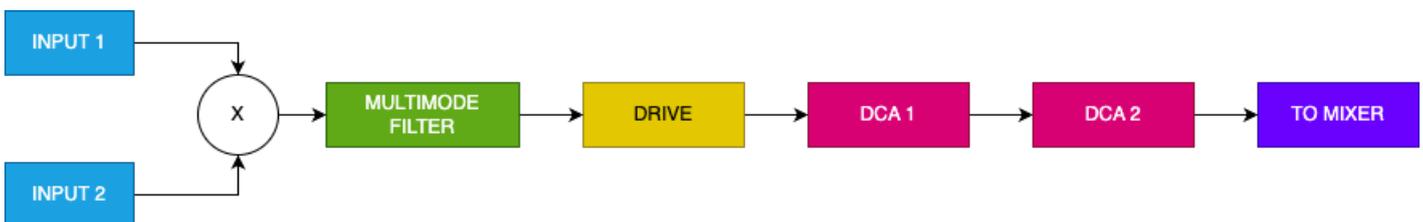


Crossmod

General information

This Machine features a choice of different cross-modulation algorithms combining two of Antigone's voices to form a third one. The results can be hard to predict and this feature is more of a bonus to see what you can get out of the voices you have set up already.



The cross-modulated output goes into a [Filter section](#), then a Drive section and finally an [Amp section](#) before going to the [Mixer](#). Go to the respective sections of the manual for more information on the Filter and Amp Sections.

Main screen of the crossmod



Input tab

Select the Carrier and Modulator voices using the first two knobs.

Crossmod tab

Vol In 1	Vol In 2	Algo	Timbre
Controls the volume of the Carrier voice	Controls the volume of the Modulator voice	Select one of the 6 cross-modulation algorithms. Refer to the chart below for an overview of those. This parameter cannot be modulated.	Depending on the chosen algorithm, it changes the timbre of the sound. (crossfade between dry and modulated sound for example)

Cross-modulation algorithms reference :

XOR	Modulo	Ring Modulation	Ring Modulation 2	Sub	Negative - Positive
Performs cross-modulation between two audio signals using the bitwise XOR (exclusive OR) operation.	Performs cross-modulation between two audio signals using the modulo operation.	Performs a ring modulation between two audio signals.	Performs a diode based ring modulation between two audio signals.	Performs a gain then a subtraction between two signals.	Keep the positive part of the first signal, and the negative part of the second signal.

How to use it ?

As it is a particular machine that require 2 others instruments as source to works, it can be more tricky to use.

What I recommend is to create 3 mono instruments:

- The first two instruments with the machines of your choice—load only the machines without envelopes to use them as oscillators.
- The third instrument with the crossmod machine.
- Configure the *Instrument Control* of each instrument so they respond to the same CV/Gate input or the same MIDI channel.
- In the crossmod machine, select *Voice 1* as the *carrier* and *Voice 2* as the *modulator* (corresponding to your mono instruments 1 and 2).
- You can add envelopes to the filter and a DCA in the crossmod machine.

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