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DUAL VOLTAGE CONTROLLED HIGHPASS/LOWPASS FILTER

This module combines two **VOLTAGE CONTROLLED FILTER** circuits in one triple-width unit.

The two identical filters are switchable high pass/low pass filters (with independent controls for cutoff frequency and regeneration. Filter slope in low pass mode is 24 dB/oct, in high pass mode 18 dB/oct. An additional jack combines both filters' audio outputs.

The four-mode combinator allows using the filters as:

- two separate filters ("stereo mode")
- two filters in series ("maximum slope")
- notch/band reject mode
- band pass mode

The balance between filter 1 and 2 and the bandwidth are voltage controllable. Balance works in every combinator mode – even in serial mode.

In serial, bandpass and notch modes "Cutoff 2" and "Regeneration 2" are disabled. "Cutoff 1" works as something like "Center Frequency".

Turning the **bandwith control** clockwise rises the cutoff frequency of the right filter and lowers the one of the left – the filter-"window" opens. Turning left the effect is the opposite. In center-position the filter frequencies are "unison".

All inputs of filter 2 are normalized to the inputs of filter 1 (which can be interrupted via jumpers on the rear).

In band pass and notch modes the high pass/low pass switches are disabled.

Band pass mode: Audio out 1 is connected internally to audio in 2; filter 1 is high pass, filter 2 is low pass. Both audio outputs 1 and 2 have the band pass signal.

Notch mode: Audio in 1 and 2 are connected internally, audio out 1 and 2 are summed; filter 1 ist high pass, filter 2 ist low pass. Both audio outputs 1 and 2 have the notch signal.