K0MPLEX SEQUENCER — USER MANUAL

KOMA ELEKTRONIK

DEAR KOMA USER,

Thank you for purchasing the KOMA Elektronik Komplex Sequencer!

Some machines start with crazy ideas on paper but make much more sense when they are realised.

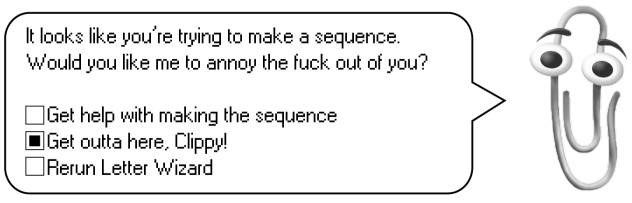
The Komplex Sequencer is one of those machines: four sequencers that can cross modulate each other and the possibility to control all features over CV—why not?

Here at KOMA, we love sequencers. It has been a key tool for many musicians throughout the years, ranging from techno producers to experimental ambient artists, all using its repetitive character to create innovative music. Now, it's time for the ultimate sequencer, one that has so much power and connectivity, giving you the possibility to transcend the sequence from a repeating pattern into an ever evolving cadence of sound.

The Komplex Sequencer has no screens or submenus; all features have their own dedicated controls, inputs and outputs on a large 87-point front-panel patch bay inviting you to instantly interact with the machine.By patching both internal and external CV sources between the four individual sequencers and the CV recorder, you can "sequence the sequence" and create extremely complex patterns that further usual repetitious loops.

No matter if you have a small modular system or a studio filled with vintage synths, the Komplex Sequencer is compatible with almost all synthesizers that accept CV/Gate and/or MIDI. Open up a whole new world of playability and creativity, starting where all other sequencers stop.
Now, hook the sequencer up and hit play!

All the best from Berlin,
The KOMA Elektronik Team



GETTING STARTED

1. UNPACK YOUR MACHINE
The package contains the Komplex Sequencer itself, a dust cover, this manual and the power supply unit.
2. POWER UP
Use only the included 9V 2A DC center negative power supply included. The sequencer turns on automatically when it receives power.
3. CONNECT IT
Plug the CV OUT of the Komplex to your CV IN (V/oct, pitch or fm) of your synthesizer and the GATE OUT to the GATE or TRIGGER IN. Connect an external clock to the CLOCK IN of the Komplex if you are using another device as the master clock.
4. PLAY
Press PLAY and start moving the sliders and adjusting other parameters to begin creating a sequence.
5. PROGRESS
Make it more complex by patching and chaining the other sequences into one another! Remember to connect the CLOCK OUT of the running sequence into the others' CLOCK IN so they are in time with each other.

TECHNICAL SPECIFICATIONS

CASING
Powder coated aluminum casing, silk screened printing and wooden side panels.

DIMENSIONS
46.2 cm x 29 cm x 4 cm (L x W x H) 18.2" x 11.4" x 1.6" (L x W x H).

NET. WEIGHT
3.2 Kg / 8.8 lb

SHIPPING WEIGHT
4.5 kg. / 9.9 lbs including power adapter and instruction manual.

POWER REQUIREMENTS
9V 2A DC center negative power adapter. Only use the KOMA adapter shipped with the unit.

IMPRINT

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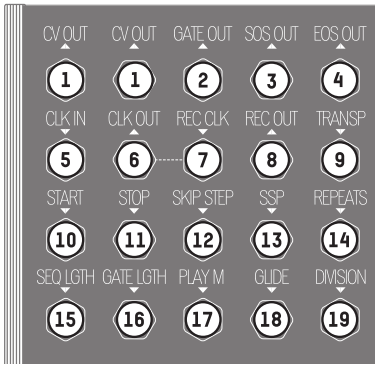
PATCHBAY INPUT & OUTPUT



INPUTS ▼
OUTPUTS ▲

*Inputs are 0-5V but can also accept bipolar signals. If the input has a corresponding knob, then the knob becomes the bias of the input.

