



Comb Room
lorre-mill.com/comb_room

inputs - 1/4" mono input with low/high gain switch and overdrive - 1/8" stereo input sums left and right channels to mono.

power - 12v DC center positive 2.1mm x 5.5mm barrel 500ma minimum.

outputs - 1/4" mono output with selectable level (use a paperclip or pin to push the switch above the dry/wet control) - 1/8" mono output on left and right channels.

comb resonance - sets the feedback on the comb filter itself.

comb rate - controls the clock speed of the comb filter, sweeping the frequency.

envelope - controls the decay of the envelope follower.

mod - changes the amount of envelope signal which affects either the comb rate or the room rate, selected with the mod switch.

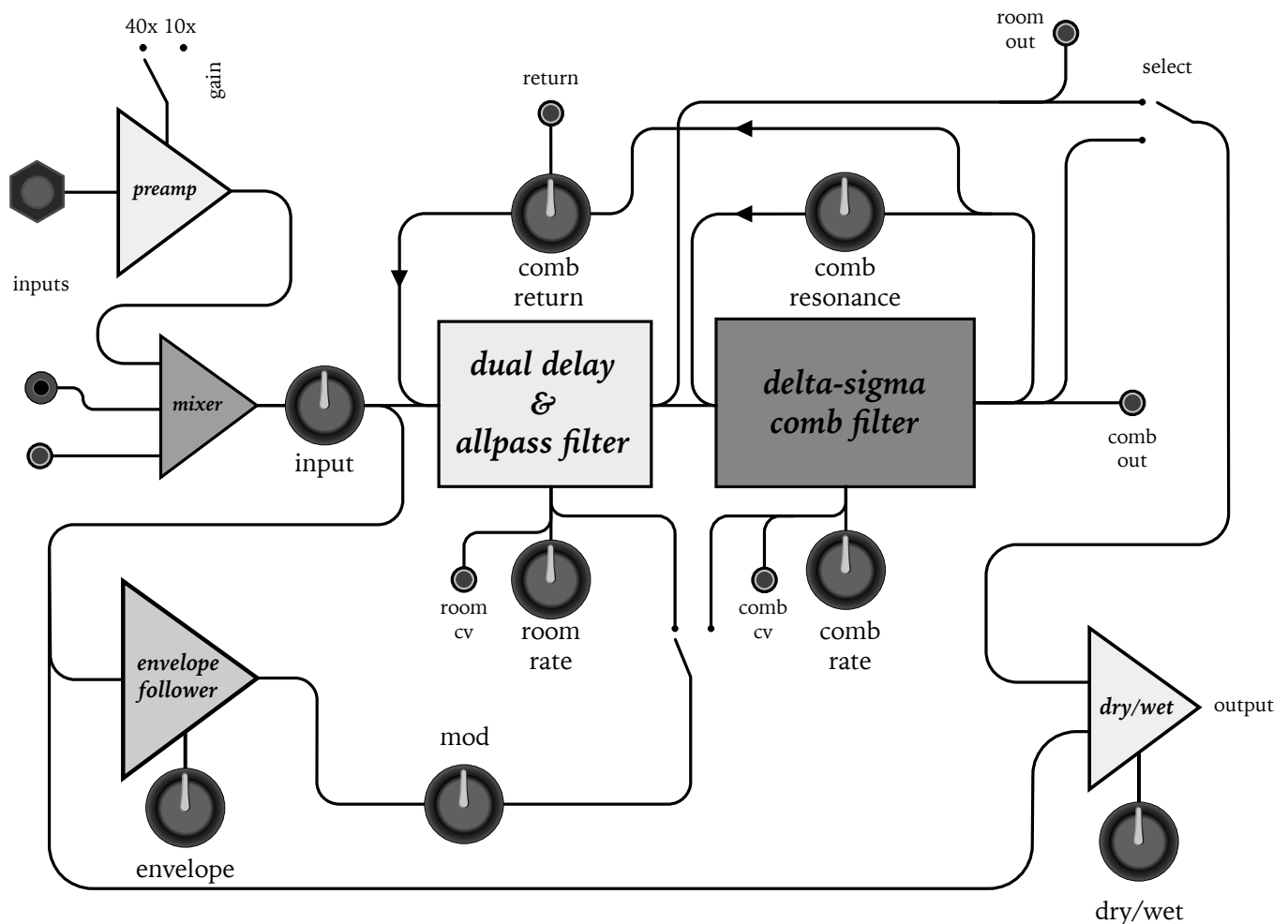
input - controls the volume of the 1/4", 1/8" and banana inputs. The gain switch selects gain for the 1/4" input, 10x or 40x.

comb return - controls the feedback from the comb filter to the room circuit. Return banana jack will override the normaled comb output.

dry/wet - is the blend of effected and dry signal. The select switch connects either comb filter output or room output as the wet signal.

room rate - controls the clocks of the room circuit, changing two echo lengths simultaneously.





The comb room effect combines a dual delay (room circuit) and a comb filter to make echo/reverb-type sounds and resonant feedback. The comb filter is in the feedback path of the delays. An envelope follower gives movement to either the comb filter or the room circuit. The comb resonance control in conjunction with the comb return control can create self oscillation. The preamp for the 1/4" input has selectable gain of 10x or 40x and a soft clipping characteristic. The comb and room circuits are both built around 1 bit delta-sigma converters. In the case of the delays, the analog to digital conversion is done in the PT2399 echo IC. The comb filter uses a simple and gritty A/D converter built of logic chips and op-amps. Which gives the filter a characteristic sound. Clock noise can be heard at lower frequency settings. Patching the room output to the return will bypass feedback through the filter, allowing all frequencies to echo.

PLEASE NOTE: Patching either the room output or comb output back into the input will bypass the feedback limiting circuits and will result in higher volume feedback, this will not damage the device but be aware the output will be louder and may clip.

Thank You! Enjoy!

