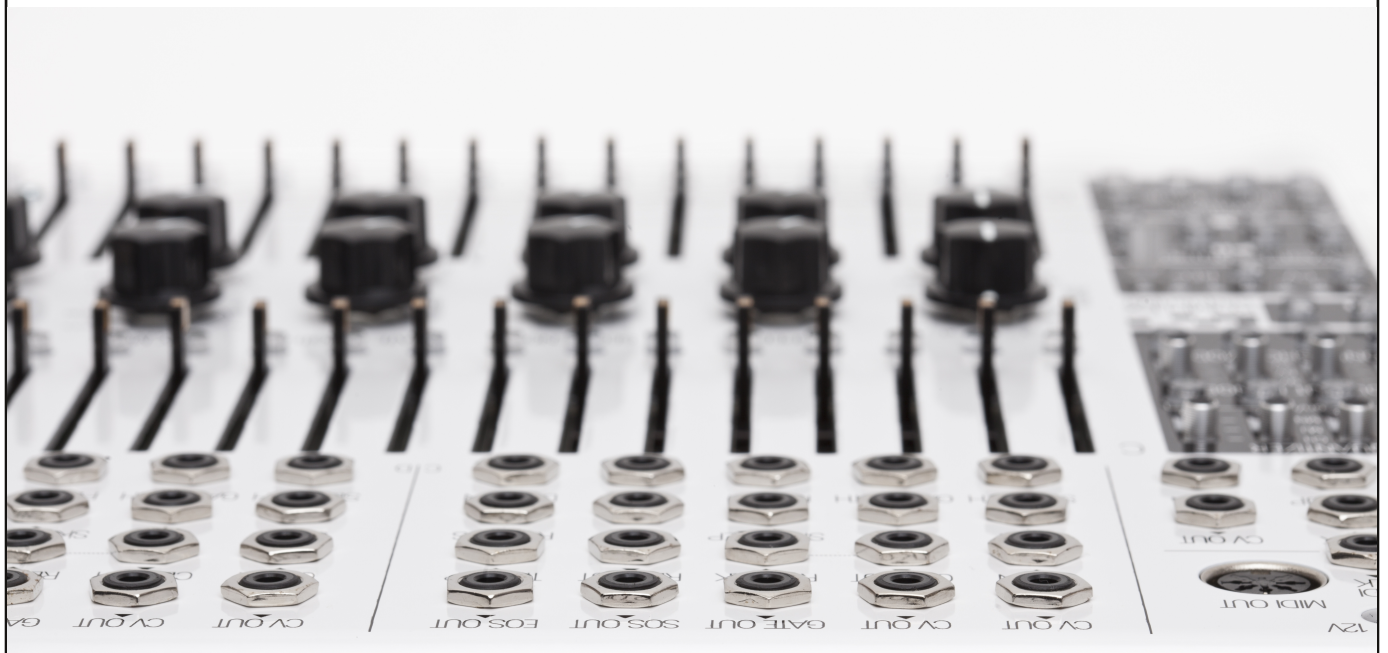




KOMPLEX Sequencer Firmware Updates

How and why to update your firmware



KOMA ELEKTRONIK

KOMPLEX SEQUENCER – DESIGNED AND BUILT IN BERLIN, GERMANY

The KOMA Elektronik Komplex Sequencer features a *firmware upate mode* which enables the user to conduct a firmware update himself. The firmware is the software running inside the hardware sequencer controlling its features, inputs and outputs. Sometimes the firmware is also called operating system. Through entering the update mode you will be able to directly update your firmware in order to gain access to new features, improve performance or simply enjoy bugfixes. The updating procedure is technically similar but practically different for updating the four sequencers - which need to be updated individually - the CV Recorder and the MIDI functionality of your Komplex Sequencer.

In this manual we will show you all three updating techniques. Depending on the type of firmware update intended to be deployed (Sequencers, CV-Recorder or MIDI) you will chose the correct technique and update that particular part of your Komplex Sequencer.

Komplex Sequencer Firmware Updates for Sequencers A – D

Preparations before updating your firmware:

- Download the latest Komplex Sequencer firmware from the KOMA Elektronik homepage.
- Extract all files into a folder.
- Open an audio program and load the first .wav file (Komplex_Sequencer_X_X_A.wav).
- Crank up the volume.

Updating the firmware of your sequencers:

1. Unplug all cables from the patch bay and power off the unit.
2. Connect a cable from your audio output to the START input of sequencer A's patch bay. Always plug in the cable to the audio output first and then the other end into the START input. The reason for doing this is that if you do it the other way around the plugging procedure itself could be interpreted as the first few bits of the updating process and this will lead to an unsuccessful update.
3. Press Master Play and Master Stop simultaneously, keep holding them and insert the power cable. When you insert the power cable keep the two buttons pressed and the blue LEDs of the One-Shot Mode buttons of all four sequencers will blink twice. The individual Start button LEDs will be steadily lit when all sequencers are ready to accept the new firmware.
4. Once all four sequencers are ready to accept the new firmware, play back the first audio file - Komplex_Sequencer_X_X_A.wav. When you start playing the .wav file, the corresponding Start button LED will go unlit until the updating process is finished.
5. Wait until the whole file has been fully played back. After a successful update the Start button LED will blink twice, the updated sequencer will restart. The Stop button LED will be lit after startup.
6. If problems occurred, the Stop button LED will start to blink rapidly. In that case unplug the power cable, go into firmware update mode (see step 3) and try again after reading through the

troubleshooting suggestions below.

