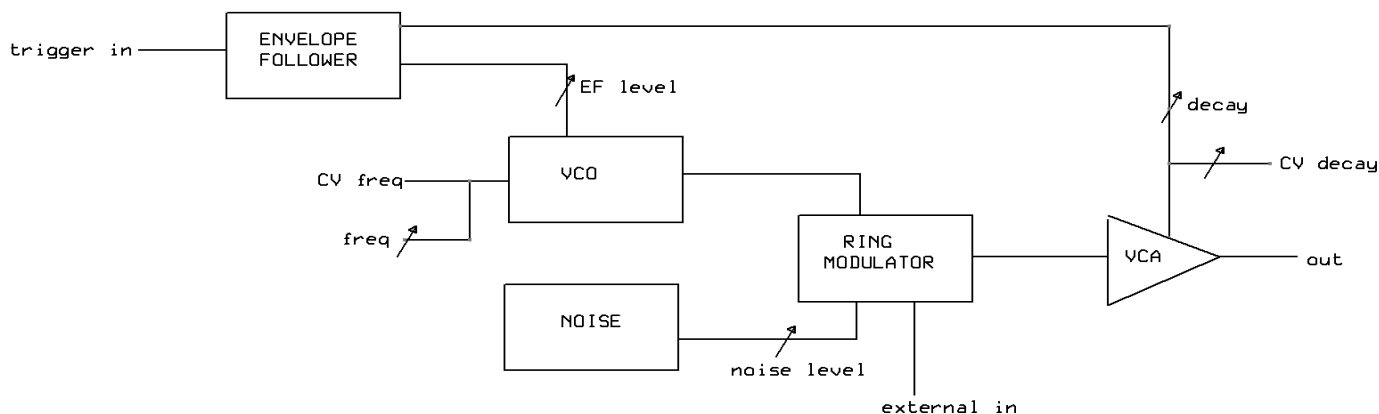


BaDumTisss

nonlinearcircuits

BaDumTisss is a snare/hi-hat module. It has a few nice features to enable the creation of a wide variety of sounds. I would say 'it is **not** a one hit wonder' but that would be a piss weak pun.

Best explained with a block diagram:



The core sound of the circuit comes from the ring mod. Usually it will process the noise source and the VCO, but feel free to plug in the output from another VCO and get some nice sounds. You can use CV to modulate the VCO frequency (NOT 1/oct) and control the decay time.

100k pot	4	Tayda: A-1848
1MA pot	1	
kobiconn style jack	5	Tayda: A-865
100k trimpot	1	Tayda: A-2506
TL072 or any dual op amp	3	SOIC (8)
LM13700	1	SOIC (16)
LED	1	
1N4148 diode	2	thru-hole
BC847	1	NPN sot-23
BC857	1	PNP sot-23
10 pin eurorack power connector	1	Tayda: A-198
10R	2	thru-hole
220R	1	0805
1k (1)	4	0805
2k2	2	0805
5k6	1	0805
6k8	1	0805
10k	5	0805
12k	1	0805
22k	1	0805
27k	1	0805
30k	2	0805
47k	1	0805
100k (c)	9	0805
330k	1	0805
1M	1	0805
10nF (103)	2	0805
100nF(104)	3	0805
1uF (105)	1	0805
4u7	1	electrolytic, thru-hole, 2mm
10uF	3	electrolytic, thru-hole, 2mm

Building:

Install the 0805 components 1st. Easiest way is to put a blob of solder on one pad of each pair. Pick up the component with tweezers, put it in position across the pads and then reheat the solder so the component drops onto the pad. Let it cool down then put some solder on the other pad.

Once the 0805 parts are installed and then start on the thru-hole components. Make sure the chip, LED and diodes are installed in the correct direction.

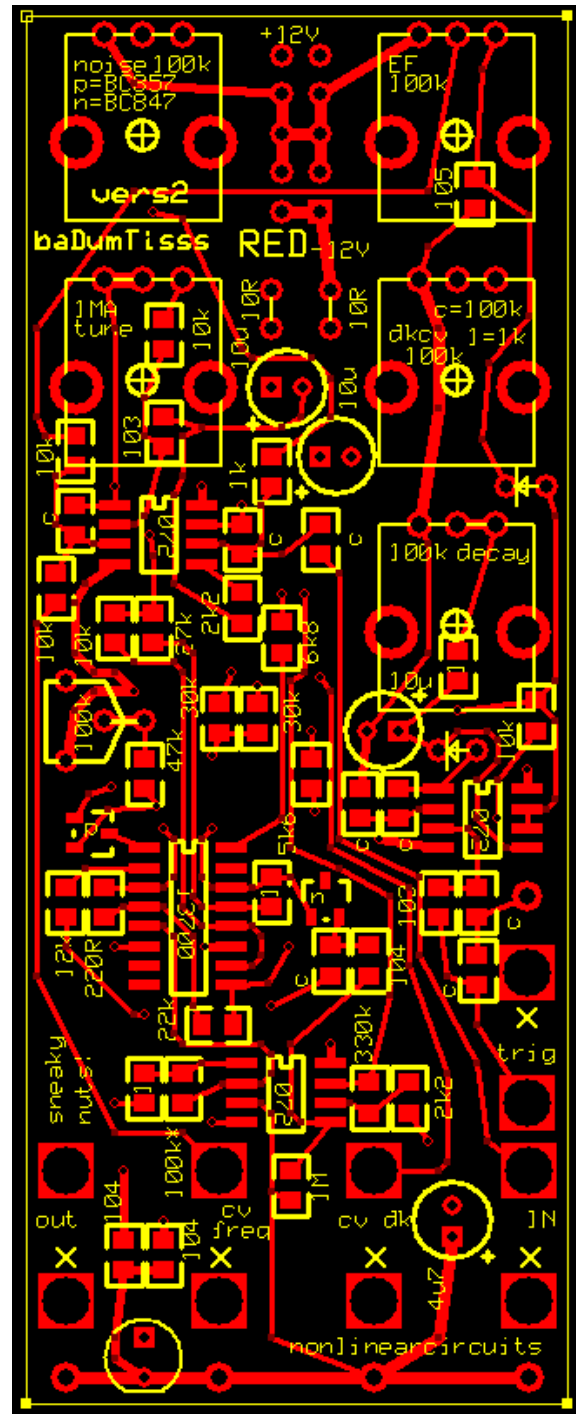
The resistor marked 100* can be changed to suit the voltage you are getting from your noise circuit. It is a transistor based circuit and there can be some variety in the signal amplitude you get from it. Most likely you will get a good solid noise signal and there is nothing to change, if it is too quiet, install maybe 150k or 220k and see how you go.

