USER GUIDE

HYSTERESIS_

HYSTERESIS // CREDITS

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2D Product Logo by DMAS3

Additional interface icons via https://tabler-icons.io/

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⚠️ *This symbol refers to important technical info*

💡 *This symbol refers to a tip, idea or side note*

SETUP:

⚠️ *As of version 1.3 Hysteresis is an Audio Unit or **VST3**-only, 64bit Stereo-only plugin.*

⚠️ *Presets from versions earlier than 1.3 are not compatible. If necessary, you should back up any sessions that utilize previous versions of Hysteresis before running the update.*

⚠️ *Hysteresis is a **stereo** plugin; be sure that you are instantiating it on a stereo track.*

1. Unpack the HYSTERESIS.zip file

2. Via the HYSTERESIS_INSTALLERS folder, run the installer for your system.

   a) **Windows Users**: Since this is a VST3 and 64-bit -**ONLY**- plugin, you will not be presented with any custom destination options during the installation process. The installer will automatically deploy the appropriate files to the correct system folder locations.

   b) **Mac Users:** Note that there is a separate installer for the factory presets, which you should run if you wish to install the presets on your system. If you encounter a preset installation error, we are aware of this potential issue and we have put together comprehensive instructions on how to resolve this. Please download them here: MAC PRESET HELP

3. Launch your AU/VST3 DAW and instantiate HYSTERESIS on a **stereo** track.

4. Load some audio onto the track and check out the factory presets to get a sense for how the plugin sounds and works.

⚠️ If you require tech support, you may reach us at: glitchmachines.sales@gmail.com

HYSTERESIS DESCRIPTION:

Hysteresis is a FREE glitch delay plugin geared toward creating robotic artifacts and abstract musical malfunctions. Hysteresis features a delay effect with stutter, lowpass filter and modulation effects thrown into the feedback signal path.

Easily infuse your projects with glitchy articulations and abstract textures. Process anything from drums and percussion to synth lines and sound effects. On top of being able to create incredibly wild signal mutations, Hysteresis can also be used to generate classic delay effects.
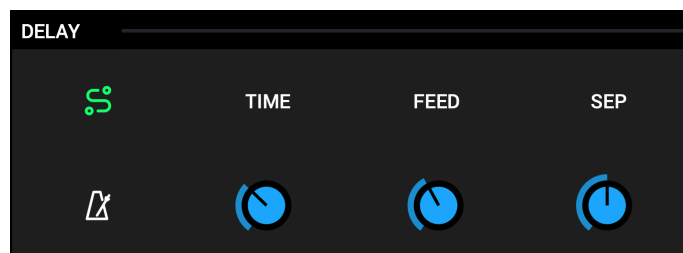
HYSTERESIS INTERFACE OVERVIEW:

The input signal first goes through a delay line on each stereo channel, but instead of sending the output directly back into the delay line, the resulting signal is sent to a stutter processor, then to a lowpass filter and finally to another delay line on the opposite channel which is modulated for creating chorus type effects. The output of the second delay line is then routed back to the first one on the original channel.

The stutter effect can be used to generate reverse delays, noisy pitch-shifting or raw granulation. The lowpass filter has an internal LFO to make the cutoff frequency oscillate, and the modulation processor can act as a subtle chorus or at the contrary as a noisy modulator by changing the range of the modulation rate. The delay can be synced to your DAW's tempo.

DELAY:

The delay's input signal goes through it and the processed feedback is sent back to it.

