

Crossfold

Read First!

Improper or unsafe installation can cause damage to property or people. Turn off your modular system before installing. Be sure to connect your Crossfold to the correct pins on the distribution board, and to connect the power connector with the correct polarity. -12 is labeled on the PCB power connector. If you are unsure of the correct installation of this device, do not attempt installation, seek the help of a qualified technician.

What the hell did I buy?

The Crossfold is a new concept wavefolder: A high quality, compact, 8-stage, dual voltage-controlled crossfader, analog wavefolder/waveshaper capable of producing subtle to extreme distortion, folding, and experimental synthesis.

Voltage controlled balance of two audio sources before processing through the high fidelity 8 stage wavefolder creates "crossfolds", unexpected and complex interactions of sound that can resemble through-zero FM synthesis, bizarre distortion, and even more mysterious results.

The fold and range controls with voltage control provide the main intensity level, with the range control setting the scope of the fold control, traveling from single folds, up to eight, further into clipping, which compresses and offsets the folds both into the positive and negative range. A built in output limiter allows you to explore clipping effects without large volume spikes, while still allowing for a musical dynamic range.

The output stage has 3 modes selectable by a switch on the front panel: a voltage-controlled dry/wet of the input crossfader (great for balancing fundamental tones Vs added harmonics), wet vs. input 1 (great for mixing signals for the wet signal while maintaining a single dry signal), or as a final VCA to complete a voice or provide amplitude modulation of the output.

The Crossfold is capable of combining sources to produce low punchy basses, glassy marimbas, screaming synced leads, morphing alien drones, and much more. It even sounds amazing on bass guitar, thanks to its smooth distortion capabilities!

Fade CV and control: Sets the balance of mingling the two input signals. If only one signal is input, acts as VCA. Try modulating with a slow attenuated LFO.

Fold CV and control: Main intensity control for the 8 stage wavefolder. Goes from off to the full Range, set by Range. Try with opening with an envelope.

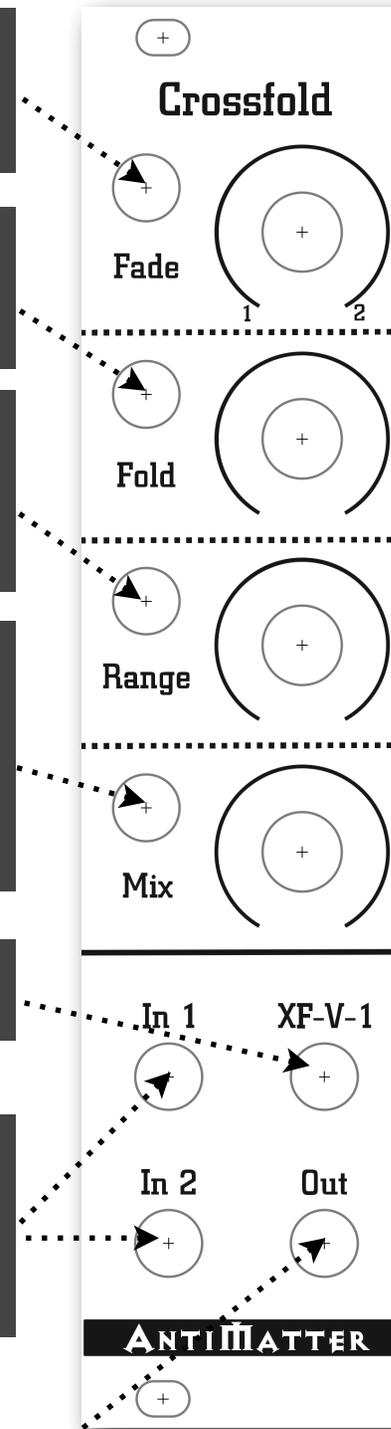
Range CV and control: Sets the scope of Fold (both knob and CV) from subtle, to 8 stages of folding, into clipping. Try modulating with a sequencer, clock divider out, or LFO.

Mix CV and control: Output level control. Behavior depends upon the position of the triple switch on the bottom of the Crossfold. Fully open, the output is always wet. The closed signal is as follows: XF = the dry output of the input cross fader, V = VCA (no signal), 1 = the dry output of signal 1 only. Try with slow attenuated LFO.

Mix switch: Selects Out mode. See Out description above.

In 1 and In 2: Input modular level sources to be processed. Curvy waveforms provide the best results. Try with a sine waves or the output of a self-resonating filters to start. Two sources will produce the most interesting results

Out: Main signal output.



Maximize your Crossfold:
The CF excels at mixing and mangling signals. It works best when at least one of the input signals is smooth (think sine oscs, 808 kicks, etc...).

Experiment with mixing signals in your system, two basic sine oscillators (or self oscillating filters) track from the same sequencer can create a complex FM-like voice! Mix wavetables, drums, two complete voices sequencing against each other, delayed material, etc...

Since the Crossfold multiplies the harmonics of many signal types, you may get better results if you filter harmonically rich sources before or after processing.

A sawtooth osc going through a resonant filter before processing can make for a very interesting acid voice!

Try using the Mix control to create dry/wet mixes. For example, a drum sequence in In 1 VS a sinewave in In 2. With the Mix switch set to 1, the dry signal will pass only the drums, while the wet will have the Crossfolded drum/sine interaction!

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