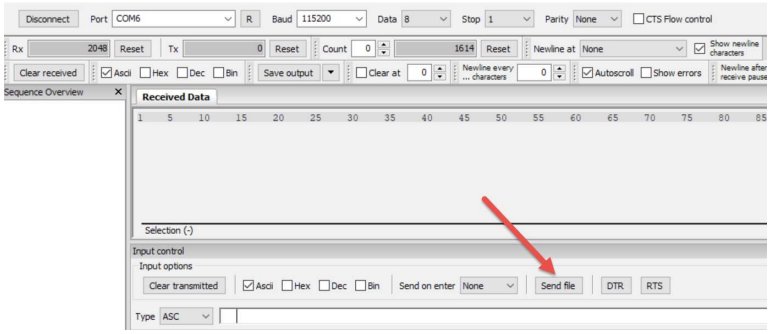
Attention: Prior to any updates of the firmware or the voice processors, it is recommended to archive the presets and sequences of the unit to a computer. This way you can avoid unintentional loss of data. (To do so, please read the corresponding separate PDF-manual.)

Now carry out the following steps...

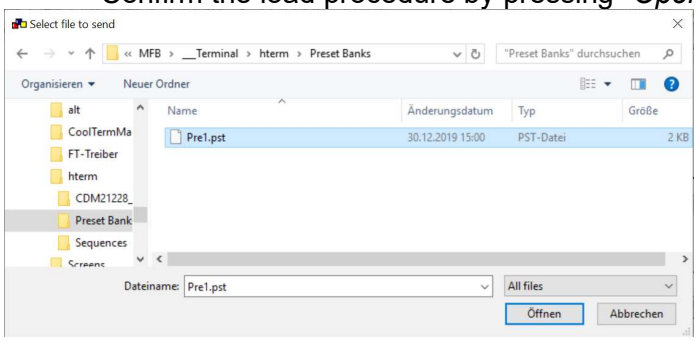
4.1 Transmit using Hterm (Windows)

First make sure that the MFB Synth Pro has been successfully connected to the computer via USB and has been recognized by and connected to the terminal software. Click *Clear Transmitted* in the terminal software to ensure that the software will only transmit preset data.

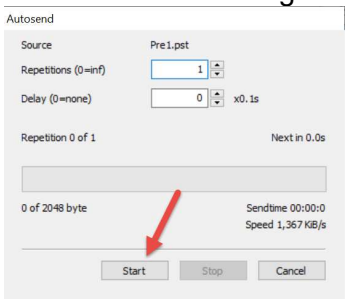
- Select the menu page *USB Transfer* on the MFB Synth Pro.
- Set the parameter *Update* to *Voices*.
- Both LEDs above the Enter-button will now be lit red-green.
- Press *Enter.* (The LEDs will be lit green.)
- Click "*Send File*" in Hterm.



- Confirm the load procedure by pressing "*Open*"



- In the following window "Autosend", press *Start* to begin the transfer.



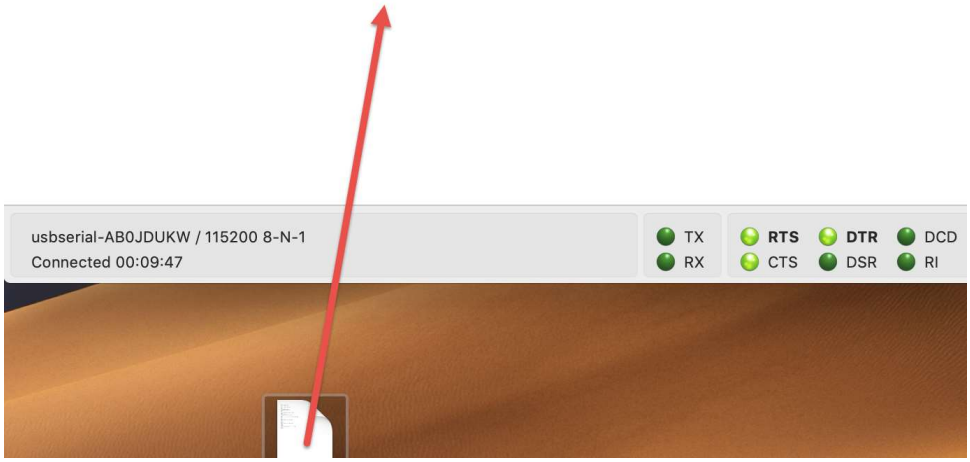
- Switch off the MFB Synth Pro now, wait a few moments and switch the unit back on.

4.2. Transmit using CoolTerm (macOS)

First make sure that the MFB Synth Pro has been successfully connected to the computer via USB and has been recognized by and connected to the terminal software. Click *Clear Data* in the terminal software to ensure that the software will only transmit voice data.

- Select the menu page *USB Transfer* on the MFB Synth Pro.
- *Set the parameter Update to Voices.*
- Both LEDs above the Enter-button will now be lit red-green.
- *Press Enter. (The LEDs will be lit green.)*
- Now drag the desired file onto the empty window area in CoolTerm.
- The file is now automatically being transmitted.





- Switch off the MFB Synth Pro now, wait a few moments and switch the unit back on.