



## Patch 4 The Filter Patch

Controlling timbre with a Voltage Controlled **Filter (VCF)**. The filter adjusts the frequency content of the audio signal, allowing for selective filtering and coloring of the sound.

The **Frequency** knob determines the 'cutoff' point of the low-pass filter allowing harmonic content **below** that frequency to pass through to the amplifier. Lowering the cutoff frequency (turning Frequency knob counterclockwise) subtracts audible frequencies and creates a darker or 'muffled' sound.

The **Resonance** knob increases/reduces emphasis to the cutoff frequency.

**Experiment** with the different filter knob positions and relationships!

Amplifier (**VCA**): 'Level A' controls the amplitude (volume) of the sound signal for the 'A Input'.



The **sawtooth** wave offers harmonic complexity for the filter to work with.

Adjusts level of incoming VCO signal.

Effects to Mixer or to DAW

