

Model 220 Polyphonic Touch'n'Run Voltage Array

Firmware version 1.04

Up-to-four-voice truly polyphonic, freely tunable and scalable, pressure sensitive musical keyboard controller with vast sequencing capabilities. The design is analogue so that no voltages are being digitized and the internal microcomputer just traces the finger touches and routes them through the analogue circuitry. There's no keyboard scanning either, all keys work in realtime having their dedicated logical channels. Control buttons are arranged in coloured groups for user convenience.

HOLD - Memorizes activated keys and reactivates them when pressed again.

Poly, Duo, Mono - Switches the priority logic into respective mode that becomes some kind of global prism for key interpreter engine throughout the system. Each mode has several submodes selectable by holding button in question and touching appropriate key.

hint - For current firmware version, there're three submodes for each mode, located under the 0, 1, 2 keys.

Random, Shuttle, <- , -> , Actikey - Defines the directional behaviour of the sequencer/arpeggiator, applicable to almost every situation, with very few exceptions. The fifth direction Actikey dictates to the keys to be played exactly in the order they were activated. To get into sequencer one of the following modes has to be recalled: Actikey, Zoning or Combo.

hint - When in Actikey, user can easily switch to one of four directions by pressing appropriate button and then revert back to Actikey mode by pushing Actikey again.

Zoning - One finger splits the sequencer databank into two zones, two fingers immediately define loop, three fingers make four independent sequences.

Keyboard - Press that button for live touch keyboard playing, no sequencer/arpeggiator is engaged.

Combo - Provides up-to-three-voice keyboard (W, X, Y outputs) and arpeggiator on output Z, sharing the common voltage databank. The arpeggiator tracery is taken whether from the last memorized Actikey or can be programmed by holding Combo button and touching keys, all in realtime.

Cluster - Allows every key to be whether a chord or an arpeggio, thus presenting the performance surface of 16 independent cells. This is the only mode that needs to be pre-programmed before use. Once the Cluster button is pressed the user chooses between Keyboard and Actikey and then the keys become available for activation. When needed keys are defined one can advance to the next cluster cell by pressing -> button and repeat aforementioned actions. Later editing of programmed data is easily possible, with <- and -> buttons. Pressing Cluster again confirms changes and permits playing.

hint - If Actikey is chosen for particular key, Poly/Mono mode also become an option.

Capture - This mode is much like the one that legendary Buchla Thunder had. It records what is being played and plays it back. When the Capture button is pressed, the system is ready and starts recording once a key is touched. User can initiate an immediate playback in any of two directions by pressing either -> or <- button. Playback speed is adjustable during playback by touching keys, when the key #8 is the original speed. Pressing Hold button pauses the playback. To erase previous session and rearm the recorder just press Capture and Reset buttons simultaneously.

Pattern - Defines the global rhythmic pattern applicable to all sequencing/arpeggiation modes.

RESET - Press'n'holding this button longer than 2 seconds causes system reset. All user presets retain.

Load/Save presets - Located under <- and -> buttons and

marked as **L** and **S** respectively. Hold the button and touch the appropriate key to execute the needed action. There're 16 user preset slots.

hint - Voltages are not saved as a part of preset because of their analogue nature. The content of Capture buffer cannot be saved either, as for current firmware version.

****IMPORTANT**** - All sequencing/arpeggiation modes have to be driven by external timing pulse applied to the **event advance** input.

Keen Association - Moscow