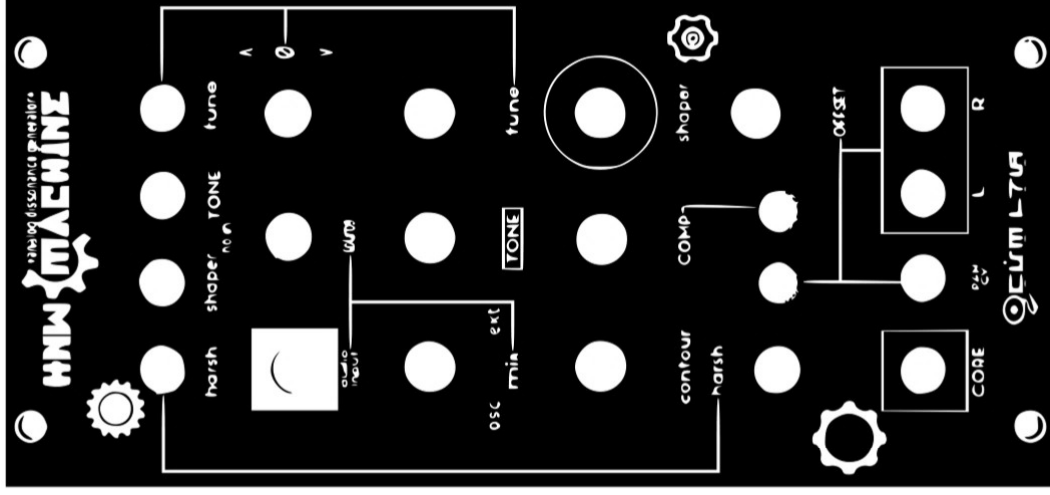


HNW Machine

+analog dissonance generator+



eurorack version
user manual

HNW Machine

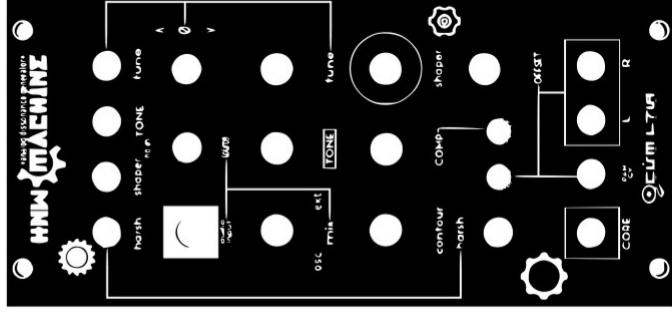
+analog dissonance generator+

HNW Machine module is a eurorack version of the classic HNW Machine analog dissonance-noise synthesizer, with additional controls and functionalities. It also have 3 outputs; 1 for the main or core sound circuitry of the HNW Machine, and 2 for left and right stereo output of the module for more thickness, variety, and harsh noise wall.

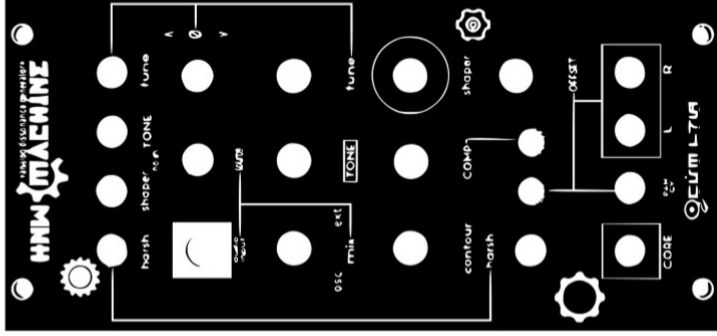
Adjustable Tone, Contour, and Tune knob controls for maximum harsh noise sound designing. The Compressor is a simple vactrol-based dynamic processor, and instead of vacuum tube overdrive, it has voltage-controlled Waveshaper for additional sculpting and saturation.

Five dedicated CV input for Tune, Tone, Harsh, Shaper, and Panning. It also includes a special features - "No Input" option.

What it does is, the module disconnects from main oscillators and audio input pushing the module to self-oscillate by means of high gain and impedance. This is different from feedback loop. The generated noise can still be manipulated with all the controls except the Tune and Mix knob.



