

SPUTNIK MODULAR

MULTITOUCH KEYBOARD / CONTROLLER MANUAL V.1

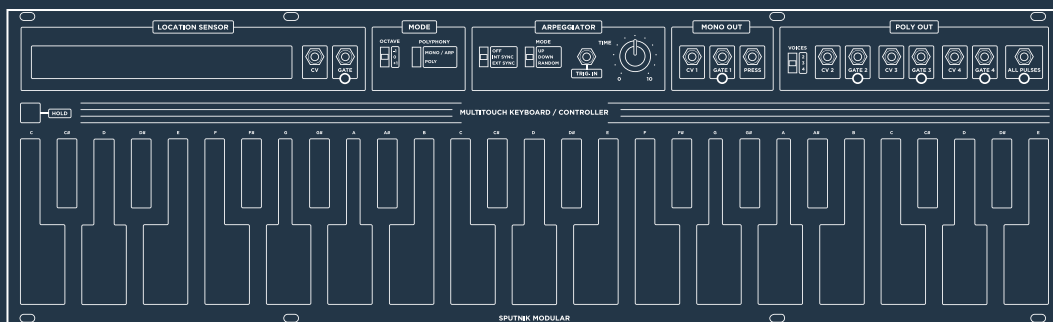


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SPECIFICATIONS

FORMAT:

EURORACK

DIMENSIONS:

84HP, 20mm deep

INTERNAL AND EXTERNAL SIGNALS (3.5mm Jacks):

CV: 0-5V OR 0-10V, 1V/OCT

MAX CURRENT:

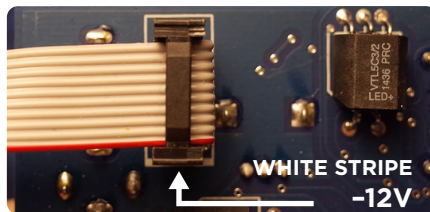
+12V: 50mA

-12V: 40mA

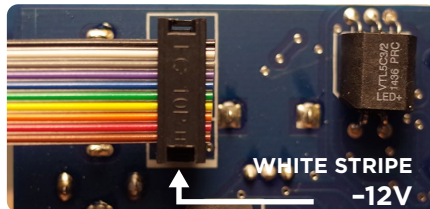
+5V: 40mA

INSTALLATION

- 1 Remove module from packaging.
- 2 Power down your modular synthesizer and disconnect the power cable from the wall outlet.
- 3 Attach the included power cable to the module's power connector and connect the other end to the power distribution bus in your EuroRack synthesizer case. If you have a bi-colored ribbon cable the red stripe should be on a same side with a bold white line on a pcb. In case if you have a rainbow-colored ribbon cable the key is brown. Connector also has a key which should match sixscreen on a pcb.
- 4 Position the module on the mounting rails in your EuroRack case and screw down mounting screws. Power up! If your case does not turn on properly then you have installed the module incorrectly. Simply power down and make sure to follow the diagram when reconnecting the module.



BI-COLORED RIBBON



RAINBOW RIBBON



DESCRIPTION

The SPUTNIK MULTI-TOUCH KEYBOARD/CONTROLLER is a touch sensitive keyboard featuring 29 chromatic keys with multiple V/oct scaled CV outputs. Features include both monophonic and polyphonic (with up to 4 notes of polyphony available) modes, a 3 octave range switch, a dedicated key pressure output, a “ribbon-style” location sensor controller that outputs both CV as well as GATE, and a full-featured arpeggiator/clock divider with internal or external clock control. PCB mounted switches on the rear of the module allow the user to toggle between first or last note priority and 5V or 10v voltage ranges for location sensor and pressure controls (ships in “First” and 5V modes by default).

NOTE: This module requires your system to have a +5V power rail in order to function.

LOCATION SENSOR

CV

CV output (selectable between 0 to +5V or 0 to +10V on rear of module) of the LOCATION SENSOR. CV goes from low voltages on the left to higher ones on the right.