1 CV OUT (Output)
The CV output of the sequencer.

2 GATE OUT (Output)
Outputs a positive gate per step where gate is engaged.

3 SOS OUT (Start of Sequence Output)
Sends a pulse every time a Start signal is recieved by the sequencer.

4 EOS OUT (End of Sequence Output)
Outputs a pulse every time the sequence hits the end of its last step.

5 CLOCK IN (Input)
Set the speed of sequencer via an incoming clock signal. Overrides the SPEED rotary control.

6 CLOCK OUT (Output)
Outputs the clock per sequencer as set by SPEED or incoming clock.

7 REC CLK (Input)
Set the speed of the corresponding CV Recorder output via an incoming clock signal. The CLOCK OUT is normalled to this input.

8 REC OUT (Output)
CV output of the corresponding CV Recorder bank (A, B, C or D).

9 TRANSP (Input)
Offsets the whole sequence's CV output by the amount of CV applied.

10 START (Input)
When this input receives a positive pulse, the sequence starts playing/pauses or reset depending on the stop/reset mode setting.

11 STOP (Output)
An incoming pulse resets the sequence back to its sequence start point and stop the sequence.

12 SKIP STEP (Input)
When positive voltage is applied to this input, the step is skipped in accordance with the SKIP MODE setting.

13 SSP (Input)
Sets the sequence start point.

14 REPEATS (Input)
Sets the amount of repeats for steps with repeat active with CV.

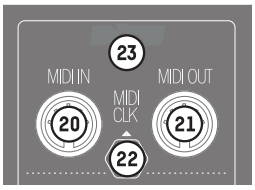
15 SEQ LGTH (Input)
Sets the sequence length.

16 GATE LGTH (Input)
Sets the gate length of the sequence of the current step.

17 PLAY M (Input)
Select the play mode of the sequence.

18 GLIDE (Input)
Control the glide time.

19 DIVISION (Input)
Set the division of the SPEED or CLOCK IN.



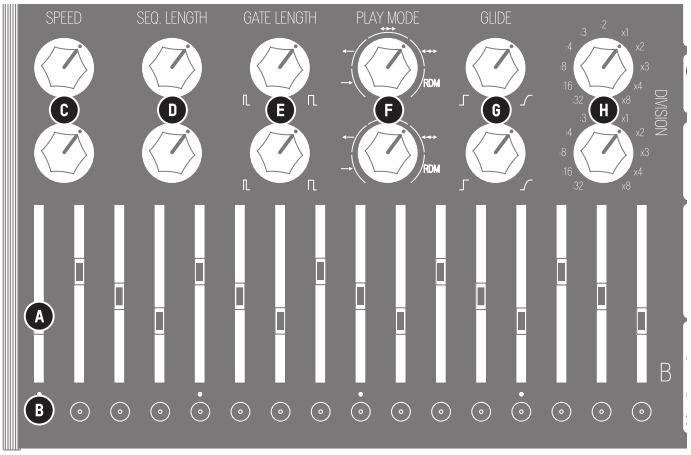
20 MIDI IN (Input)
Receives incoming MIDI clock.

21 MIDI OUT (Output)
Sends MIDI information as assigned by the four sequencers.

22 MIDI CLK (Output)
The MIDI-to-analog clock out sends a trigger (+5V) after 24 MIDI clock pulses are received corresponding to 1 clock trigger per quarter note.

23 DC 9V (Power Adapter)
Only use the KOMA adapter shipped with the unit. The Komplex powers on automatically when plugged in.

PER SEQUENCER CONTROLS



A CV Slider
Sets the output amount of CV per step.

B Step Select Button
Multi-function control for per step selection of the SECTION CONTROLS.

C SPEED
Sets the base tempo of the sequencer.

D Seq Length
Sets how many steps the sequence is long. The step select buttons show how long the sequence is when the control is touched.