INTERFACE:



TONE - Controls the filtering of the sound. Its CV input is a vactrol-based modulating the tone from crispy to muddy.

- Λ** - Sets the frequency of the internal oscillator. Up is high, Down is low, and middle is nothingness. It generate some kind of white and random noise depending on the
- Ø**
- V** Tune knob position.

TUNE - and its CV input adjust the frequency modulation of the internal oscillator. Ironically this is where you "fine tune" the dissonance of the HNW Machine.

HARSH - Configures and disfigures the amount of distorting. Flip up for chaotic harshness and flip down for mild fuzzy drive. Its CV input adds another echoey-mangling effect to the overall sound.

CONTOUR - It shapes the amount and intensity of the overall sound, colour, and texture.

INTERFACE:

SHAPER – Is a simple waveshaper. The pot and CV input modulates voltage clip and overtones, almost like a VCA. At full left turned, the saturation is subtle and at full right pumps up some distortion. Middle position is the sweet spot for the CV input.

MIX MODE – Flip down to access either the main oscillator or audio input, flip up to access No Input or the self-oscillating side of the module.

MIX – Mixes the volume of external audio and internal sound source before going to the slaughter section of the machine. Full left to access main oscillator, full right to access the audio input, inbetween is the mix of both.

COMP – Controls and adjust the amount of compression. the red led will lights up as you tweak it clockwise. It will push up the quiet sound and push down the noisy one, to set some sort of dynamic balance.

AUDIO INPUT – Accepts line or modular level external audio input.

OFFSET – Act as a panning control for the stereo output. It also attenuate the Pan CV input and it turned on/off the yellow led as a pan indicator.

PAN CV – Accepts voltage control input e.g. LFO, Envelope, Gate, etc. It modulates the panning of L and R output. The yellow led as indicator.

CORE – This output generates the core/classic sound generator of the HNW Machine. Slightly mild than the Main Out.

MAIN OUT (L and R) – This is where you get the full harsh noise wall swinging left and right. The outputs harshness and loudness varies, depending on the parameters set up.

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SYNTHESIS DIAGRAM

HNW Machine Eurorack version has 3 modes to generate sound. Two uses the main oscillators mix with external audio input, and one with no input.

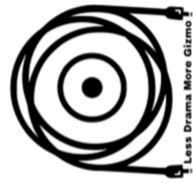
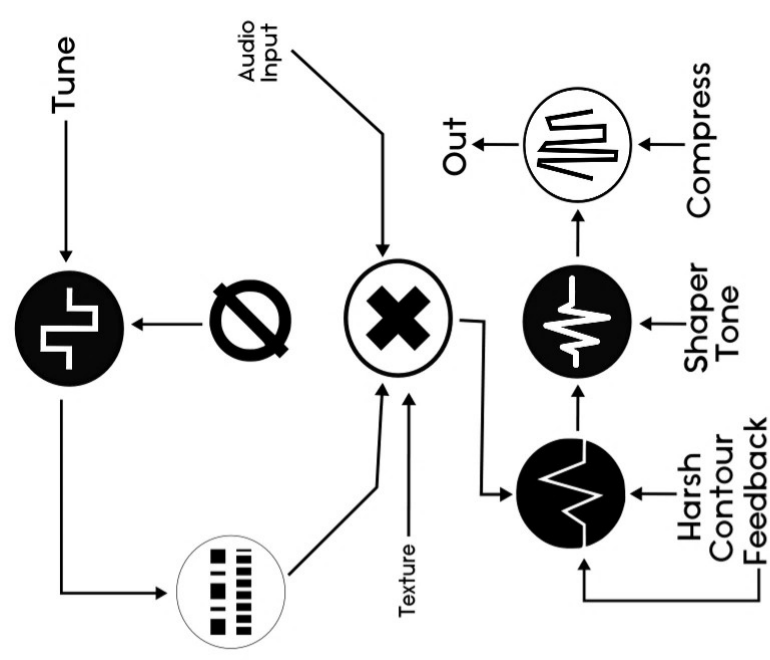
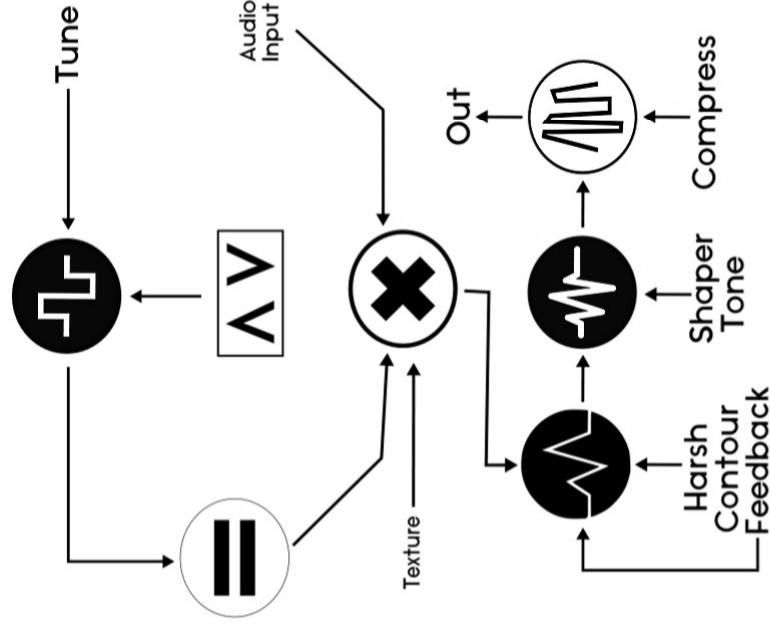
The ESSENCE setting is a choice between high and low frequency for the main oscillator, it determines the timbre and raspiness of the sound.