7. Unplug the audio cable from the START input of sequencer A and plug it into the START input of sequencer B. Repeat the procedure starting at Step 5. Use `Komplex_Sequencer_X_X_B.wav` for updating sequencer B and so on until you have successfully updated all four sequencers.

8. After a successful re-flash of all four sequencers be sure to power down and up the unit again. Check your firmware version by pressing and holding STEP and then pressing GATE. On all four sequencers you will get visual feedback of which firmware version is installed.

The steadily lit Step Select Buttons represent the CV/Gate Firmware update version before the dot (e.g. when the first step is lit, it means 1.X), while the flashing lights represent the version behind the dot (e.g. when the third button is flashing, its Version 1.3).

What could go wrong:

- It could be that the audio volume is too low.
- It could be you have a bad audio connection or cable.
- Make sure you play back the correct file to the correct sequencer.
- In some very rare cases headphones outputs can create problems when you insert a mono cable because one of the two channels will then be connected to ground. For this reason we recommend either using a stereo cable or a Y-splitter cable to connect your sound card / audio interface to your Komplex Sequencer.

BE CAREFUL! The sound of the firmware update file is a very harsh audio file and could damage your ears if you listen to it on full volume! KOMA Elektronik will not take responsibility for any damages resulting from wrong handling of your audio device.

Be sure to also check out our firmware updating tutorial videos on our youtube channel.

Komplex Sequencer Firmware Updates for CV Recorder

Preparations before updating your firmware:

- Download the latest Komplex Sequencer firmware from the KOMA Elektronik homepage.
- Extract all files into a folder.
- Open an audio program and load the Komplex_CV-Recorder_X_X.wav file.
- Crank up the volume.

Updating the firmware of your CV-Recorder:

1. Unplug all cables from the patch bay and power off the unit.
2. Connect a cable from your audio output to the Bank Up input of the CV Recorder's patch bay. Always plug in the cable to the audio output first and then the other end into the Bank Up input. The reason for doing this is that if you do it the other way around the plugging procedure can be interpreted as the first few bits of the updating process already and this will lead to an unsuccessful update.
3. Press Play and Record buttons of the CV Recorder simultaneously, keep holding them and insert the power cable. When you insert the power cable keep the Play button will blink twice and then stay lit. The CV Recorder is now ready to accept the new firmware.
4. Play back the audio file (Komplex_CV-Recorder_X_X.wav). When you start playing the .wav file, the Play button LED will go unlit until the updating process is finished.
5. Wait until the whole file has been fully played back.
6. After a successful update the Play button LED will blink twice, the CV Recorder will restart itself.
7. If problems occurred, the Play button LED will start to blink rapidly. In that case unplug the power cable, go into firmware update mode again (see step 3) and try again.

What could go wrong:

- It could be that the audio volume is too low.
- It could be you have a bad audio connection or cable.
- Make sure you play back the correct file.
- In some very rare cases headphones outputs can create problems when you insert a mono cable because one of the two channels will then be connected to ground. For this reason we recommend either using a stereo cable or a Y-splitter cable to connect your sound card / audio interface to your Komplex Sequencer.

BE CAREFUL! The sound of the firmware update file is a very harsh audio file and could damage your ears if you listen to it on full volume! KOMA Elektronik will not take responsibility for any damages resulting from wrong handling of your audio device.

Komplex Sequencer Firmware Updates for MIDI

Preparations before updating your firmware:

- You need a program that allows you to send System Exclusive (SysEx) MIDI files. We recommend MIDIOX (Windows), simple sysexer (Linux / Ubuntu) or Snoize SysExLibrarian (Mac OS X).
- Download the latest Komplex Sequencer firmware from the KOMA Elektronik homepage.
- Extract all files into a folder.
- Start up your Komplex Sequencer and connect a MIDI cable from the MIDI IN jack of the sequencer to the MIDI OUT jack of your MIDI interface.

Updating the MIDI firmware:

1) Refer to your SysEx program's instructions on how to send SysEx data from your interface to your sequencer and send the Komplex_Bootloader_init.syx file via MIDI. Apart from the cable there are no more necessary preparations to be made on the sequencer side. The transfer process will take less than a second.

After successfully receiving and processing this file the Komplex sequencer is now in MIDI firmware update mode. You can prove if your Komplex sequencer is in MIDI firmware update mode if the MIDI CLK output sitting between the two MIDI jacks sends out a logic HIGH, which can be seen as a constant +5V voltage at this output.

2) When the sequencer is in MIDI update mode after the procedure described above, load the newest MIDI firmware file Komplex _MIDI_X_X.syx into your SysEx program and send it to the Komplex sequencer as well. Depending on your SysEx program and MIDI settings this can take up to 30 seconds.

3) After successfully updating the MIDI firmware, the MIDI CLK output should go LOW again which is equal to 0V.

4) You have now successfully updated your MIDI firmware, restart your sequencer.

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