

HX3.5 Update to Version 5.7x

1. Important
2. Driver Installation for older Windows versions
3. First Aid in Case of Update Errors

1. Important

Perform the update with the current version of the HX3 Manager, which you can find in the update directory. Please also read the current User Manual, both for the HX3 Manager and for your device.

To update the HX3.5 to the new firmware generation 5.6, a Windows 10 PC is best suited. Please note section **2. Driver Installation** when using older Windows versions. To use HX3 Manager on Mac, please follow the user manual.

Due to the extensive structural changes, **existing presets are unfortunately not retained** if they were created with firmware versions prior to 5.30.

A special note for users of organs with digital controls (switches, buttons) updating from a version prior to 5.7x:

Please note that starting with version 5.7, all switches and pushbuttons must have their functions assigned in order to continue to function. Please refer to the instructions in the HX3 Manager User Manual, Section **Assigning Controls**.

Take advantage of the HX3 Manager's new **Input Monitor**, which helps you quickly and easily locate the position of each control in the editor's assignment table.

Please note: If you use latching controls for voice presets, for example the original preset keys in connection with our Preset12-2 board, then you have to define them as switches in the editor before connecting them. To do this, set the parameter groups from #5200 and from #5216 to ON and **Store Group Values**. Otherwise a latched switch would be interpreted as a long key press and thus as a command to save a preset, which leads to a continuous loop and blocks the communication.

The first step is to update the DSP firmware. To do this, the HX3 system is put into DFU transmission mode. Windows requires a driver for DFU communication, which may need to be loaded and installed first (see section **2. Driver Installation** for older Windows systems).

The DREAM Updater for the DSP starts. DSP update is essential for the next update steps in HX3 Updater, so make sure the DSP firmware is properly installed.

Note for Mac users: The updater for the DREAM DSP does not work under Wine. Therefore, start the MacOS version of the updater DreamDFU_kbp from the same directory at this point to perform the DSP update.

Select the update file, "HX35_5504-FW_0123.dfu" (or version _1123, if you do not want GM sounds) and click on **Update Device**. After the update, terminate the DREAM Updater with **Abort**.

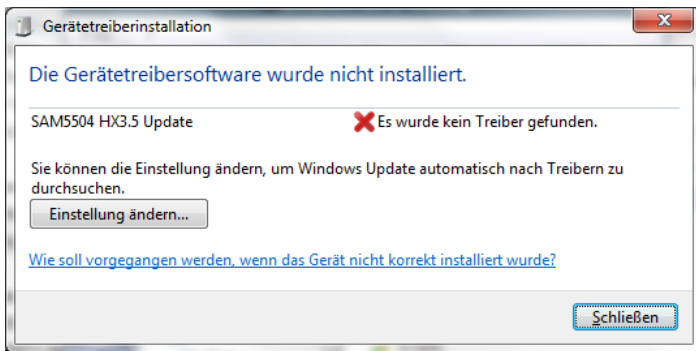
After the update, the 'Board Info' will appear with all new version numbers in the Log Window. Please also read also the new manual. A lot has changed.

2. DFU Driver Installation on Windows XP and 7

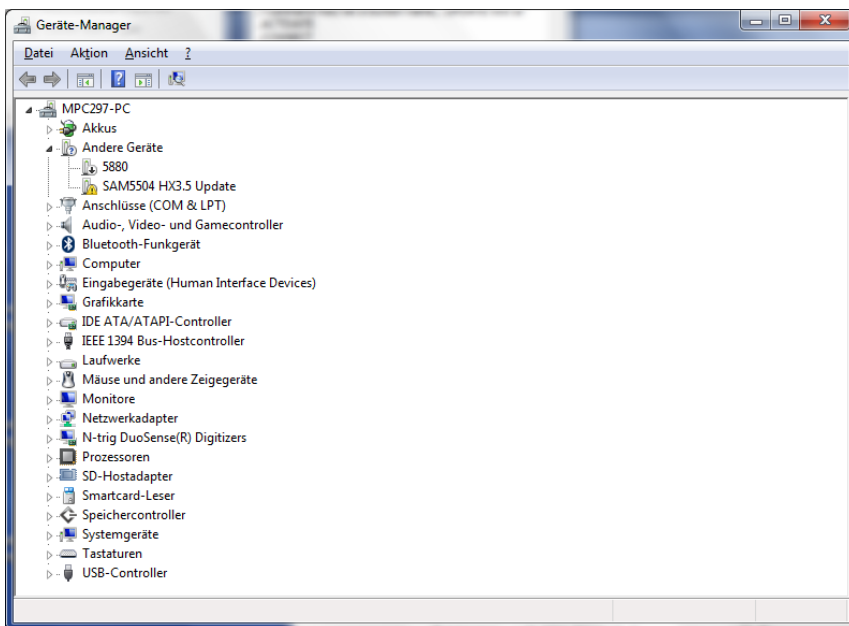
Please download the DFU_driver_XP.ZIP file from our update server (<http://keyboardpartner.remotewebaccess.com/Files/index.php?dir=Current%20Firmware>) and unzip files to your local harddisk.

When the DreamDFU utility is started by the HX3 Updater, the DSP update process needs a Windows DFU driver to be installed. On Windows 10 systems it is supplied with Windows, so updating the DSP automatically switches from USB/MIDI to USB/DFU mode.

