

## nonlinearcircuits

### VALMORIFICATION build & BOM

valmorification - to disguise someone by gluing pubic hair on their face.

This module is a slope/envelope/function generator. The core is based on that seen in the Serge Slope Generator, Korg PS3100 EG, Maths, Rampage and a dozen other Eurorack modules. The rest of it has been trimmed down or gutted to the minimum number of parts to make it work.

If nothing is patched into GATE, the module is free running, ranging from a few minutes per cycle to audio rates. GATE can also be used as a SLEW input if you want to make a stepped sequence a bit rubbery.

Patching into the  $\uparrow$ CV or  $\downarrow$ CV jacks causes the associated pots to become attenuators for the signals you have patched in.



**BOM** – The Tayda & Mouser part numbers are given as examples

VALUE	QUANTITY	DETAILS
22pF	1	0805
22nF	1	0805
10uF	2	0805 25V or higher voltage rating
1k	3	0805
1k8	1	0805
3k3 / RL	3	0805
10k	1	0805
100k	13	0805
220k	2	0805
10M	1	0805
TL074 / TL084 / LF347	1	soic Tayda: A-1140
BC847	2	NPN sot23 Tayda: A-1339
BC857	2	PNP sot23 Tayda: A-1345
LEDs	1	prob 3mm to fit.
Eurorack 10 pin power connector	1	Tayda: A-198 cut to size
Schottky diodes	2	I use MBR0540 in a sod-123 package. Any with 30V+ and 0.25A+ ratings will do. dot on PCB indicates CATHODE (stripe on component).
3.5MM SOCKET Kobiconn style	6	Tayda: A-865 or Thonkiconn Jacks (PJ301M-12) from Thonk, Synthcube or Modular Addict
100k pots	4	best to use T18 (or similar) splined/knurled shaft pots as the spacing is tight. Tayda: A-4729
40 Pin 2.54mm Single Row Pin Header Strip	1	Tayda: A-197 snap into 3 and 4 pin sections, get spares

I solder the top PCB onto the header pins of the bottom PCB, leave it as high as possible in case some extra soldering is required. If you prefer, used connectors.

### Additional notes:

**1.** The chips, resistors, caps are cheapest from Tayda. Schottky diodes, CMOS & 1uF, 10uF 25V 0805 caps from Mouser/E14/Farnell/etc.

**2.** Join the Nonlinearcircuits Builders Guild on FB:  
<https://www.facebook.com/groups/174583056349286/> and ask questions there if you have any. If you prefer not to FB then email is fine.

**3.** For some reason pots are somewhat scarce these days. It makes no sense to me, I order 1500 at a time from my regular supplier and get them in 3 weeks. If you want to order a minimum 500 pots @ \$0.30 each contact Rita at [sales1hongyuan@163.com](mailto:sales1hongyuan@163.com). Shipping is a bit pricey, but should still work out cheaper than buying from Tayda or elsewhere.

For knurled shaft you want

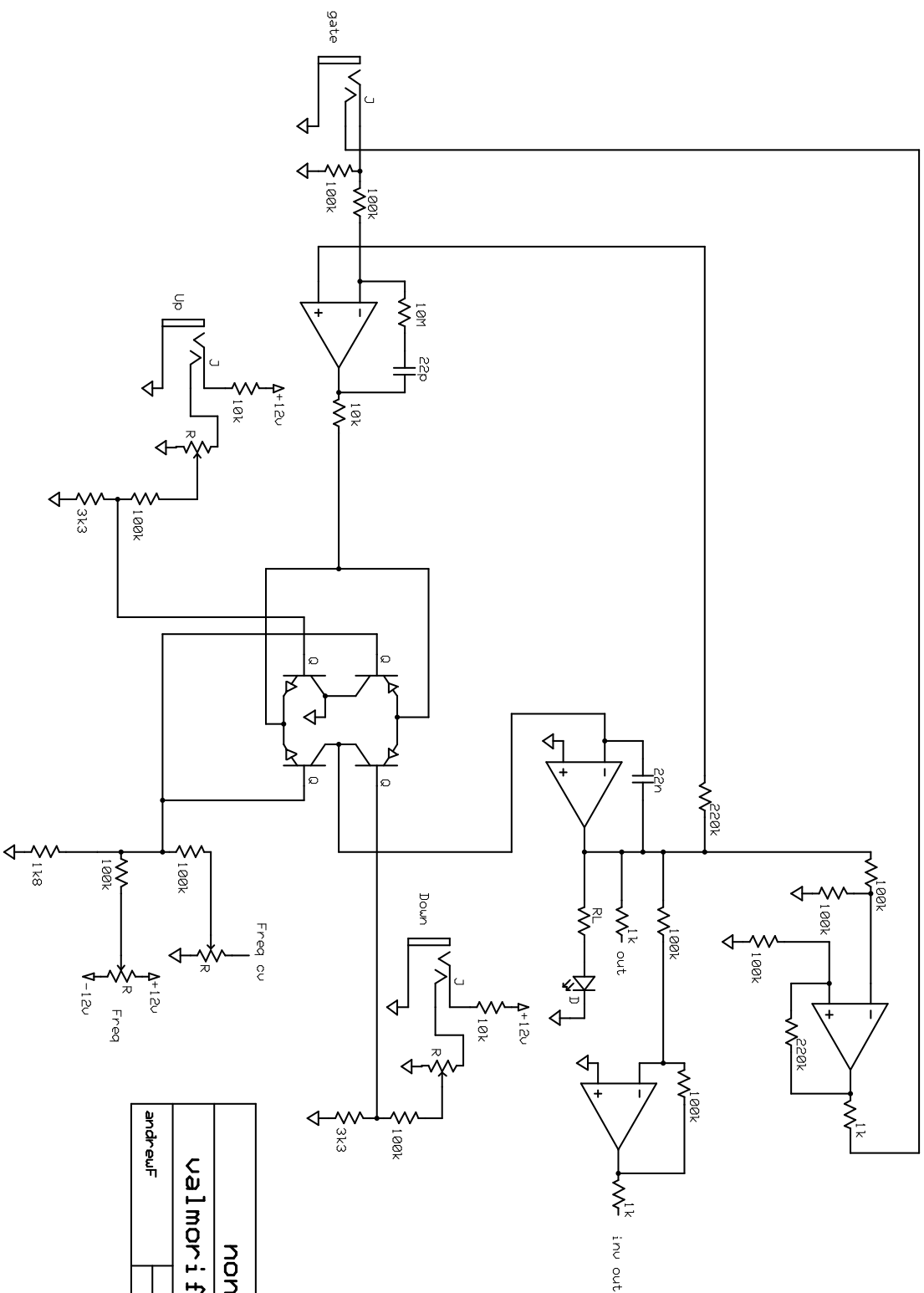
H09312NA B100K L15KQ-006

9mm single gang knurled shaft B100K rotary potentiometer ,no tab.  
hardware (nuts+washer) .shaft dia 6.0mm

For regular shaft (note these are 6mm, ask if you want 6.5mm), you want

RV9312NO-SB15A1.5-B104-060 no tab

9mm single gang B100K rotary potentiometer,no tab. hardware  
(nuts+washer) .shaft dia 6.0mm.



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