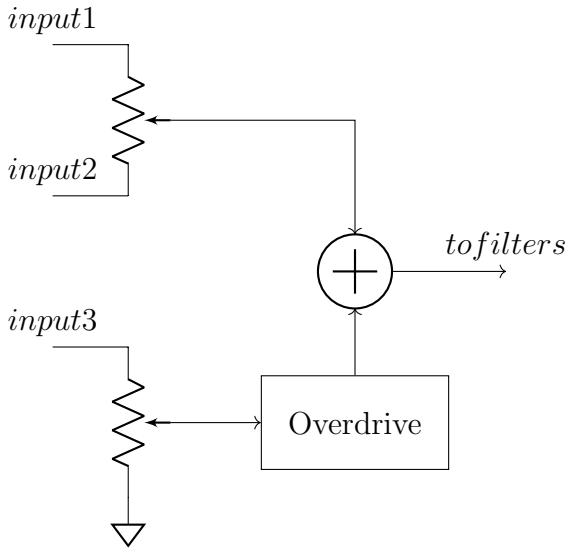
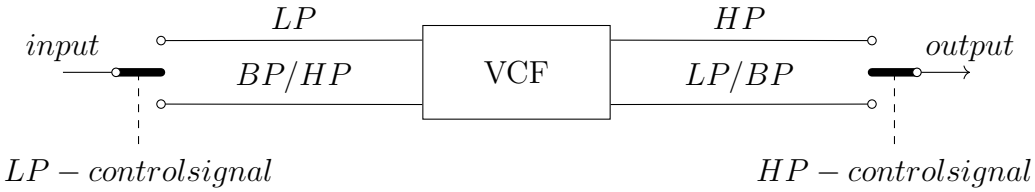
Input mixer

The input stage contains of a small mixer with two potentiometers; one mix between input 1 and input 2 and the other is the volume for input 3 that also goes through an overdrive.



Filter(s)

The filter is based on AS/CEM3350, which is a dual 2 pole filter, together with s-load of MUXes that allows for reconfiguration of the setup. All the filters has MUXes that allows them to be switched between LP/BP/HP.