TIME :   controls the delay time. The value can either be in milliseconds or in bar divisions if the «Sync» switch (metronome icon) is active. In sync mode, if the tempo goes below 40 BPM, the value displayed may be inaccurate as values exceeding the maximum delay size will be divided by 2. Range : 5Ms to 1000Ms in free mode, or 1 to 128 bar divisions in sync mode

FEEDBACK : Range : 0% to 100% - Controls the amount of the feedback signal (processed by the other effects). Use this parameter with caution as high values combined with high values of the modulation section *amount* parameter can lead to very loud sounds. If this happens, you can reset the delay lines and the feedback parameters by pressing the «PANIC» button.
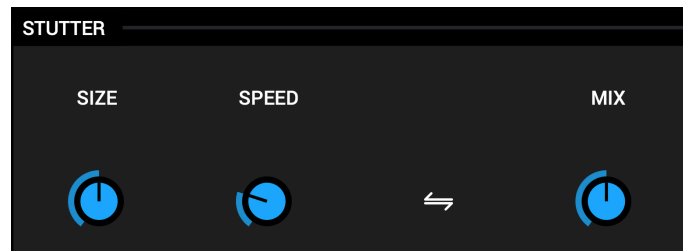
SEPARATION : controls how late the right channel delay will be compared to the left channel delay. If set to 0%, both channels will be delayed by the same amount. If set to 100% the delay time of the right channel will be twice the delay time of the left channel. This also impacts the stutter effect loop sizes. Range : 0% to 100%

PING->OUT : if enabled, the output of the first delay line (pre-feedback) goes to the effect mix, otherwise it is muted. If this parameter is not activated, the modulation amount parameter must be higher than 0 to hear the delay.

STUTTER:

This effect is the first in the feedback signal chain. It loops short slices of the incoming audio which can then be played back at a different speeds and backwards.

SIZE : controls the loop length. This value is proportional to the delay time (so it can be different on each stereo channel depending on the separation amount in the delay)
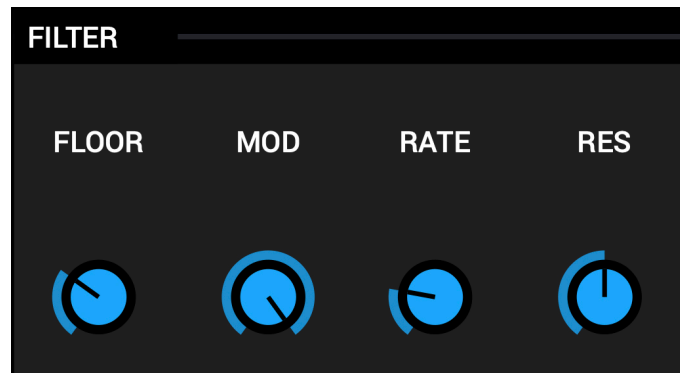
SPEED : controls the speed at which the looped audio is played back. A value of 100% means normal speed, 200% means twice faster, 50% means twice lower and a value of 0% stops the playback. Range : 0% to 400%

MIX : crossfades between the normal feedback signal and the output of the stutter effect. Range : 0% to 100%

REV : when switched on, the looped signal will be played backwards

FILTER:

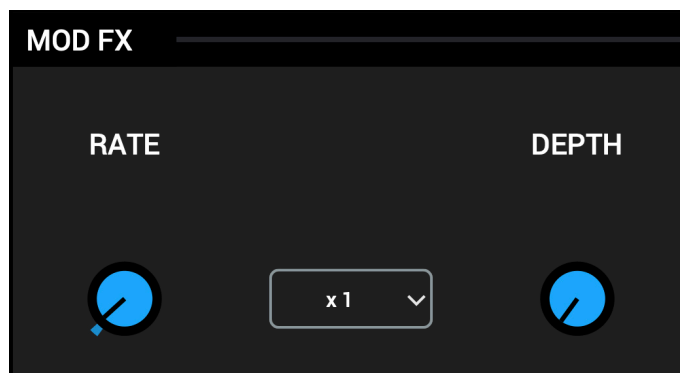The lowpass filter is applied to the output of the stutter effect.

