Generator

[No Longer In Production]

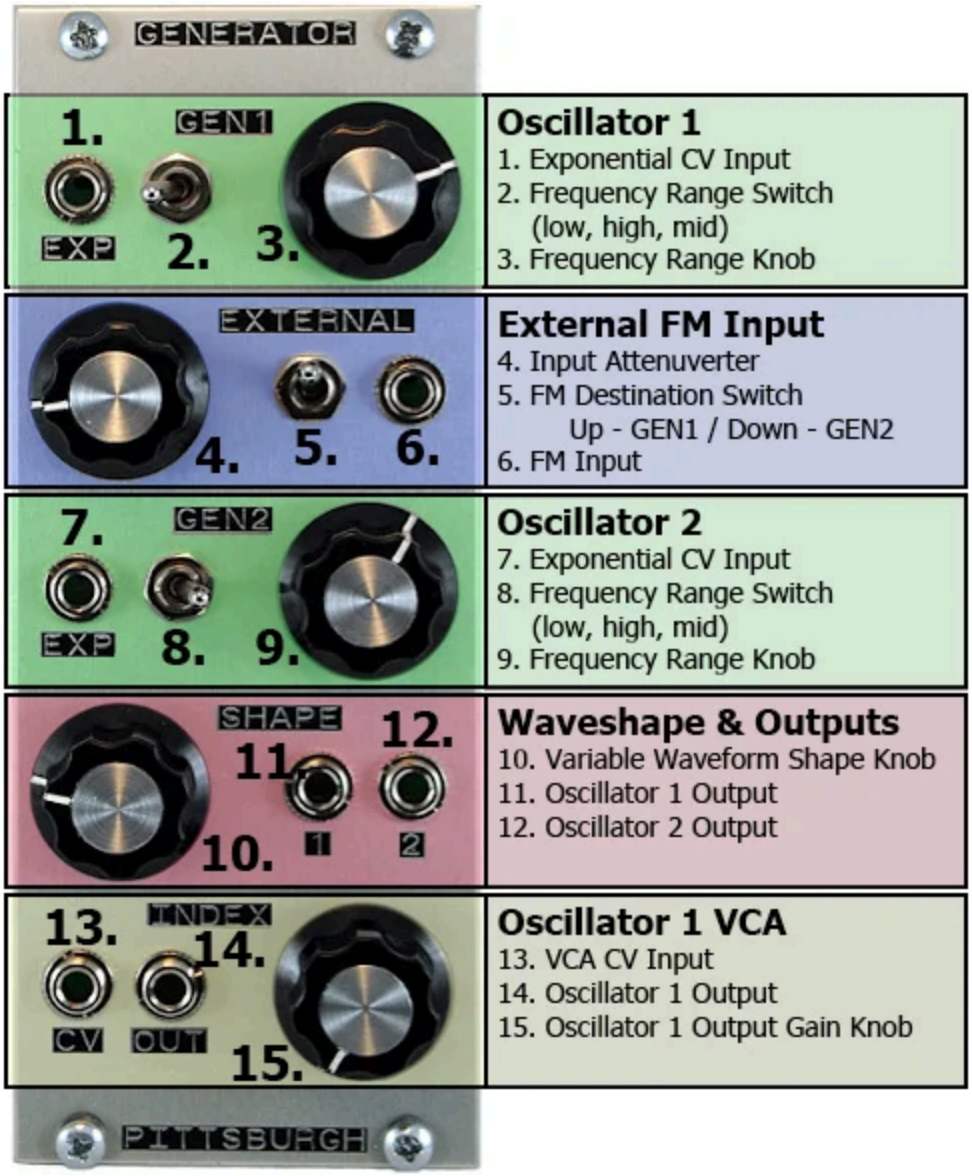
Dual Oscillator FM Monster

A dual oscillator built around two triangle core, wide range, periodic waveform generators. As a multipurpose signal generator, it can provide the basis of a wide range of complex sounds ideal for tuned percussion/noise, abrasive amplitude, frequency and timbral modulation. Tones, drones, textures, and drums to atonal, nintendo zipper/fart noises. This module was made for FM madness.

Size: 10hp

Depth: 35mm

Power Usage: 30mA



Oscillator 1
1. Exponential CV Input
2. Frequency Range Switch
   (low, high, mid)
3. Frequency Range Knob

External FM Input
4. Input Attenuverter
5. FM Destination Switch
   Up - GEN1 / Down - GEN2
6. FM Input

Oscillator 2
7. Exponential CV Input
8. Frequency Range Switch
   (low, high, mid)
9. Frequency Range Knob

Waveshape & Outputs
10. Variable Waveform Shape Knob
11. Oscillator 1 Output
12. Oscillator 2 Output

Oscillator 1 VCA
13. VCA CV Input
14. Oscillator 1 Output
15. Oscillator 1 Output Gain Knob

Generator Controls Description

Generator Controls Are Divided Into 5 Rows

GEN1 - Control Set For Generator 1 (Oscillator 1)

EXP - An exponential CV input to control the rate of Generator 1. Although it is an exponential response, the Generator does not track 1 volt per octave and is not temperature compensated.

3 WAY RANGE SWITCH - a coarse adjustment for the Generator 1 frequency. Left = Low, Center = High, Right = Mid

RANGE POT - The fine adjustment for Generator 1 frequency.

EXTERNAL - FM modulation Input

INPUT ATTENUVERTER for the CV input. Pot zeros out at 12 o'clock.

DESTINATION SWITCH - Determines which Generator (1 or 2) is modulated. Up modulates Generator 1, down modulates Generator 2.

EXTERNAL INPUT - Accepts CV and audio rate signals as a modulation source.

GEN2 - Control Set For Generator 2 (Oscillator 2)

*Generator 2 is exactly the same as Generator 1 EXCEPT... Generator 2 is FM'd internally by the Generator 1 Index Out, which means the amount of internal FM of Generator 2 is controlled by the Index Pot and/or Index CV input.

EXP - An exponential CV input to control the rate of Generator 2. Although it is an exponential response, the Generator does not track 1 volt per octave and is not temperature compensated.

3 WAY RANGE SWITCH - a coarse adjustment for the Generator 2 frequency. Left = Low, Center = High, Right = Mid

RANGE POT - The fine adjustment for Generator 2 frequency.

SHAPE - Generator 1 & 2 Waveform Controls

SHAPE POT - Controls the waveforms of both Generator 1 and Generator 2. Turned full left, Generator 1 is a square wave and Generator 2 is a triangle wave. Turned full right, Generator 1 is a triangle wave and Generator 2 is a square wave

1 - Output for Generator 1 (Pre Index VCA)

2 - Output for Generator 2

INDEX (Generator 1 VCA Output Control)

CV INPUT for the index VCA

OUT - Post Index VCA Generator 1 output.

INDEX POT - Gain control for Generator 1 Index VCA. The Index Pot is not an attenuator for the Index CV input. Full left is 100% gain. Full right is 0% gain. Turn the Index pot full right to get the full effect of the CV input on the signal. Turn the Index Pot full left to get 100% regardless of CV input.

Patch Example

A good start for percussion...

- Patch the output of Generator 2 (2) into the External CV Input and set the External Switch to the up position to modulate Generator 1.
- Patch an envelope generator into the Index CV.
- Listen to the Index Out.
- If you set the Generator 1 Range Switch to the low position and the Generator 2 Range Switch to the mid position and adjust the fine frequencies, you get a nice percussion sound.

The **Generator circuit** was designed by Thomas O'Connor.

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