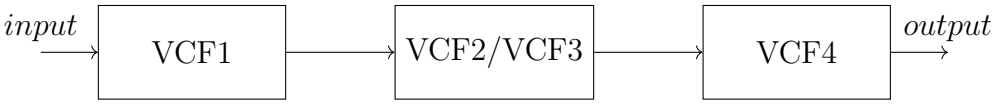


Lowpass

Bandpass

Highpass

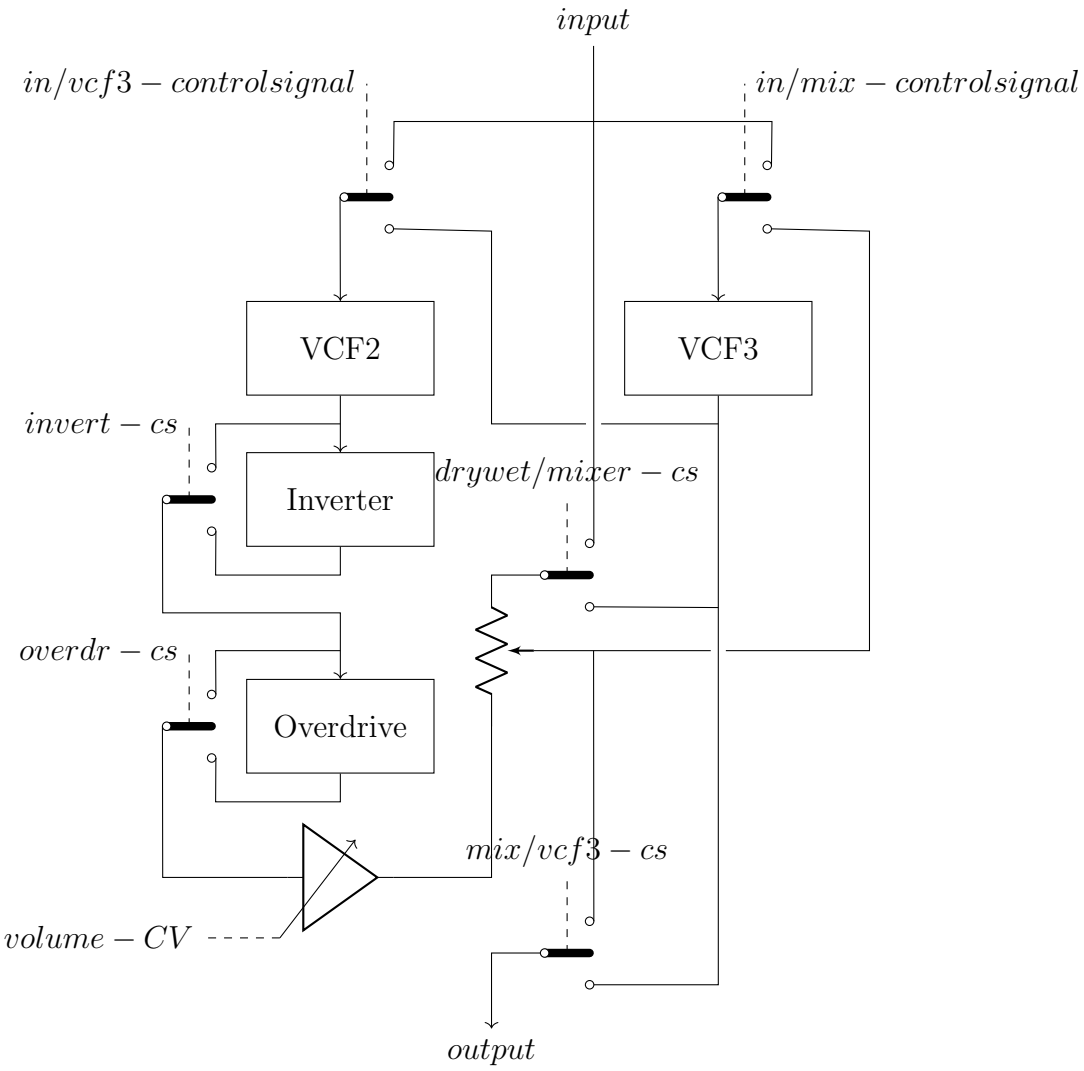
Right now the idea is to have a filter chain with a pre-processing filter (VCF1), a dual filter that can be configured in different ways (VCF2/VCF3) and a post-processing filter (VCF4). This is, of course, not definitely settled. Yet.



The VCF2 and VCF3 creates a filter block where the filters can run in parallel, serial or feedback mode.

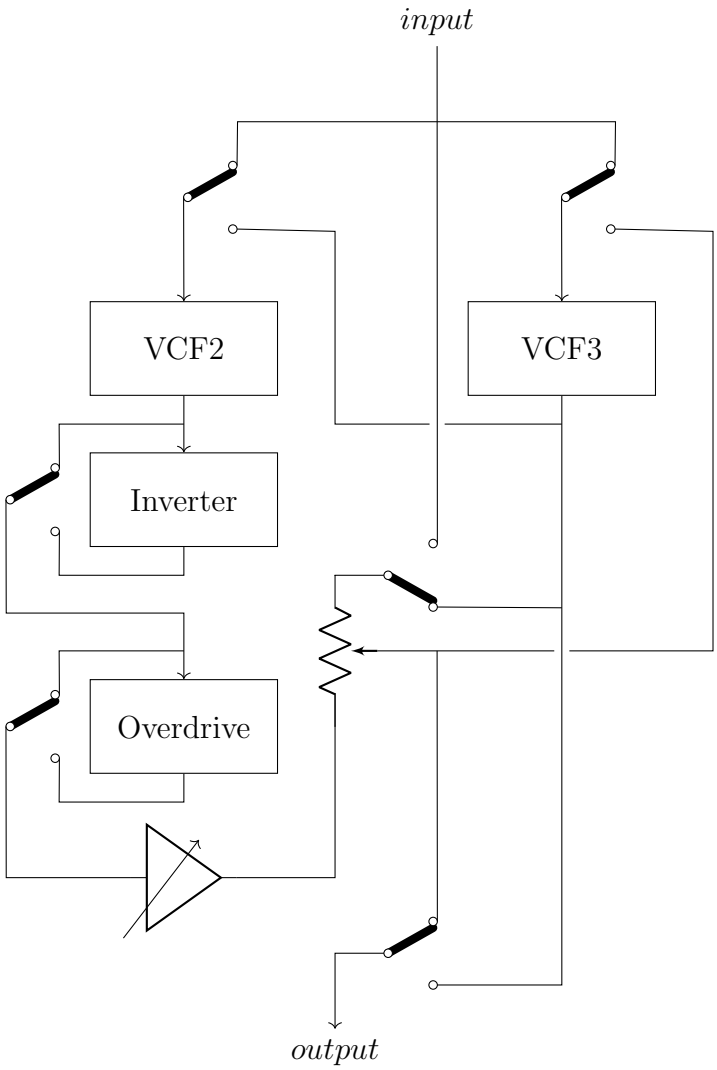
The control signals for inverter and overdrive are individually controlled, the four others are used together to change the pathways and create different filter configurations. The potentiometer works as a simple mixer.

