



# Lines

## User Guide

v1.0

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# Lines

*Experimental Multieffect and Feedback Synthesizer*

**Lines** is an effect plugin that crosses borders: it can be used as a creative mangler of all kinds of signals, ranging from lo-fi telephone sounds, lush phasing, warm distortions, crushing feedback, ring modulation and unique frequency shifting.

But even without any input, it can be an experimental synthesizer based on feedback, allowing for a wide range of inspiring rhythms, pulses, and organic soundscapes.

If you combine input and internal engines an unheard spectrum of sounds appears.

Lines is the sixth plugin made with Hainbach, composer and YouTuber known for his test equipment explorations.

Lines is available for MAC, PC, and LINUX (VST, VST3, AU, AAX, CLAP, 64-bit only), and also as AUv3 and Standalone on the App Store.

# Installation

## macOS

- Double click on the DMG archive to extract it
- Right click on the PKG installer and click open
- Follow the instructions to install the plug-in(s)

## Windows

- Extract the ZIP archive
- Double click on the setup file (.exe)
- Follow the instructions to install the plug-in(s)

## Linux

- Extract the tarball archive
- Run `./install.sh`
- Follow the instructions to install the plug-in(s)

# Registration

You can open the registration window by clicking on the icon ☰ next to the bypass button, in the top-right corner.

## Online

- If you haven't created an account yet, you can [sign up here](#)
- Just input your credentials into the text fields and click on Log In.



←

✕



**Log in to authorize**

Remember me

[Forgot Your Pass?](#)      [Sign Up](#)

## Offline

- Download the license file from your [account](#).
- Just drag and drop the license into the registration window or click on the *Load License File* button and browse to the downloaded license.



←

✕



**Offline activation**

Drop the license file here  
or

# Parameters

## Pulse Sequencer

<i>Selectors [1..8]</i>	Enables/disables the pulse steps
<i>Length</i>	Controls the length of the sequence
<i>Vol</i>	Controls the volume of the pulses
<i>Trigger</i>	Sets the Trigger mode, Free or Synced to the DAW transport
<i>Rate</i>	Controls the speed of the sequence

## Feedback

<i>Feedback</i>	Controls the amount of feedback
<i>LP</i>	Controls a Low Pass Filter in the feedback loop

## Noise

<i>Level</i>	Controls the amount of Noise generated
<i>Env</i>	Enables/disables the envelope to activate the noise only when an input signal is passing through

## Jitter

<i>Deg</i>	Controls the amount of Phase Jitter* in Degrees
<i>Freq</i>	Controls the frequency of the Phase Jitter

\* Phase Jitter refers to a periodic variation, or jitter, of the instantaneous phase of the received data signal.

## Freq Shift

<i>Polarity</i>	Sets the shift of the frequency up (+) or down (-)
<i>Hz</i>	Controls the amount of frequency shift in Hz
<i>Leakage</i>	Controls the amount of original signal bleeding through

## Non-Linear Distortion

<i>2nd</i>	Controls the amount of the 2nd harmonic distortion
<i>3rd</i>	Controls the amount of the 3rd harmonic distortion
<i>Polarity</i>	Sets the phase of the 3rd saturation: inverted (-), non-inverted (+)

### **Line Selector**

<i>Selector</i>	Selects 4 different filters configurations
<i>Width</i>	Controls the width of the filters
<i>HPQ</i>	Controls the Q of the High Pass filter
<i>LPQ</i>	Controls the Q of the Low Pass Filter

### **Trip**

<i>Wave</i>	Selects the waveform for the trip modulation
<i>Speed</i>	Controls the frequency of the trip modulation
<i>Jitter Freq</i>	Controls the amount of modulation applied to the Jitter Frequency
<i>Freq Shift</i>	Controls the amount of modulation applied to the Freq Shifter
<i>2nd Dist</i>	Controls the amount of modulation applied to the 2nd distortion
<i>3rd Dist</i>	Controls the amount of modulation applied to the 3rd distortion
<i>Feedback</i>	Controls the amount of modulation applied to the Feedback level
<i>Noise</i>	Controls the amount of modulation applied to the Noise level

### **Momentary Buttons**

<i>Phase Hit</i>	Temporarily invert the phase of the input signal
<i>Amp Hit</i>	Temporarily increase the volume of the input signal
<i>Amp Drop</i>	Temporarily decrease the volume of the input signal

## **Master**

*Input*

Controls the amount of Input signal

*Mix*

Controls the mix between Dry and Wet signals

*Output*

Controls the amount of Output signal

*Limiter*

Enables/disables the limiter emulation on the output



# Axel Line Simulator



Lines has a rare real-life inspiration, the **Axel Line Simulator**, made in the 1970s in Jamaica, New York by long gone Axel Electronics.