The NOTHINGNESS setting starves the main oscillator without proper frequency range, which pushes it to generate some kind of random type-white noise.

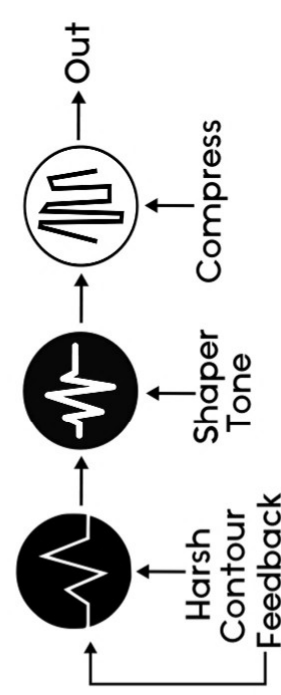
The NO INPUT setting is literally has no sound source, the generated noise and statics are purely came from the processor section of the HNW Machine itself.

ESSENCE

NOTHINGNESS



NO INPUT



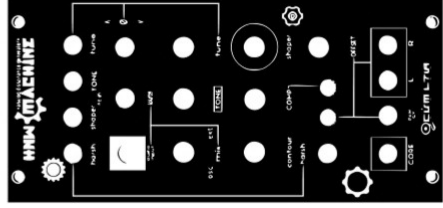
Less Drama More Glizmo

Tech Details:

MODEL	HNW Machine XL
CLASS	Noise/Effect Generator
TYPE	Eurorack
WIDTH	12hp
DEPTH	36mm / 1.4 inches
HEADER	10-pin (2x5) power
+12V	< 96mA peak
-12V	< 24mA peak
+5V	0

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Calibration:

HNW Machine Eurorack is pre-calibrated but it can be re-calibrated at anytime if needed.

Pitch-tone calibration can be done by turning the variable resistor (color blue, labeled as Texture) at the back of this module. Set first the Harsh toggle down, turn the Contour knob a little up from max, counter-clockwise, then turn the variable resistor left to right and you will hear an oscillation from low to high range frequency. Set it to your liking.