Volume is a CV controlled internal VCA for VCF2.



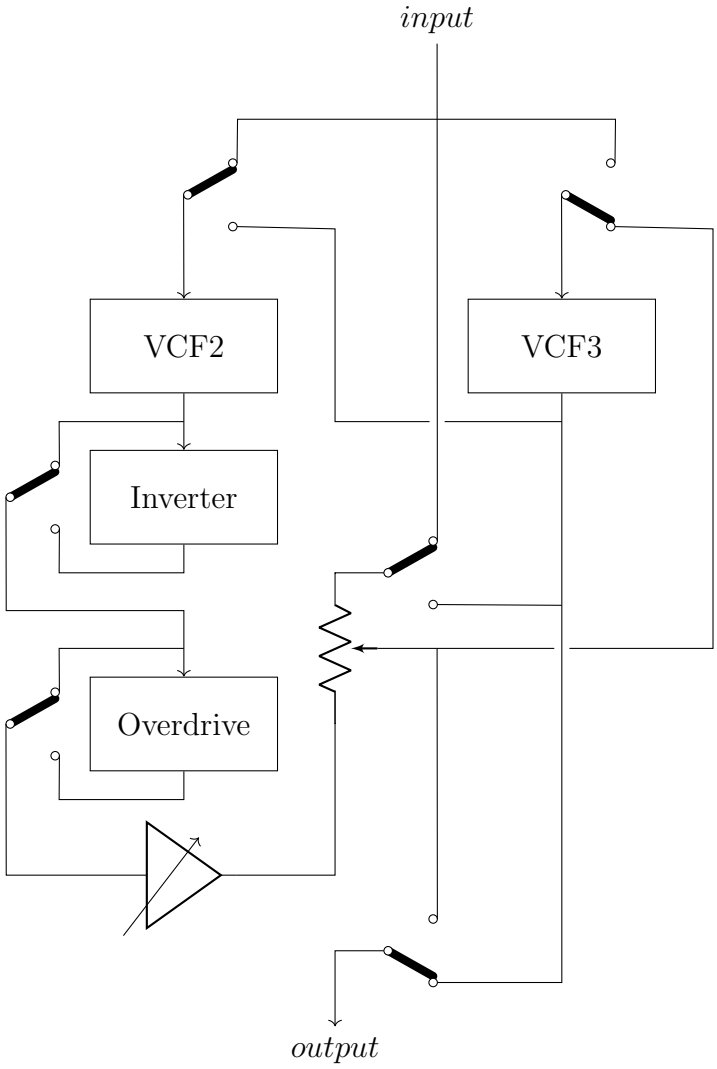
Parallel mode

In this mode both VFC2 and VCF3 are fed the signal from the input and the mixer potentiometer mix between the VCF outputs.



Serial mode

In this mode the input goes to VCF2 and the potentiometer works as a wet/dry mix between input and VCF2 and that is fed to the input of VCF3. Output is taken directly from VCF3.



Feedback mode

In this mode the input goes to the potentiometer that mix between input and the output from VCF2, this is then fed into VCF3 which output then goes out from the filterblock and is also fed into VCF2. VCF2 therefore works like a filtered feedback for VCF3.