roucha legio

_travelers guide
_for filtering the solar wind

2	3	6
switches · 3 ways	cv inputs	hp

[freq] press [freq] hold › then noon = 12 o'clock tags = the panel drawing

stereo 12 dB state-variable filter · wavefolder before, after or both · gateable bypass

← back to the legio starsystem

= hold

01 what it is

ro_01

filter	stereo multimode svf, 12 dB/oct
fold	a wavefolder before, after or around it
tracks	freq cv tracks 1 V/oct
in L R	audio in · L feeds R if alone
out L R	stereo out, up to 16 V peak to peak
platform	a legio firmware · other firmwares

02 freq

ro_02 · enc

[enc] turn	cutoff · faster turns move further
[enc] tap	bypass · tap again to return
enc jack	freq jack · –2 to +5 V · 1 V/oct

10 first flight

ro_10 · the manual's tutorial

1. audio into in · cutoff ~500 Hz – 1 kHz
2. 1 + 2 fully left
3. try lp · bp · hp
4. an envelope or lfo into freq cv
5. gates into trig

03 res · fold

ro_03 · knobs 1 + 2

1 [resonance]	boost at cutoff · rings only when excited
2 [fold]	wavefolder amount

04 fold · type

ro_04 · s1 · s2 · top → bottom

s1 all	fold before and after the filter
s1 post · pre	fold after · fold before
s2 type	hp · bp · lp

__fig.01 : signal path

in → out



as the manual describes it

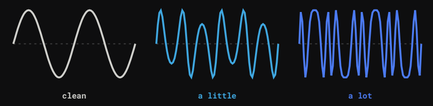
05 jacks

ro_05 · trig · cv · audio

trig bypass	dry while the gate is high · near +1.6 V
in L R	audio in · L feeds R
out L R	up to 16 V peak to peak
cv	freq –2 to +5 V · res + fold 0 – 5 V

__fig.02 : transfer

clean → heavy



08 patch ideas

ro_08 · the manual

rhythmic filter — all · lp
drum loop in · gate sequence to bypass

tremolo — post · bp
fast gate into bypass

screech — post · lp
envelope to freq · resonance up

tuned ring — pre · lp
a trigger in, pitch cv to freq, resonance up

__fig.03 : the panel

numbers match the legend



enc	freq · cutoff
1	res · boost at cutoff
2	fold · wavefolder amount
s1	fold · all · post · pre
s2	type · hp · bp · lp
trig	bypass · dry while the gate is high
cv	freq · 1 · 2 · freq –2…+5 V · others 0–…
in	in L / R · L feeds R if alone
out	out L / R · stereo out

09 specs

ro_09

size	6 hp · 1.5 in deep
power	140 mA +12 V · 22 mA –12 V
cv in	0 – 5 V · freq –2 to +5 V
trig	rising edge near +1.6 V
boot LEDs	cyan / blue
calibrate	power on with nothing in freq cv to recalibrate

design homage to the house of x / powers of x data pages — designed by tom muller with jonathan hickman · panel drawing after the noise engineering legio overlay template
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