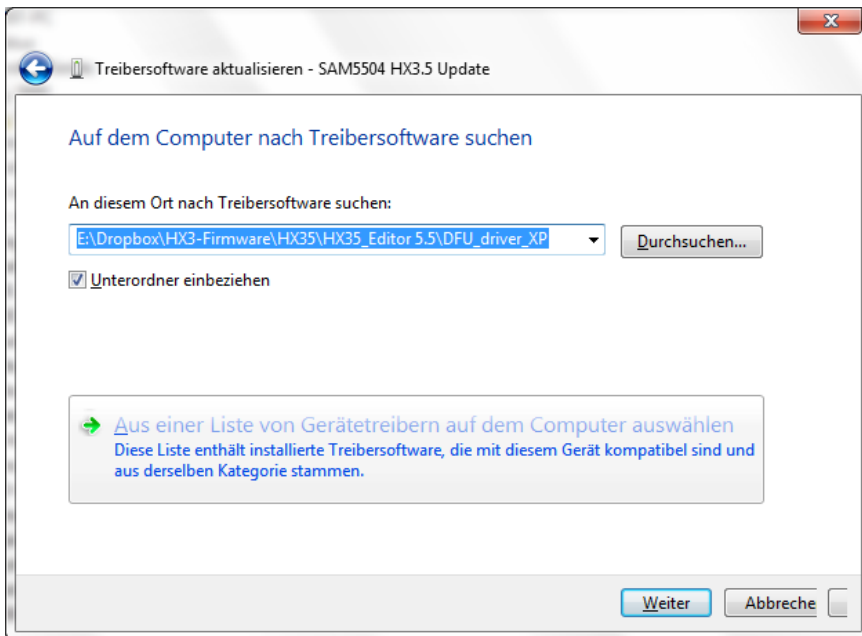
If DreamDFU displays a blue **Searching Device** message, proceed as follows:



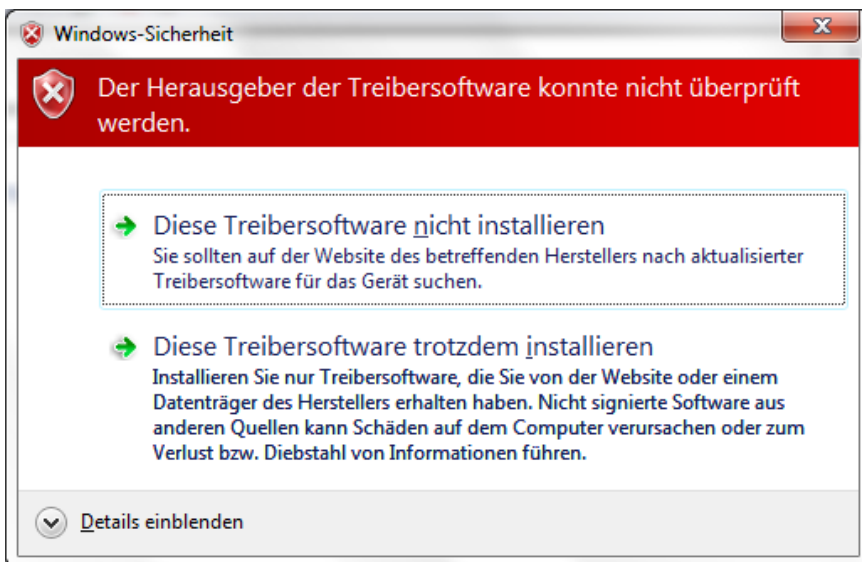
Windows will complain about a missing driver for „SAM5504 HX3.5 Update“. Open Windows Device Manager.



The „SAM5504 HX3.5 Update“ device will be displayed with a yellow exclamation mark. Right-click on this entry and select „Update Device Driver“ (or similar, depends on language version). Let Windows ask for the driver's location, direct it to the „DFU_driver_XP“ folder you just unzipped.



Windows security feature might complain about a non-signed driver. **Choose „Install anyway“ (lower entry).**



After driver installation, an USB controller named „DREAM USB DFU using WinUSB“ device should appear in the device manager's list.

Proceed now with the DSP update by the DreamDFU utility.

3. First Aid in Case of Update Errors

The update process has been redesigned, so that erroneous transfers do not lead to a seemingly "dead" device. First, firmware and EEPROM content are transmitted and activated. HX3 then automatically launches the new firmware and loads FPGA and scan driver into a shadow memory. The data is only copied to the main memory when file checksums match the stored data.

In the past, disconnections or failures have sometimes resulted in a non-functioning FPGA or scan driver. Then it is no longer possible to communicate with the device via USB, since the communication requires both.

Transmit faults are often caused by **poor USB connections** (eg. hubs or insufficient cables) or **ground loops** (desktop PC, mixer, PA). Disconnect all audio cabling on HX3 except USB and power supply. „Floating“ analog inputs (unconnected drawbars, pots) may also cause errors. HX3 Updater will address this issue by disabling analog inputs temporarily.

In order to bring HX3 back to life (prerequisite: at least the welcome message should appear on the display), proceed as follows:

- You need a USB to serial adapter cable (FTDI cable) or a SD card adapter, as offered in our shop. **Plug Jumper J4 CONFDIS** on the HX3.5 mainboard (you can use one of the MIDI Config Jumpers temporarily). HX3 should then start with the message "FPGA Fault" on the display.
- Option 1: Create an SD card with the latest updates and start HX3 with the inserted card. As soon as the SD card update is complete, remove J4 and restart HX3.
- Option 2: Connect HX3 to your PC via the USB serial adapter cable (FTDI cable) and start the updater with „Connect via FTDI device“. Perform update. When finished, remove J4 and restart HX3.

The Scan Driver may not match your device afterwards, but the device should be accessible via USB-MIDI again. Then, if necessary, the appropriate scan driver can be installed.

If only white boxes appear on the display, you should send in your device to have the firmware reinstalled at no cost.

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