GATE

Gate output of the LOCATION SENSOR with LED indicator

MODE

OCTAVE

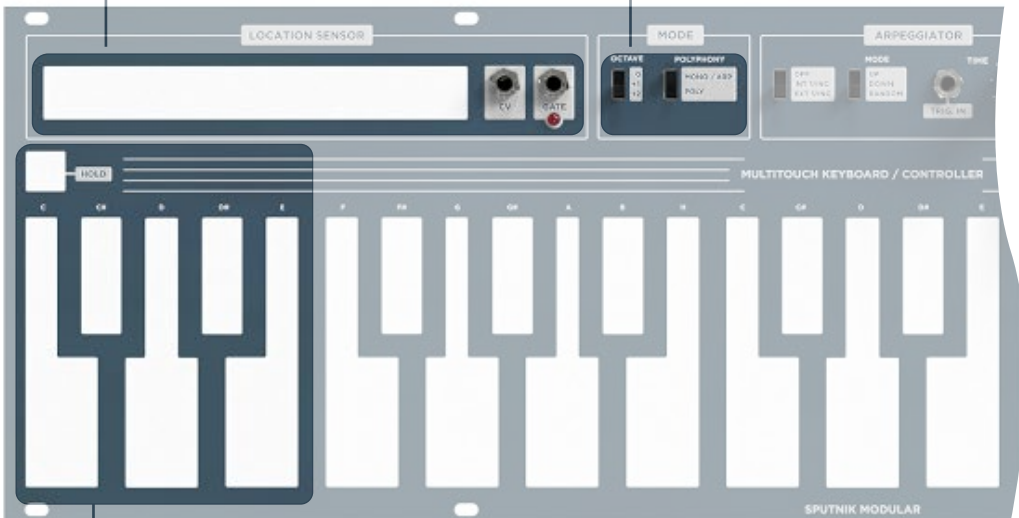
Three mode switch allowing for selection between 0, +1 and +2 octave range

POLYPHONY

If MODE is set to MONO/ARP, the keyboard will respond to a single note at a time (when ARPEGGIATOR is set to off) or act as an arpeggiator if multiple notes are held down (when ARPEGGIATOR is set to INT SYNC or EXT SYNC).

If MODE is set to POLY, the keyboard will respond to up to 4 notes at a time (selectable using the VOICES switch).

NOTE PRIORITY can be set to either FIRST (default) or LAST on the rear of the module.



KEYBOARD

HOLD

Pressing HOLD while multiple keys are engaged in MONO/ARP mode (with INT or EXT SYNC selected) will allow that arpeggio to run without needing to touch those keys. To change the arpeggio, simply touch the next set of keys simultaneously and press the HOLD button again while those keys are engaged. To exit HOLD, release keys and press HOLD.

KEYS

29 touch-sensitive, chromatic keys.

ARPEGGIATOR

Three mode switch allowing for selection between OFF, INTERNAL SYNC and EXTERNAL SYNC (see TRIG and TIME)