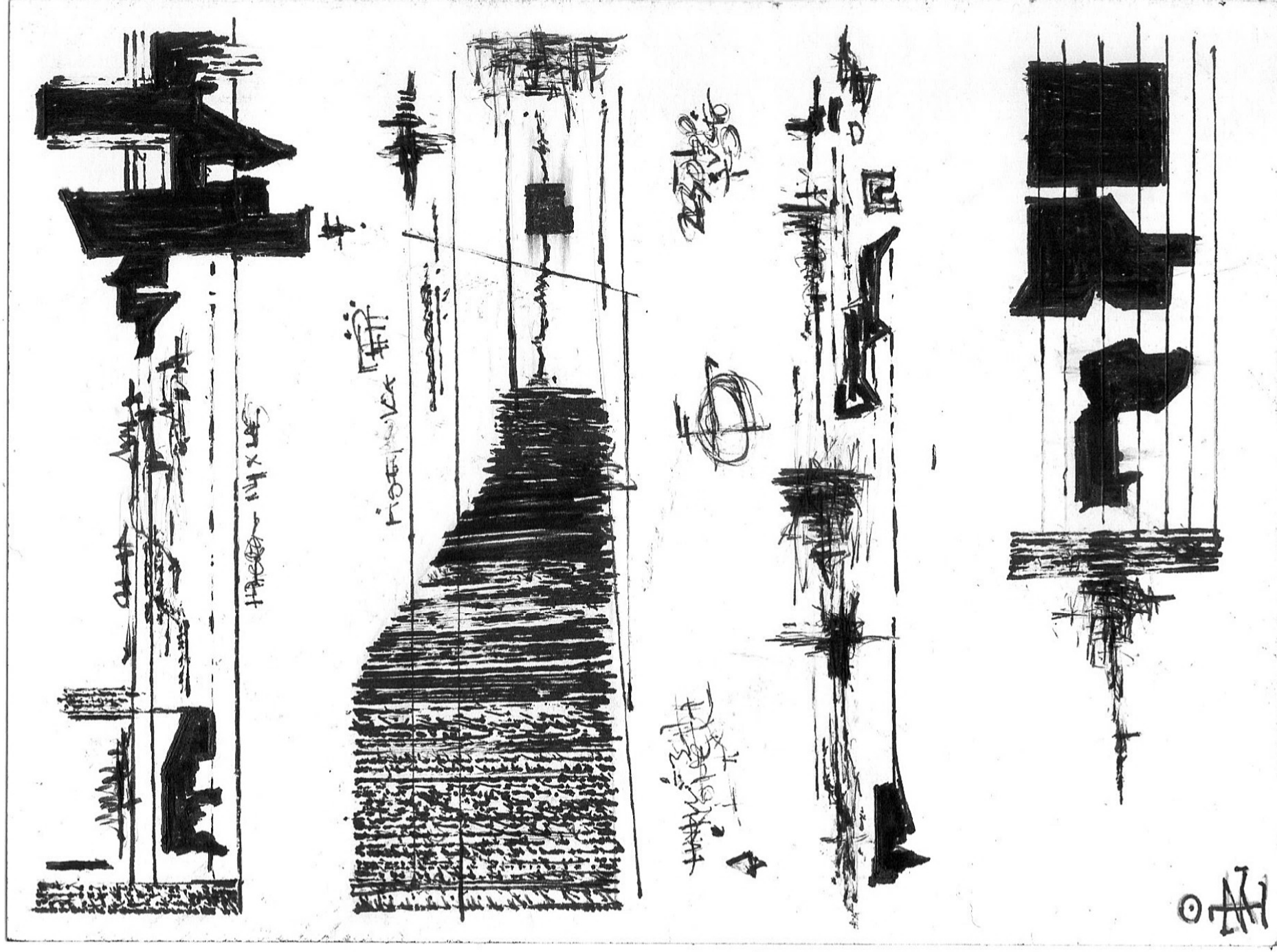
Stereo-panning calibration can be done by tweaking the variable resistor (color blue, labeled as Vactrol Balance) at the back of this module. This will set how much is the intensity and amount of sound going to left or right. You will see the white light of 2 vactrols beside it swingingly lighten up. Balance it more with OFFSET knob and set it to your liking.

REMINDERS:

- *For safety, turn off the power of your modular system first before connecting this module to the bus board.
- *Double check the polarity of the ribbon cable. The red line should match the -12V rail both on this module and on the bus board.
- *Although I put protections for the circuits in this module, i do not take any responsibility for the damages caused by wrong power supply connection nor application.
- *Use only the required power supply voltages and polarity. Double check everything, turn on your modular system, test the module, and enjoy! d[o-o]b

Harsh Noise

Graphical Notation





Thank you for purchasing
HNW Machine
euro rack version



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