

User Manual

Z8000 Matrix Sequencer/Programmer

Design - Gur Milstein

Special Thanks

Alessandro Cortini

Andreas Schneider

Andreas Wetterberg

Bobby Voso

James Cigler

Mark Pulver

Matthew Davidson

Matrix

Richard Devine

Shawn Cleary



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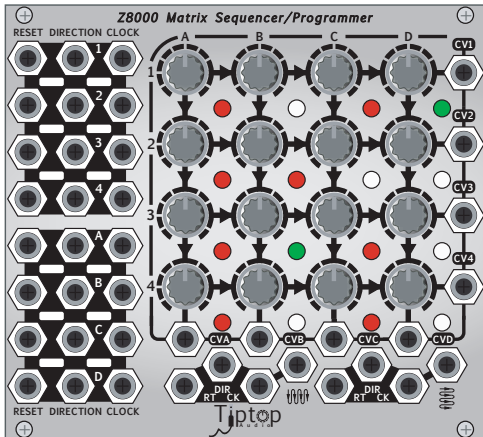
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Introduction.

The Z8000 Matrix Sequencer is a powerful tool in a small package. Contained within it's structure are the following:

- Four 4 step sequencers on the horizontal (1/2/3/4).
- Four 4 step sequencers on the vertical (A/B/C/D).
- One 16 step sequencer aggregating all four horizontal 4 step sequencers in order from top to bottom, left to right ().
- One 16 step sequencer aggregating all four vertical 4 step sequencers in order from left to right, top to bottom ().

Thus, giving you a total of ten sequencers in all.



Inputs/Outputs.

Each and every sequence has its own individual CV output as well as Clock, Direction & Reset inputs. The grouped 4 step sequencers each share a normalized connection to the Clock. Allowing, for instance; a single clock to guide all four horizontal 4 steps from only one connection. The same applies for the four vertical sequences. (ex: plugging in a new timing signal into the third Clock while the first Clock still has its jack in place would make sequences 1 & 2 of the group run at a separate rate than sequences 3 & 4.) On the other hand Direction & Reset Inputs are not normalized in order to keep these functions independent. The Tiptop Stackcable is ideal to be used to distribute a Reset signal to many sequences at once.

Reset is simple. A gate high signal triggers that particular sequencer to reset back to step one.

Direction works so that with a gate low the sequencer travels forward. A gate high signal dictates the sequencer travels backwards.

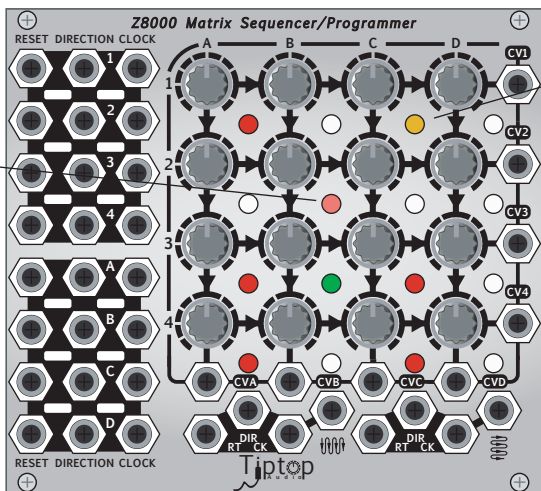
The Z8000 has a very fast response time and will be triggered by long and even very short pulses. The electrical noise caused by inserting a plug into a normalized clock input might cause some of the sequencers to step, **this behavior is normal**. A cascaded Reset signal using Stackcables or mults will reset all sequencers in a group back in line if desired.

The Z8000 inputs are ideally to be used with pulses but definitely are not restricted to pulses only.

LEDs.

The Z8000 uses multicolored LEDs to help with visual feedback. The red lights are assigned to the eight 4 steps, the green lights are assigned to the two 16 steps & lastly the yellow lights engage when a 4 step red light & 16 step green light intersect that specific LED. In addition to that, when two 4 step sequencer red lights engage the light intensity of that led increases by about 35%.

Whether the sequencer is clocked or not, its knobs and lights are still on and functioning. (ex: the red led of step A of sequencer 1 is on, plug the CV1 out and turn that knob, you will hear that the step is “alive”.



Applications.

The Z8000 is very simple to use but can create some extremely complex control patterns. Each sequencer can be made to step very slow or very fast up to audio rate. Each CV output has the capability to drive many inputs. One of the fun applications with the Z8000 is to patch one of the sequencer's CV out back to the clock frequency input, creating a "swing" in the movement from step to step. The Z8000 has 10 CV outputs that can modulate 10 parameters in your modular, having them change polyrhythmically, making things move.

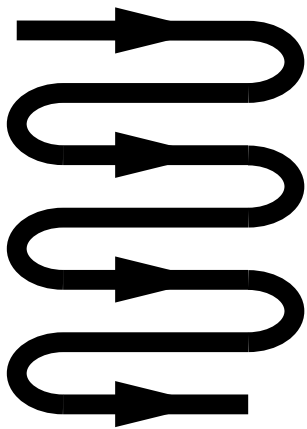
Although the word 'sequencer' is mostly known as playing a sequence of tones (controlling the pitch of a VCO), the Z8000 is by no means restricted to doing only that. The Z8000 is a note sequencer but also a modulation sequencer and a programmer of events that happen in a predetermined time.

The Z8000 modular structure makes it interesting to combine with various clock modifiers such as Clock dividers, Clock sequencers, etc.

The Z8000 will work well with Quantizers to create melodies within a scale and analog switches to route the CV outs to different destinations on your system.

Trigger delays or EGs can be used to phase the clock signal and are very useful in creating a "laid back", off the grid groove or feel.

We hope you will enjoy your Z8000.



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The logo for Tiptop Audio. The word "Tiptop" is in a bold, sans-serif font. The letter "i" has a dot that is a small black circle with a white center, resembling a speaker or a plug. The letter "o" is replaced by a clock face with a single vertical line for the hour hand. Below "Tiptop" is the word "Audio" in a smaller, spaced-out sans-serif font. A stylized audio cable with a wavy line representing the cord is positioned to the left of the "Tiptop" text.