MODE

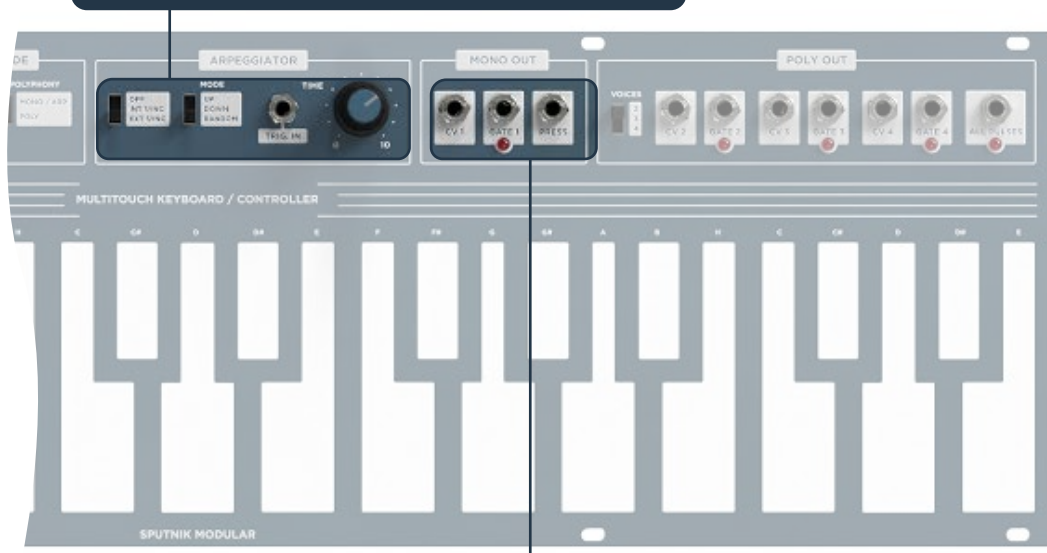
Choose between 3 sequential modes at a time: UP (plays notes in ascending order left to right), DOWN (plays notes in descending order right to left), or RAND (notes are played in random order).

TRIG

When in EXT SYNC mode tempo/clock can be controlled by trigger, gate, or clock signals via an input jack.

TIME

In INTERNAL SYNC, adjust the TIME controller knob to adjust ARPEGGIATOR tempo. For clock signals sent using your internal busboard (compatible with 4ms and Make Noise clock bus), set the TIME to "0".



MONO OUT

CV 1

Primary CV output in MONO/ARP mode. In POLY mode CV 1 is the output for the first key engaged.

GATE 1

Primary gate output in MONO mono mode. When ARP is engaged, GATE 1 will output either the internal or external clock. In POLY mode, GATE 1 outputs a gate signal when the first key is engaged.

PRESS

In MONO mode, PRESS outputs the pressure (finger surface area) CV from whatever single note is played. In ARP mode, it will output the pressure CV of a given key in the arpeggio (For example, if you have a two-note arpeggio and you press the first key hard and second key slightly, when those notes cycle through the arpeggio their individual pressure CV value will be present at the output). In POLY mode, the pressure CV value is averaged across the number of keys engaged.



POLY OUT

VOICES

Selects the number of notes able to be played simultaneously in POLY mode.

CV 2-4

In MONO/ARP mode, these jacks will output V/oct CV transposed up from CV 1:

CV 2: +2 semitones (Major 2nd/Whole Step)

CV 3: +4 semitones (Major 3rd)

CV 4: +7 semitones (Perfect 5th)

In POLY mode, CV 2-4 will output pitch CV for keys engaged in the order they are pressed. Keys engaged in excess of the polyphony limit set by the VOICES switch will not generate CV or gate signals at their outputs (i.e., CV 4 will have no output if VOICES is set to "3").

GATE 2-4

In MONO mode, GATE 2-4 will output the same GATE signal as GATE 1. In ARP mode, GATE 2-4 act as a clock divider (GATE 2: /2, GATE 3: /3, GATE 4: /4). In POLY mode, GATE 2-4 will output gates for the second, third, and fourth keys pressed (up to the polyphony limit set by the VOICES switch).

ALL PULSES

In MONO and POLY mode, ALL PULSES will produce a short pulse whenever any key is engaged. In ARP mode, ALL PULSES acts as a /16 clock divider, generating a short pulse every 8 clock cycles (whether from the internal clock or the external clock input).

WARRANTY

This product is covered by the Sputnik Modular warranty, for one year following the date of purchase. This warranty covers any defect in the manufacturing of this product. This warranty does not cover any damage or malfunction caused by incorrect use – such as, but not limited to, power cables connected backwards, excessive voltage levels, or exposure to extreme temperature or moisture levels.

The warranty covers replacement or repair, as decided by Sputnik Modular. Please contact customer service via our website (www.sputnik-modular.com) for a return authorization.