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CINNAMON

UNIQUE SOUNDING STATE VARIABLE FILTER

BASTL

CINNAMON 

Bastl Cinnamon is a very unique-sounding state-variable filter. The presence of the Drive and Character switches makes Cinnamon a multi-flavoured spice for your rack!

Features

- voltage controlled cutoff frequency
- CV input with attenuator
- volt-per-octave CV input
- audio input with gain control
- Drive switch to overdrive the input of the filter
- low-pass output (12db/oct - 2-pole)
- band-pass output (6db/oct - 1-pole)
- high-pass output (12db/oct - 2-pole)
- resonance control
- Character switches to change the resonance response (the Character switches may disrupt V/Oct tracking)
- with maxed resonance, works as an oscillator
- (0°/ 90°/ 180° phased sinewave at LP, BP and HP outs)
- Character switches change the waveform when self-oscillating and may also disrupt the V/Oct tracking

Technical details

- 5HP width
- PTC fuse and diode protected 16-pin power connector
- 35 mm deep
- current consumption: +12V: <30mA, -12V: <30 mA

!!! POWER

Before connecting the ribbon cable to this module, disconnect your system from power!

Double check the polarity of the ribbon cable and make sure it is not shifted in any direction. The red cable should match the -12V rail both on the module and on the bus board!

Please make sure of the following:

- you have a standard pinout eurorack bus board
- you have +12V and -12V rails on that bus board
- the power rails are not overloaded by current

Although we put protection circuits in the device, we do not take any responsibility for damages caused by wrong power supply connection.

After you connected everything, double-checked it and closed your system, so no power lines can be touched by hand, turn on your system and test the module.


CINNAMON
STATE VARIABLE FILTER
POST SOUND
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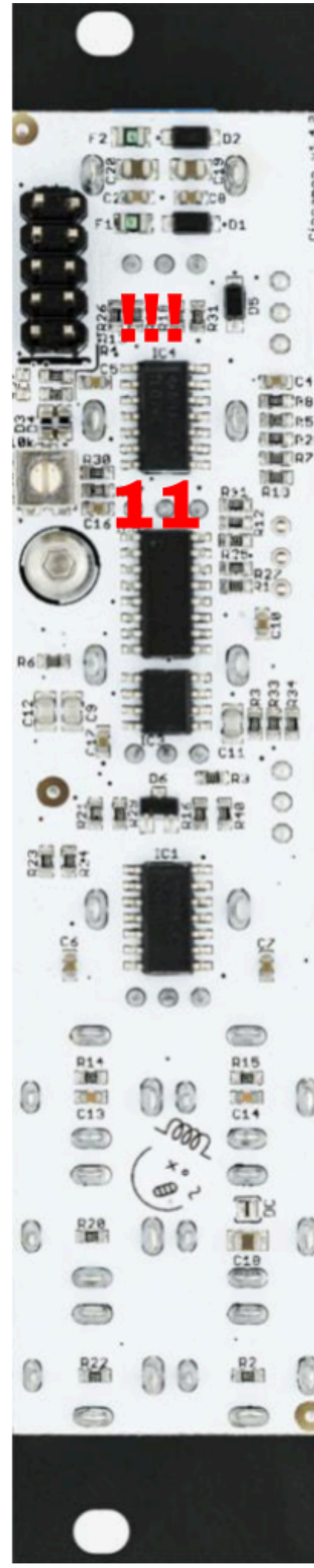
CUTOFF
9
RESONANCE
8
CHARACTER
9
7
DRIVE
FM
10
INPUT LEVEL
6
7
V/OCT
FM
1
2
INPUT
HIGHPASS
3
4
BANDPASS
LOWPASS
BASTL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INSTRUCTIONS

1 INPUT

The signal that comes into the input is processed by the filter and then output with various frequency spectrum modifications.

2 HIGH-PASS

The high-pass output cuts the frequencies below the cutoff frequency. The cutoff slope is 12 decibels per octave steep (2-pole filter).

3 BAND-PASS

The band-pass output cuts both the high and the low frequencies of the input signal around the cutoff frequency. The cutoff slope is 6 decibels per octave steep (1-pole filter).

4 LOW-PASS

The low-pass output cuts the high frequencies of the input signal above the cutoff frequency. The cutoff slope is 12 decibels per octave steep (2-pole filter).

5 CUTOFF

The cutoff frequency is the frequency around which the spectrum is filtered away. The cutoff frequency is set by the sum of the cutoff knob value and the two control voltages, plugged into the CV inputs.

6 LEFT CV

The Left CV input is affecting the cutoff frequency and is tuned to respond by the one-volt-per-octave standard (tracking only works reliably when the Character switches are deactivated).

7 RIGHT CV

The Right CV input is also affecting the cutoff frequency and the intensity of the modulation can be adjusted by the Attenuator knob. When the Attenuator knob is rotated fully counter-clockwise, the right CV input does not affect the cutoff frequency at all.