E Gate Length
Sets the lenght of the gate signal coming from the GATE OUT.

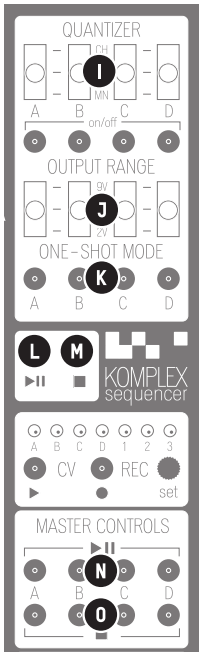
F Play Mode
Sets the order in which the steps are played: Forward, Reverse, Ping Pong, Ping Pong Reverse and Random.

G Glide
Sets the portamento time for steps in which glide is active. Can be used for acid-style slides!

H Division
Sets the division of the SPEED or incoming clock at which the sequencer will run.

I Quantizer
Scales the sequencer CV output to V/oct, selectable in chromatic, major and minor scales. Use the on/off buttons to switch the quantizer on or off per channel.

J Output Range
Sets the voltage range of the CV Output, choose between 2, 5 and 9 volts.



K One Shot Mode
When engaged, the sequencer only runs once until PLAY is pressed again.

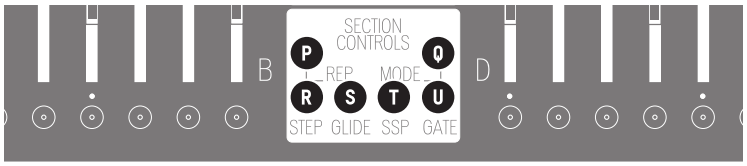
L Play / Pause
Starts the sequencer or pauses it at its current position until started again. (Start/Stop Mode settigs applies.)

M Stop
Stops and resets the sequence to its sequence start point.

N GLOBAL Play / Pause
Starts all 4 sequencers or pauses them at once to their current position until started again. (Start/Stop Mode settigs applies.)

O GLOBAL Stop
Stops and resets all sequences at once to their corresponding sequence start points.

SECTION CONTROLS



Set the values for the section controls with the Step Select Buttons as mentioned above.

P Repeats (Green)
Use the step select buttons to select which steps will repeat. Once a step is selected, the position of the blinking step select button will indicate how many times it will repeat. Press step 1-16 to set how many repetitions the step will make.

Q Mode
Press this button to access the mode menu. Here, you can change the step skip behaviour, repeat mode, unipolar/bipolar CV output mode and MIDI parameters. For more information, check out the MODE MENU section on the other side of this manual!

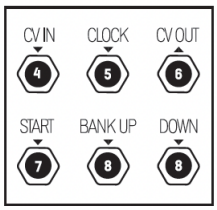
R step (Orange)
The step select buttons indicate which steps are active. Ones that are deselected behave as set in the SKIP STEP MODE MENU.

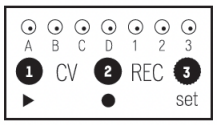
S GLIDE (Orange)
When a step is selected, the setting of the GLIDE control is applied.

T SSP (Blue)
The step select button indicates the sequence start point.

U Gate (Blue)
Sets which steps output a gate at GATE OUT.

CV RECORDER





1 PLAY
Starts playing the selected CV Bank.

2 RECORD
When engaged, the CV Recorder records the incoming CV signal to the selected CV Bank.

3 SET
Rotary control selects which CV Recorder Bank is being played at the main CV Recorder output (6) and being recorded to at the main CV Recorder input (4).

4 CV IN (Input)
Send CV here to be recorded into a CV Recorder Bank. This is only for banks 1-3

5 CLOCK (Input)
Set the speed of the CV Recorder via an incoming clock signal.

6 CV OUT (Output)
The CV output of the selected CV Recorder Bank. Banks A-D- get sent via REC OUT jacks in the respective sequencer patchbay and can a play simultaneously. Banks 1-3 get sent via CV OUT (6), in the CV recorder patchbay section.

