

# Grain



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## Description

2hp Grain is a high fidelity audio processor focused on granular synthesis. It's capable of generating granular clouds, microsound phrases, and unique textures that are derived from any input signal. The Density control sets the rate of granularization applied to the input signal and sets its position within the buffer. The Mix control sets the balance between live input and the granular audio stream for dialing in the perfect combination of sounds. In addition, there is a frequency control and associated v/oct input allowing for pitch accurate sequencing of grains. Particle patching has never been smaller with Grain.

- Granular audio processor
- Density control
- Wet/dry control
- Pitch shift
- CV over all parameters

## **Installation**

To install, locate 2HP 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 module with the red band facing the front of the module.

## **Specifications**

- Size: 2hp
- Depth: 42mm
- Current Consumption:
  - +12: 78mA
  - -12: 9mA

# Diagram



# **Functional Overview**

## **1. In**

Audio Input

## **2. Density CV**

Controls the density of Grains.

Range: -5V to +5V

## **3. Density Knob**

Controls the density of Grains.

When turned to the left, grains will be generated periodically, and increase in speed the further to the left the knob is turned.

When turned to the center, grains will stop being generated.

When turned to the right, grains will be generated stochastically, and increase in speed the further to the right the knob is turned.

Grain Size/Speed is also affected by the Freq control.

## **4. Mix CV**

Controls the mix of input signal and granular signal being sent to the output.

Range: -5V to +5V

## **5. Mix Knob**

Controls the mix of input signal and granular signal being sent to the output.

When the knob is far left, only the dry signal will be heard.

When turned to the right, only the granular signal will be heard.

## **6. V/Oct**

1V/Octave CV input.

Range: -1.5V to +5.5V

## **7. Freq**

Controls the amount of pitch shifting applied to the grains being generated.

When the knob is far left, the grains will be pitch shifted down 4 octaves.

When the knob is in the middle, the grains will not be pitch shifted.

When the knob is far right, the grains will be pitch shifted up 4 octaves.

Grain size decreases, and the speed at which grains are generated increases as the freq control increases.

## **8. Out**

Audio Output