

Eurorack module v1.2 4msPedals.com The 4ms Atoner is a versatile device used for

- Creating quantized melodies tuned to an input frequency
- Generating poly-rhythmic clock/trigger outputs
- Pitch shifting/jumping (downwards based on harmonics)
- General purpose CV mixer with offset.
- General mischief and mayhem...

Position

The Puppeteer's Hand

Sets the maximum frequency to be outputted. Frequencies inputted above this cut-off will be shifted down in pitch in a harmonic series, from 20kHz to 4Hz or lower.

HINT: Turn the oscillator to a medium pitch and fine-tune Position iust left of center to make melodies!

> Normal Audio range Poly-rhythmic Clock range High Freq. Audio range

Audio Section

Tone

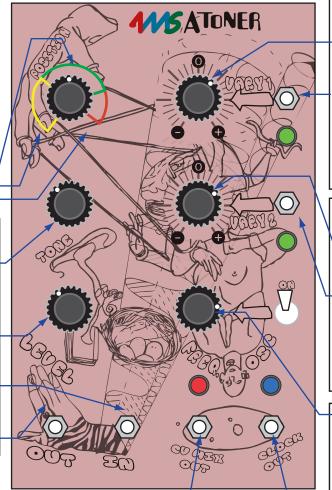
Blends between low-pass and high-pass (non-resonant filter) for the Audio Output

Level

Sets the level of the Audio Output

Audio Input mixes with internal oscillator

Audio Output



CV Position Vary 1

(Unity gain attenuverter)

Amount to vary

Unity gain at maximum setting Inverting left of center Non-inverting right of center

CV Input

-12/15V to +12/15V Hint: active range approx. 0 to 7V with Amount at 3:00, Pos at 12:00

green = positive voltage on input red = negative voltage on input

CV Position Vary 2

(Max gain 4.5 attenuverter)

Amount to vary

Gain of 4.5 at maximum settings. Inverting left of center Non-inverting right of center

-12/15V to +12/15V Hint: active range approx. 0 to 3V with Amount at 3:00, Pos at 12:00

green = positive voltage on input red = negative voltage on input

Internal Oscillator

On/off switch

Frequency

Approx. 100Hz to 10kHz

JUMPER on pcb:

(sets clock output)

- 1: Same freq as audio
- 2: Non-linear freg div
- 3: Audio div-by-32
- 4: Audio div-by-64
- 5: Audio div-by-2

CV Mix Out (with green/red LED)

Outputs the mix of Position, Vary 1 and Vary 2. This aggregate CV signal is controlling the Atoning effect.

Range: approx. -10V to +10V

LED shows green for positive voltages,

red for negative voltages

CV Clock Output (with blue LED)

+12V clock pulses

Useful for outputting a poly-rhythmic clock

from an audio source.

Hint: to get started, set the knobs as shown, plug a CV source (step sequencer, LFO, envelope) into CV Position Vary jack 1 or 2, and listen to the Output. Make sure the oscillator is on, or use an external VCO into the Input. Fine-tune the Position knob and the CV Position Vary Amount to get a repeating harmonic melody, and use the Clock Out to trigger/step/reset your CV source!