7 start (Input)
When this input receives a positive pulse, the selected sequence starts playback.

8 BANK UP/DOWN (Input)
Send a trigger (+5V) at these inputs to move the selected bank one position up or down.

CV TABLES

The following tables provide a precise range of voltages to change between different parameters.

Table for Division

:32	:16	:8	:4	:3	:2	x1	x2	x3	x4	x8
0-0.45V	0.45-0.91V	0.91-1.36V	1.36-1.82V	1.82-2.27V	2.27-2.73V	2.73-3.18V	3.18-3.64V	3.64-4.1V	4.10-4.54V	4.54-5V

Table for Play Mode

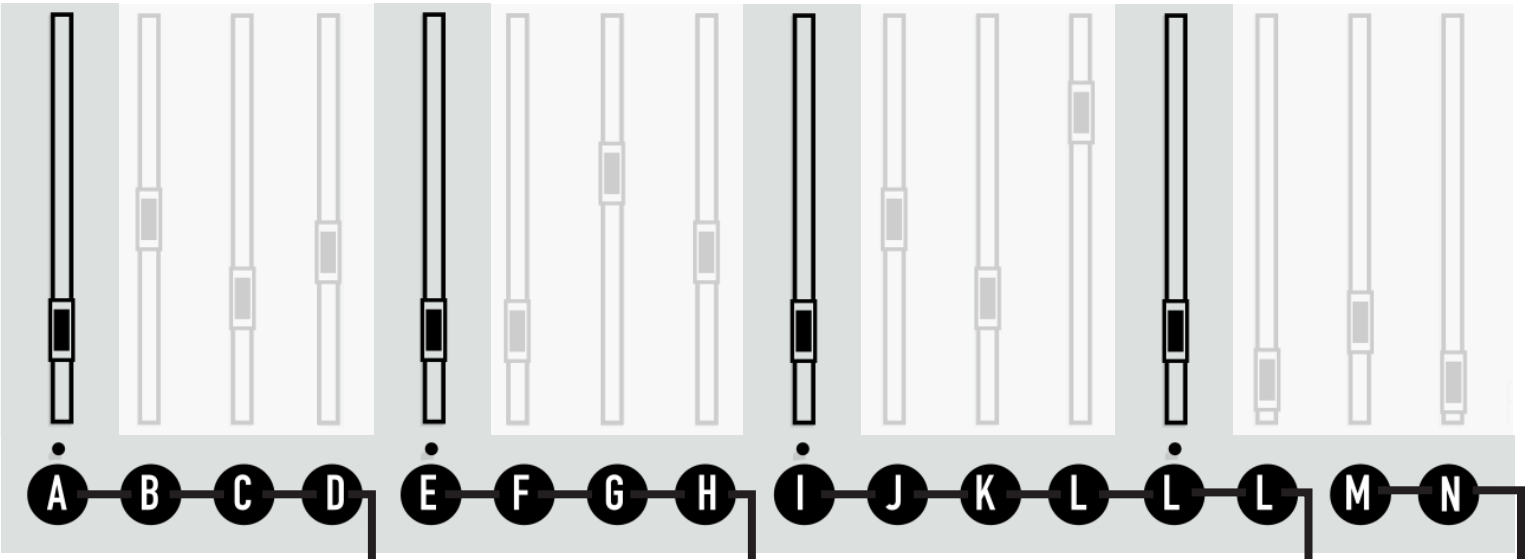
Forward	Reverse	Ping Pong	Ping Pong Reverse	Random
0-1V	1-2V	2-3V	3-4V	4-5V

Table for SSP, Repeats and SEQ Length

1	2	3	4	5	6	7	8
0 0.31V	0.31-0.63V	0.63-0,9V	0,94-1.25V	1.25-1.56V	1.56-1.88V	1.88-2.19V	2.19-2.5V

9	10	11	12	13	14	15	16
2.5-2.81V	2.81-3.12V	3.12-3.44V	3.44-3.75V	3.75V 4.06V	4.06-4.38V	4.38-4.69V	4.69-5V

MODE MENU



A Skip Step Behaviour
When step select button A is unlit, the steps that are deactivated in STEP MENU are skipped. When it is lit, the previous step is held for the period of the skipped step.

