

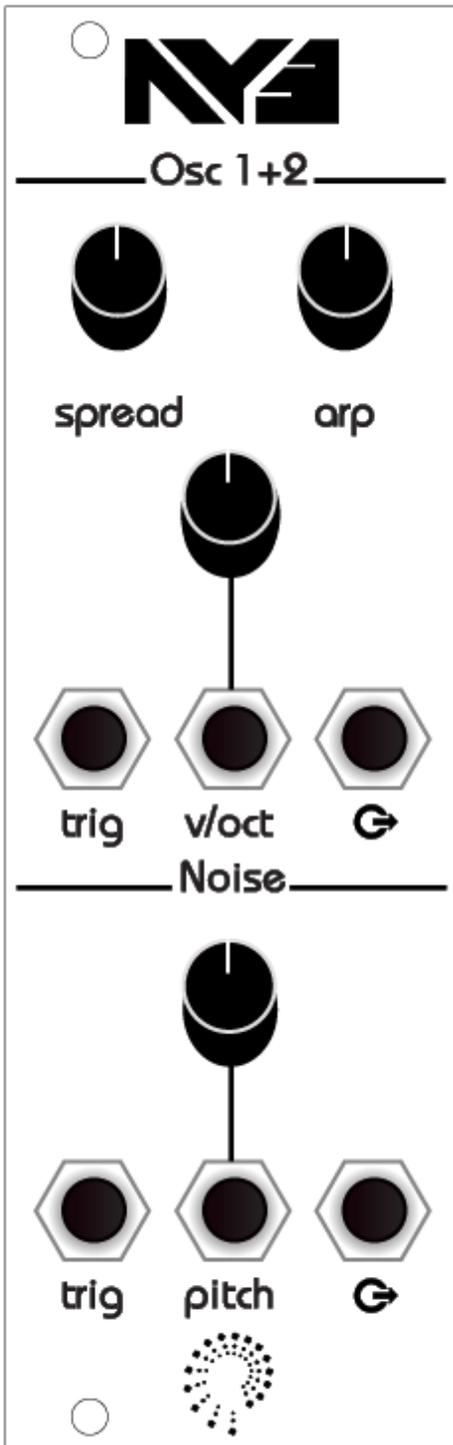
AY3-8912 VINTAGE COMPUTER SYNTHESIZER MODULE



user's manual

1- Operation

Osc 1+2



Osc 1 & 2 are detuneable square waves with volt/oct tracking, that can be switched or arpeggiated. Osc1 tracks to the 1v/oct standard within 5 octaves (+0-5v). Use the tune knob above the v/oct input to transpose to your needs within 1 octave range.

Spread Knob:

At 0% only osc1 is active.

Above 5%, osc2 is mixed with osc1.

Increasing the spread knob will increase osc2 pitch up to an octave above osc1.

Chords: Turn the spread knob above 80% for 3 chords: Major, Minor, fifth. Only active when Arp is running!

Arp Knob:

At 0% both oscillators play simultaneously.

Above 5% osc1 and osc2 alternate for arpeggiator effects.

Increasing the arp knob increases the frequency at which the oscillators alternate (0.5Hz to 125Hz).

Gate effect: When arp is above 5% and only osc1 is active (spread knob below 5%) osc1 will toggle on & off resulting in a gate effect.

The trig input has two modes (selectable via a jumper at rear):
In Gate Mode a 5v pulse will turn Osc 1 & 2 on or off
In Arp Mode a 5v pulse will clock the switch/arp, overriding the arp knob

Clock modes:

To boot the unit in either normal, deep or helium modes

Set the 3 upper knobs to either min, max or twelve o' clock position. The mode is remembered between power cycles until

overridden again by the special knob positions.

Noise

Osc 3 outputs digital noise for sound effects.

The pitch can be modulated via the pitch jack (0-5v DC)

The gate can be opened and closed via the trig input.

Note: Noise gate can be forced open (see 2-4: Noise Hold)



twisted electrons

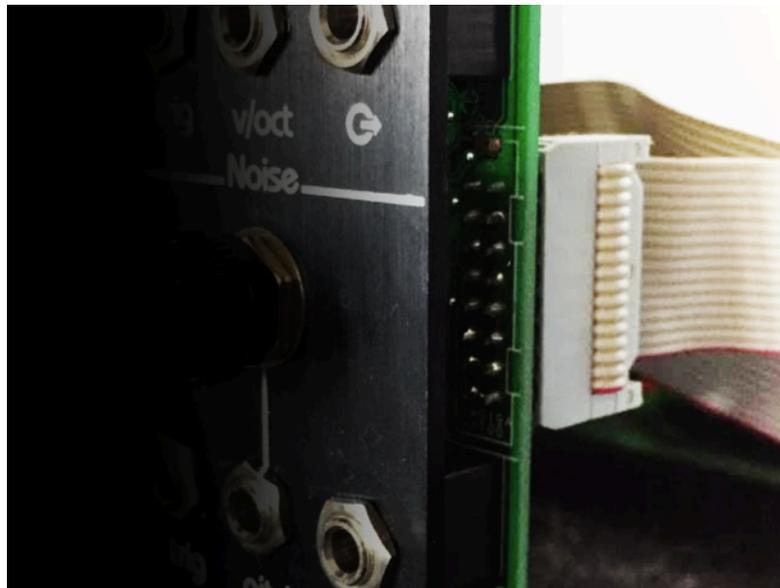
2- Setup

2-1 Power

Please carefully observe the polarity when connecting the power. Connecting the cable the wrong way can damage your module or system!

