
State Manual

Synthetic FX



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State Users Manual



Figure 1: State

A State filter is an implementation of a State Variable Filter, which is a multi-mode filter that provides filtered resonance added to an input signal and outputs at a specific cutoff frequency: Band Pass, High

Pass, Low Pass, and Notch.

Input

State has a single input that drives filter.

Output

State has a four outputs, filtered by cutoff frequency, that are the result of the processed input.

High Pass

The High Pass output provides frequency output above the cutoff frequency.

Low Pass

The Low Pass output provides frequency output below the cutoff frequency.

Band Pass

The Band Pass output provides filtered output near the cutoff frequency.

Notch

The Notch output provides filtered output with the frequencies around and including the cutoff frequency lowered.

Parameters

State provides parameters to adjust the overall sound of the module. Each parameter is accompanied by a CV input that accepts input from -5 volts to 10 volts that affect the value of the parameter. Each volt is equal to 10% of the total value of the parameter, and is additive. This means that if a parameter has a range of 0 to 1, and is set to 0.5 , the addition of a CV input set to 1 volt will set the parameter to 0.6 .

Frequency

The Frequency parameter controls the target frequency of the frequency filter. This is defined in hertz and can be set between 0 and 20000 hertz.

In addition, State has a V/Oct frequency input that can track the intended frequency of the filter. When a frequency is input, the Frequency parameter becomes additive.

Resonance

The Resonance parameter adjusts the amount of signal fed back into itself. This provides a louder but richer overall signal. This can be from 0 to 1.0, or 0% and 100%.

Polyphony

State is a polyphonic module, meaning that it can process input and output for more than one set of inputs at a time. State can process up to 16 channels per input. Each channel is processed separately, with its own copy of the filter, but all copies use the same parameter settings.