B Repeat Mode
When this button is unlit, simple repeat mode is active. The step length does not change, and the steps repeat as many times as set. When this button is lit, ratcheting repeat mode is active. The repeats fit into 1 step length, i.e., with repeats set to 4, the new step length is a 1/4 of the original step length but with 4 gates.

C Unipolar / Bipolar Output
When this button is unlit, the CV outputs are unipolar. When lit, the CV outputs are bipolar. 0 Volts then is in the middle of the fader.

D SOS Trigger Mode
Defines whether a trigger at the SOS Output is generated every time a start signal is received (by pressing the play button or sending a trigger to the start in, button unlit) or every time at the beginning of the very first step in the played sequence (button lit).

E EOS Trigger Sequence
Defines whether a trigger at the EOS Ouput is generateci at the beginning of the very last step in the sequence (button lit) or at the end of this step (button unlit).

F Stop / Reset Mode
Switching between the reset and stop-mode will replace the pause-function with a reset function if the corresponding mode is activated.In this case a press on the play-button/ a trigger on the START input will start a stopped sequencer. Every following press/trigger will reset the sequencer to the start step but not stop it.

G Swing Mode
This button gives access to the Swing sub menu. By pressing one of the buttons between steps 1 and 6, a certain amount of swing is selected.
The following list shows the amount of swing stated as the percentage of time the dotted note occupies:
Step 1: 50% (no swing)
Step 2: 54%, Step 3: 58%
Step 4: 62%, Step 5: 66%
Step 6: 71%
If swing of 54% or higher is selected, the button below Step 7 will be lit in the Mode menu.

H MIDI Base Note Select
Pressig this button gives access to the Midi-Base note menu. By pressing one of the buttons between steps 1 and 10, a certain base note is selected: Step 1: C0, Step 2: C1, Step 3: C2, Step 4: C3, Step 5: C4 etc.

I Analog/MIDI Clock Division
When step select button 9 is unlit, the sequencer's Division knob operates normally when synced to an analog clock. When set at 4, the sequencer advances one step per trigger. However, when syncing the sequencer via MIDI, the MIDI Clock jack outputs one pulse per MIDI clock pulse. Set step select button 9 to lit so the Division knob is scaled and operates normally as above when synced via MIDI. Internal scaling is referred to 24 ppqn MIDI-Clock.

J MIDI Start/Stop Input
When this button is unlit, the sequencer does not receive MIDI start and stop information. When it is lit, the sequencer receives MIDI start and stop.

K MIDI On/Off
When this button is unlit, the sequencer's MIDI Out is turned off. When it is lit, its MIDI Out is turned on.

L MIDI Mode
When step select button 12 is lit, the sequencer sends pitch via MIDI. When 13 is lit, it sends velocity. When 14 is lit, it sends a CC message. Only one button can be selected at a time, and it is not possible to deactivate all.

M MIDI Channel
To select the MIDI channel per sequencer, press this button. Then select the MIDI channel of your choice by selecting a step 1-16.

N MIDI CC Number
Press this button. Then select the CC number with the step select buttons as described: the CC numbers range from 0 to 127. The 3 digits are composed with two numbers referred to as x1 x2.The 16 step select buttons correspond to numbers 0-15. First, select the value of x1 (possible numbers 0-12). Then select the value of x2 (possible numbers 0-9). For example: 17 is x1 = 1, x2 = 7; 107 is x1 = 10, x2 = 7. Invalid CC numbers will not be accepted).

ENTER MODE MENU