SPUTNIK MODULAR

DUAL OSCILLATOR
MANUAL V.1

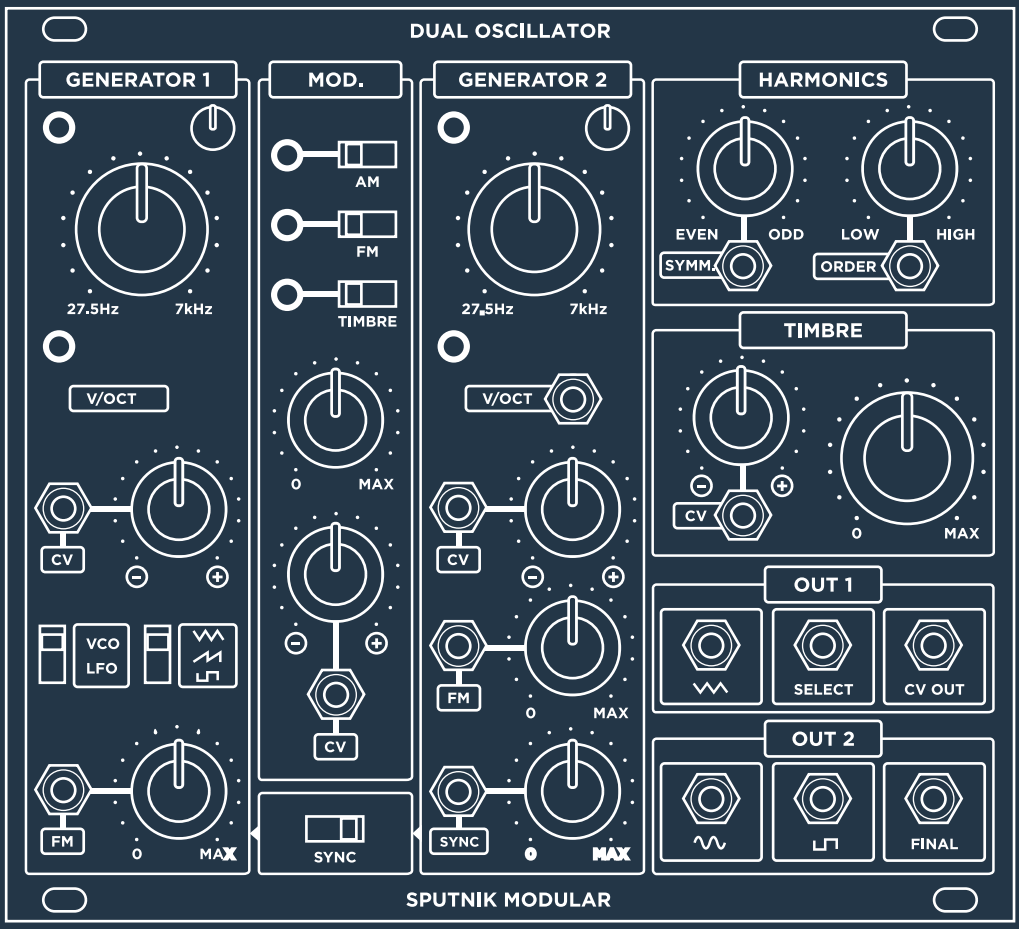


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SPECIFICATIONS

FORMAT:
EURORACK

DIMENSIONS:
10HP, 28mm deep

INTERNAL AND EXTERNAL SIGNALS (3.5mm Jacks): CV: 0 to 5V, AUDIO: +/-5V

MAX CURRENT:
+12V: 120mA
-12V: 110mA
+5V: 25mA

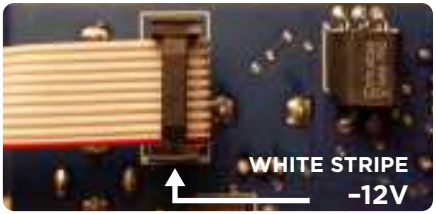
INSTALLATION

1. Remove module from packaging.

2. Power down your modular synthesizer and disconnect the power cable from the wall outlet.

3. Attach 2 included power cables to the module's power connectors and connect the other sides 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 sikscreen 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 Dual Oscillator consists of two, independent generators (VCOs) linked by a compact modulation bus that allows for immediate and extreme timbral control. Both generators track 1V/oct and also include attenuated FM inputs, bipolar CV modulation inputs, and sync controls. Additionally, Generator 2 features a “Final” output with that includes wave-folding section with harmonic control and amplitude modulation (AM).

GENERATOR 1

Coarse and Fine Tune knobs for setting the frequency.

LEDs indicate waveform polarity.

V/Oct input (4 octaves)

Exponential CV input with bi-polar attenuverter.

VCO/LFO mode switch.

Waveform switch. Selects one of three waveforms that is output at the SELECT jack: triangle, ramp, and square.

FM input with attenuator linear frequency modulation.

MODULATION

A vactrol based AM, FM, TIMBRE modulation bus. Switches route CV from GENERATOR 1 to modulate parameters of GENERATOR 2's FINAL output. FM affects all 3 outputs of GEN 2.

Amount of modulation is controlled by the modulation index attenuator.

External CV can also be applied to control the range of modulation from GENERATOR 1 that effects GENERATOR 2. The CV may be attenuverted.

GENERATOR 2

Coarse and Fine Tune knobs for setting the frequency.

LEDs indicate waveform polarity.

V/Oct input (4 octaves)

Exponential CV input with bi-polar attenuverter.

FM input with attenuator linear frequency modulation.

External SYNC input with attenuator for synchronizing GENERATOR 2 to an external oscillator.



SYNC

SYNC switch engages a soft sync with GENERATOR 1 synced to GENERATOR 2.

TIMBRE

Manual and attenuverted voltage control of TIMBRE. This section is the primary wavefolder that transforms the FINAL output's basic sine wave into more timbrally complex waveshapes in conjunction with the HARMONICS controls.

TIMBRE

The HARMONICS section controls the spectral content of the FINAL output waveform when the TIMBRE control is active or being modulated.

SYMMETRY skews the waveform to emphasize either even (like a sawtooth) or odd (like a square wave) harmonics.

ORDER places a priority on either lower harmonics or higher harmonics.

Both parameters have CV control combined with manual control via a front panel knob.



OUT 1

Outputs for GENERATOR 1 with a dedicated TRIANGLE out, SELECT out, and CV OUT (unipolar, 0 to +5V version of the SELECT output).

OUT 2

Outputs for Gen. 2 with a dedicated SINE out, a dedicated SQUARE out, and the FINAL output (output of Gen. 2 after TIMBRE, HARMONICS, and AM).

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.