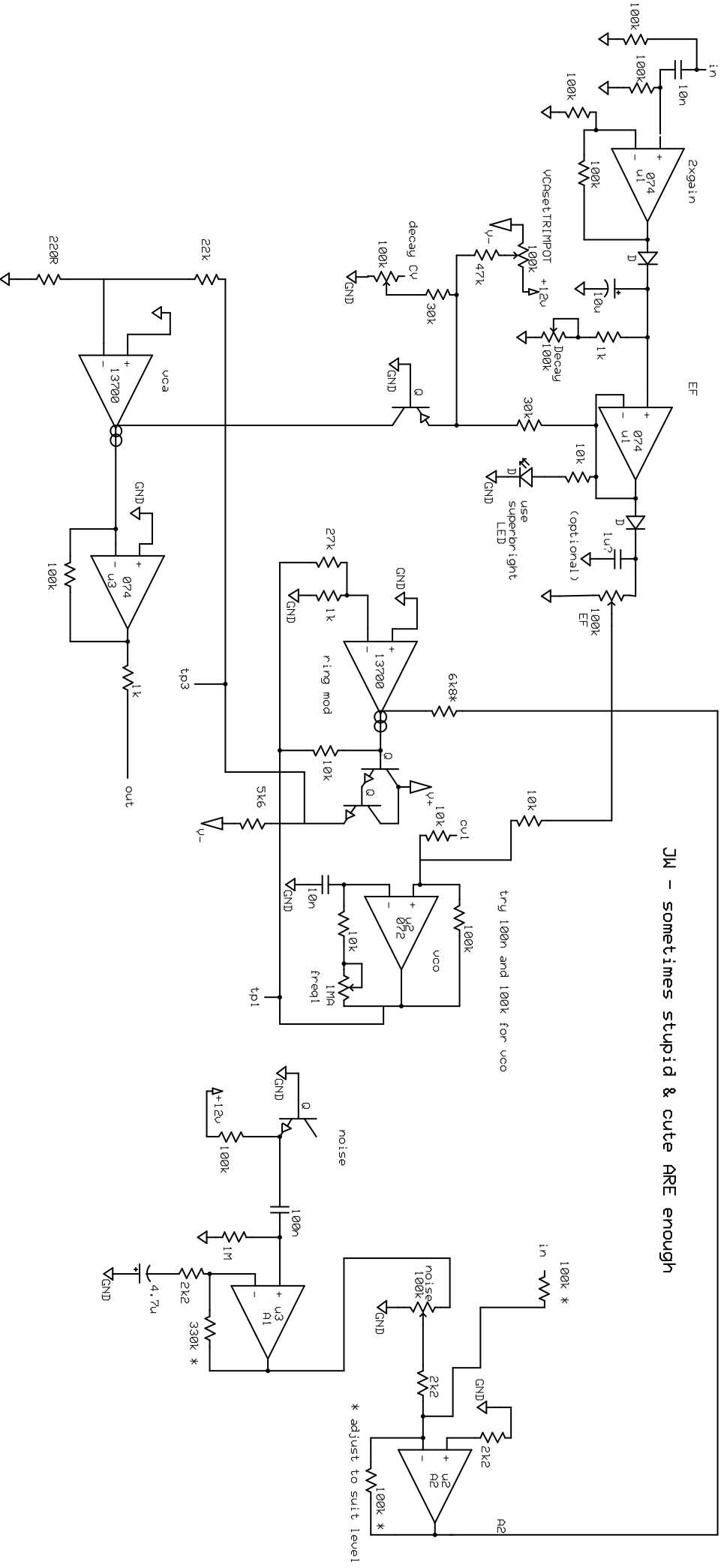
Generally the output of this module is pretty hot, so you should find 100k is plenty.

If using the NLC panel; for some reason I left off the hole for the LED. The components and pads for driving the LED are on the PCB, so feel free to drill a hole, or leave it off or scrape away some of the soldermask on the **back** of the PCB panel (a bit below and between the out and CV freq jacks). Use a superbright LED, mount it so it is against the area you scraped and you will find it makes the panel glow quite nicely.

SETUP

With nothing connected to the trigger input, tune the trimpot to the point where you can no longer hear anything from the output. Done!





JM - sometimes stupid & cute ARE enough

try 100n and 100k for uco

* adjust to suit level

Power connections and decoupling caps not shown

n1c	
ba dum tsss	
Rev 1.2	
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