8 RESONANCE

The Resonance knob emphasises the cutoff frequency in the spectrum. When the resonance is turned fully clockwise, the filter starts to self-oscillate at the cutoff frequency.

9 CHARACTER

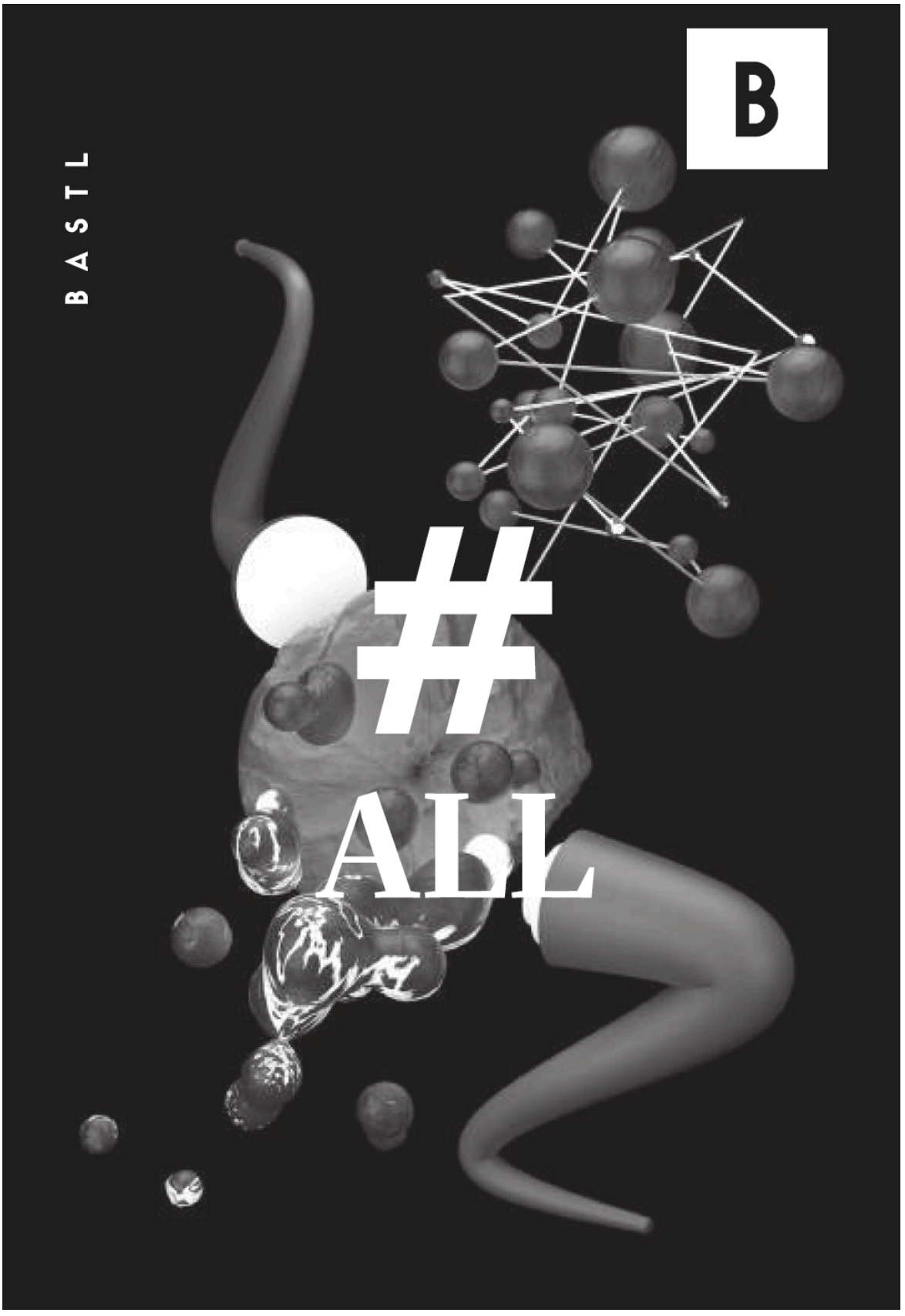
The Character switches affect the response of the filter resonance. When both switches are in the lower position, the resonance oscillation has a sinewave character.
When the upper switch is on, the wave gets an edgy sharp character.
When the lower switch is on, it gets a saw-tooth character.
The way how these two switches change the response of the filter is affected by the Input level of the filter.
Please note that turning these switches ON may disrupt the volt-per-octave tracking.

10 DRIVE

The Input level knob and the Drive switch are very important controls, because the filter response is highly affected by the input level of the signal. When the Drive switch is in the lower position (OFF), the Input level knob sets the signal gain from 0 to 2. When the Drive switch is in the upper position, the signal gain can be set from 0 to 10, which will very likely overdrive the input with any kind of signal. Combining the Input volume with the Character switches affects the output drastically.

11 TRIMMER

The Volt-per-octave trimmer can be used to adjust the tracking of the filter.



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