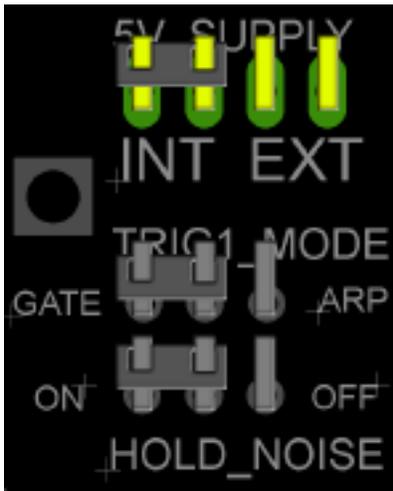
The cable should be connected with the RED (-12v) wire DOWN as indicated on the silkscreen of the PCB.

If in doubt please refer to the Eurorack (doepfer style) pinout:
[Eurorack Power Connector Pinout 16-Pin.](#)

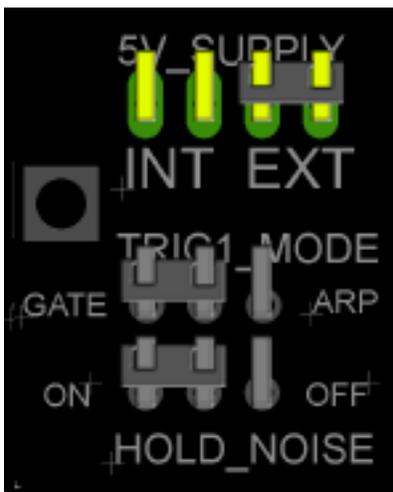


2-2 5v Supply Source

The AY3 requires +5V DC power to operate. On-board 12v to 5v conversion is provided if 5v isn't available in your system. This is configured via the top jumper on the rear of the module:



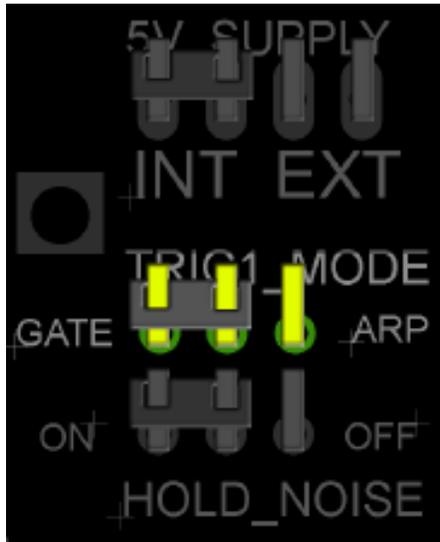
Above: no external 5v supply is required AY3 will provide 5v from the 12v (80mA) rail



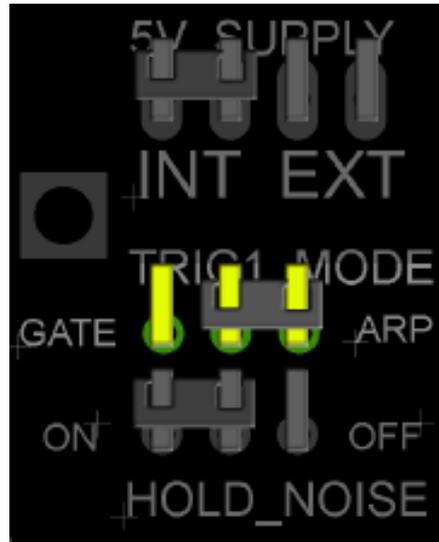
Above: the module requires a 5v supply (74mA) but will only draw 7mA from the 12V rail

2-3 Osc 1+2 Trigger Mode

The trigger input on osc 1+2 has two modes that can be set on the middle jumper behind the pcb:



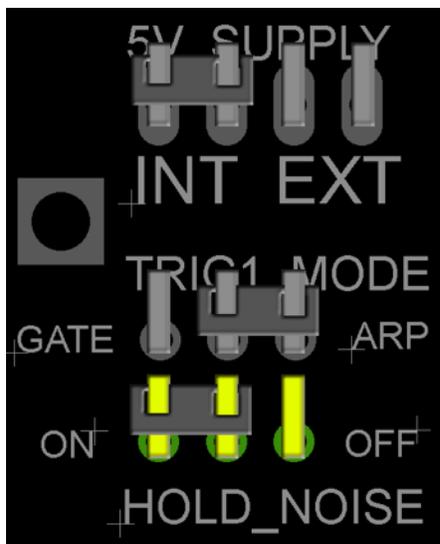
Gate mode: control the gate



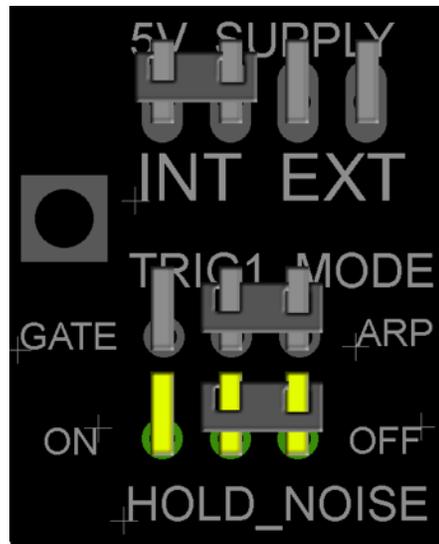
Arp Mode: clock the Arp/switch

2-4 Noise Hold

The noise channel's gate can be kept open (held on) by setting the third jumper:



Noise On



Noise controlled by trig jack

3- Thanks!

Thanks for giving AY3 a home!

We value your feedback, if you have any questions or concerns please email info@twisted-electrons.com

