Rnd

Random Voltage Generator



Description

Rnd is a random voltage generator and random gate source with an internal clock. The output is a quantized random voltage between 0V and 10V. The attenuator control provides fine-tuning of the random voltage. This allows for a musically useful range to be defined. In addition, random gates are emitted from the gate output with an associated probability control while externally clocked. Great for modulation and chaotic rhythmic events, Rnd is a universal solution for adding unpredictability to your system.

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Installation

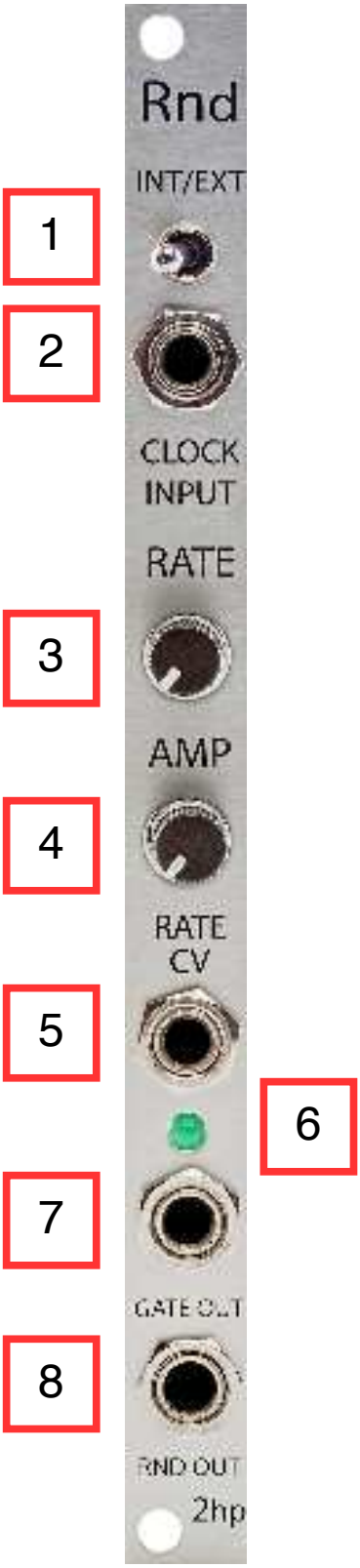
To install, locate 2 HP of space in your Eurorack case and confirm the positive 12 volts and negative 12 volts sides of the power distribution lines.
Plug the connector into the power distribution board of your case, keeping in mind that the red band corresponds to negative 12 volts.
In most systems the negative 12 volt supply line is at the bottom.
The power cable should be connected to the Rnd with the red band facing the bottom of the module.

Specifications

Format: 2 HP Eurorack module

Depth: 34mm (Skiff Friendly)

Max Current: +12V = 40mA
-12V = 16mA


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INT/EXT
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CLOCK
INPUT
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2hp

General Functions Overview

1. INT/EXT:

Toggle that switches between the internal clock and an external clock.

If the toggle is in the left position, Rnd will be clocked at the rate of its internal clock

If the toggle is in the right position, Rnd will generate a new random voltage upon receiving a gate or trigger signal at the *CLOCK INPUT*.

2. CLOCK INPUT:

If the *INT/EXT* toggle is in the left position, high voltage inserted into *CLOCK INPUT* will freeze the random voltage emitting from *RND OUT.*

External clock input when the *INT/EXT* toggle is in the right position.

Threshold: 2.5V

3. RATE:

Internal clock rate control that changes the speed at which random voltage is generated when the *INT/EXT* toggle is in the left position

Probability control of random gate signals when the INT/EXT toggle is in the right position

INT Clock Mode

If the knob is far left, the internal clock rate will be as slow as possible.

If the knob is far right, the internal clock rate will be as fast as possible.

EXT Clock mode

If the knob is far left, the probability of the random gate signals will be as low as possible

If the knob is far right, the probability of the random gate signals will be as high as possible.

4. AMP:
Amplitude control for the random voltage emitted from the *RND OUT*

If the knob is far left, random voltage will be fully attenuated (0V)

If the knob is far right, random voltage will be full scale (10V)

5. RATE CV:
Control voltage input for the rate of the internal clock

Range 0V – 8V

Control voltage is added to the knob position

6. LED:
LED that illuminates at the rate of the internal clock when the *INT/EXT* toggle is in the left position

LED that illuminates when a random gate signal is emitted from the *GATE OUT* when the *INT/EXT* toggle is in the right position

7. GATE OUT:
Output that will emit gate signals at the rate of the internal clock when the *INT/EXT* toggle is in the left position

Output that will emit random gate signals when the *INT/EXT* toggle is in the right position

8. RND OUT:
Output that will emit stepped random voltage at the rate of the internal or external clock

Range: 0V – 10V (Max range dependent upon the *AMP* control)