FLOOR : controls the minimum cutoff frequency in case the filter is modulated, otherwise it sets the cutoff frequency. Range : 20Hz to 6kHz

MOD : controls the amount of LFO modulation applied to the cutoff frequency. Range : 0% to 100 %

RATE : controls the rate of the LFO modulating the cutoff. *Range : 0Hz to 20Hz*

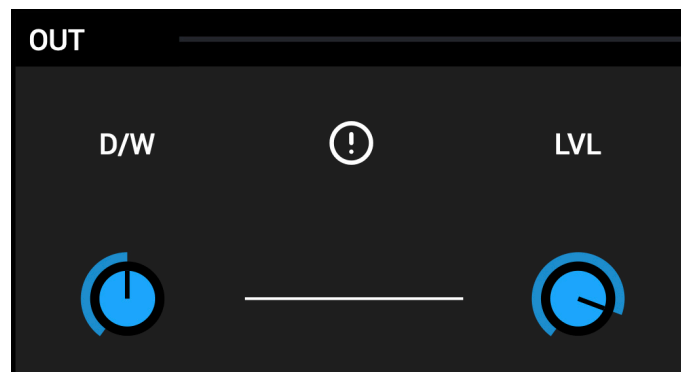**RESONANCE :** the filter resonance at the cutoff frequency

MOD FX:

This effect is applied to the output of the filter but happens on the opposite audio channel. It's then routed back to the feedback input of the first delay on the original channel.

RATE : the rate of the delay time modulation. Lower values will result in chorus type effects while higher values will result in noisy ring-modulation/FM type sounds. This parameter depends on the menu located at its right. When set to «Default» mode, the rate will be the one set by the knob, but it can also be divided by 10 or multiplied by 10. *Range : 0Hz to 600Hz (base range, can be multiplied or divided by 10)*

DEPTH : controls the overall output of the modulation effect as well as the amount of signal that will be fed back to this effect. Use this parameter with caution as high values combined with high values of the delay section feedback can lead to very loud sounds. If this happens, you can reset the delay lines and the feedback parameters by pressing the «PANIC» button in the output section. *Range : 0% to 100%*

MODULATION RATE: The modulation rate can be multiplied or divided by 10 via the drop down menu

OUTPUT:

D/W : a standard dry/wet mix knob allowing you to blend the amount of the effect with fully counter clockwise being zero effect, and fully clockwise being 100% effect.
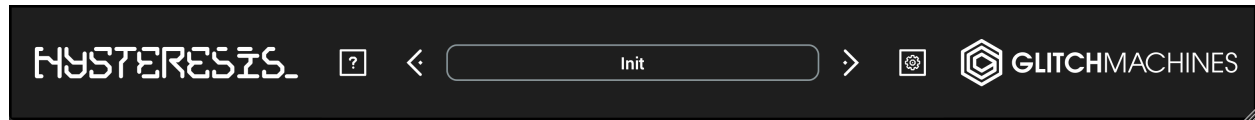
LEVEL : adjust the amplitude of the processed output signal in decibels (-70 to +6 dB).

⊙   **PANIC BUTTON :** Resets the delay lines and feedback parameters

⚠ *You can press the panic button in case of unwanted signal spikes*

PRESETS:

Clicking in the preset name field will reveal the preset browser and Save function.

You can navigate through the presets either by accessing the drop-down menu, or by using the navigational arrows to increment/decrement though the current list.

Clicking **Save Preset** will open a dialog box that will let you save the current preset on your hard drive using the extension ".hysp".

RANDOMIZER (?) : the randomize function randomizes all the parameters. This can yield interesting results when you are running low on inspiration.

CONFIGURATION MENU:

INIT ALL CONTROLS: reverts all plugin settings to their default values.

SHOW PREFERENCES FILE: A shortcut to the system folder where the plugin prefs are stored.

Trash (delete) this pref file to revert the plugin to its factory settings.

OPEN PRESETS FOLDER: A shortcut to the system folder where the plugin's presets are stored.

The plugin's current version is displayed at the bottom of the config menu

Thanks for downloading HYSTERESIS!

Please check out the rest of our products at our website: https://glitchmachines.com/