

# AM Chain v2.0 by NOISS COKO

## DESCRIPTION



AM Chain is an audio effect that uses four modulation layers, where amplitude modulation frequencies are only defined using musical notes. For instance, if the selected note is A3, its frequency will be equal to 440 Hz.

Each layer has its own level, amount and rate configuration. Their individual outputs can also be routed to the next layer before going directly to the main output.

## FEATURES AND FUNCTIONS

### Modulation Section

AM Synthesis is based on a carrier or main signal, which amplitude is affected and modified by another source, also called the modulator. This device offers four layer of modulation, each one integrated by an oscillator with four different waveforms that can be used to modulate the incoming signal amplitude.

#### Layer Tab

Displays the group of values and parameters that correspond to each one of the four available layers.

#### Rate

Determines the modulation speed or frequency. Rate values will be represented by musical notes. For instance, for A notes, rate values will correspond to 220Hz, 440Hz, 880Hz and so on. This parameter establishes the frequency of the sidebands that are generated by this process and added to the spectrum.

#### Detune

Individual detune amount indicated in Cents, with a total range of  $\pm 100$ ct ( $\pm 1$ st).

#### Wave

Selects the oscillator waveform that modulates the incoming signal amplitude. Four waveforms are available: **Sine**, **Sawtooth**, **Triangle** and **Square**.

#### Random

Randomly assigns rate values each time it's selected. This is a global parameter, thus all layers will be affected at the same time.



**It is very important to consider that in Ableton Live almost every single parameter variation is saved in the history. Therefore, every time a new set of values is randomly selected, all changes involved will be stored in the Undo/Redo History. Please use this feature being aware of this behavior!**

#### Route Toggle

In order to arrange their specific signal flow, each layer output can be set to **Main** or **Next**. While Main is selected, this individual signal will be sent straight to the device output, then mixed with all the others. If it's set to Next, the output of this specific layer will be inserted into the next one. Basically, this allows to create both parallel and series signal processing. Notice that the four arrows under the Dry/Wet parameter, also display a quick representation of the current routing configuration.

## Level

Sets the current layer output level, allowing to define a specific mix or balance between all the elements.

## Amount

Sets the intensity of the modulation that is affecting the amplitude of the incoming signal. This parameter determines the gain of the oscillator that works as a modulation source. A value of 0% will generate no amplitude modulation. Higher values will proportionally increment the way in which the main signal is affected by the oscillator. This parameter establishes the amplitude of the sidebands that are generated by this process and added to the spectrum.

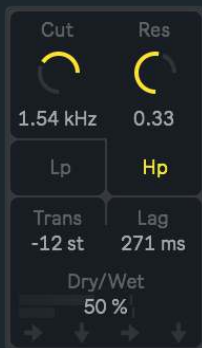
## Global Section

### Filter Cutoff

This parameter sets the filter cutoff frequency. All frequencies above (lowpass) or below (highpass) this point will be filtered out from the spectrum.

### Filter Resonance

Determines the emphasis of the frequencies near the filter cutoff area. High values result in a more aggressive character, while low values will define a cleaner type of sound.



### Filter Type

Switches between two different filter types, Highpass and Lowpass.

### Transpose

Global transpose amount indicated in semitones, with a total range of  $\pm 12$ st.

### Lag

Every time a new rate value is defined, Lag produces a smooth transition between this value and the previous one. How long the transition takes is determined by this parameter.

### Dry/Wet

This percentage represents the mix between the original (dry) and processed (wet) signals. A range from 0% to 100% determines the amount of wet signal that is being preserved, while exactly the opposite is defined for the dry signal.

## CREDITS

### ABOUT

### DEVICES

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AM Chain v2.0

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