Despite its golden disco look, the Axel was never intended as a piece of music equipment. It was used to simulate signal loss over telephone and data lines. It mimics the „worst case“ for message transmission, using a plethora of unique analog effects: jitter, noise, intermittent pulses, frequency shift, distortion, bandpass filters for various bandwidths, and even playable buttons for phase, amplitude and dropouts. This combination made Hainbach's spider sense tingle, as he came upon it on an auction site. Assuming it would be a great lo-fi tool, he had it restored. And yes, it makes a fantastic telephone voice, but the true surprise lies elsewhere.

## Feedback Patching

By routing the unit's output back into itself a world of liquid rhythms, throbbing basses, and tropical birds appears. It becomes a playable instrument without any input, inviting playful exploration. If you add a piano, drums or a voice to your acid parrot sub bass

rhythm, they fold together in unpredictable and beautiful ways. Thanks to the built in limiter, it never sounds harsh or unpleasant, which is a constant risk with feedback patching.

## **The Plugin**

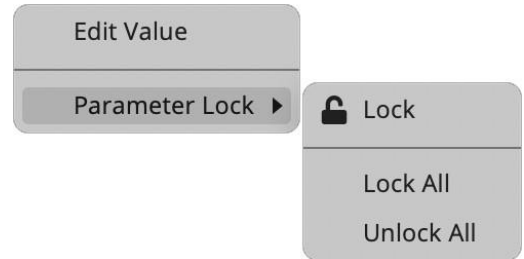
We took great care to simulate the feedback and signal path down to the component level. Everything is engineered to be as close to the original as possible. Once we got the sound right, we extended the ranges and possibilities: more range on the frequency shift, fine-tunable filters, an additional filter in the feedback path, a flexible pulse sequencer, as well as all the sync and modulation possibilities you are used to from our plugins. Let the presets show you the possibilities, but the real joy of Lines lies in exploration.

# Features

## Parameter Lock

If you want to keep the value of one or more parameters while changing presets, or when using the randomizer button, you can use the *Parameter Lock* feature.

Right click on a parameter and choose *Parameter Lock*.



*Lock / Unlock*

If locked, the parameter won't be updated when changing presets

*Lock All*

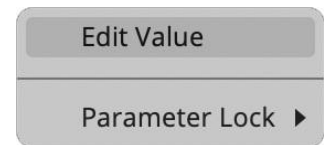
Locks all parameters


*Unlock All*

Unlocks all parameters

## Edit Value

You can also manually change the value for knobs and sliders. Right click on a parameter and choose *Edit Value*. You can also access this feature with SHIFT + Click.



By clicking on the icon  you can access additional features.

## Diode Temperature Drift

Enables or disables a modulation of internal diode temperature for the 2nd Harmonic Distortion section.

## Window Size

You can resize the plugin window using three predefined sizes (*small, standard, big*).

You can also resize the plugin window by clicking and dragging the bottom-right corner of the interface. Double clicking will reset to the standard size.

## Preset Copy / Paste

You can easily share presets by using this Copy/Paste feature.

*Copy to Clipboard*            The status of all parameters will be saved to the Clipboard

*Paste from Clipboard*        Load a preset from the Clipboard

## Enable / Disable Notifications

You can enable or disable the notifications for updates and news (shown by the bell icon). This option is global and it will affect all AudioThing plugins.

## Swap Mouse Buttons

If you are using the right button as your primary mouse button, the plugin might not recognize it. Use this option to enable it internally in the plugin.

This option is global and it will affect all AudioThing plugins.

## GUI Acceleration

You can enable or disable the GUI acceleration supported by your system.

The current and default library is OpenGL.

# End

## Where is everything?

The installer will place the plugins, presets, and other data in these folders.

### macOS

AU     /*Library/Audio/Plug-ins/Components/*  
VST     /*Library/Audio/Plug-ins/VST/*  
VST3    /*Library/Audio/Plug-ins/VST3/*  
CLAP    /*Library/Audio/Plug-ins/CLAP/*  
AAX     /*Library/Application Support/Avid/Audio/Plug-Ins/*  
Data     /*Users/Shared/AudioThing/*

### Windows

VST     *custom path from the installer*  
VST3    \*Program Files\Common Files\VST3\*  
CLAP    \*Program Files\Common Files\CLAP\*  
AAX     \*Program Files\Common Files\Avid\Audio\Plug-Ins\*  
Data     \*Users\Public\Public Documents\AudioThing\*

### Linux

VST     ~/.*vst/*  
VST3    ~/.*vst3/*  
CLAP    ~/.*clap/*  
Data     ~/.*local/share/AudioThing/*

## Credits

DSP & Code	<i>Carlo Castellano</i>
Additional DSP	<i>Ivan Cohen</i>
Idea	<i>Hainbach</i>
Design	<i>John Gordon</i>
QA	<i>Giuseppe Marrazzo</i>

## EULA

Please visit [www.audiothing.net/eula/](http://www.audiothing.net/eula/) to review this product EULA.

## Thank You

Thank you for your purchase! We hope you will have as much fun using it as we had making this product.

For support, please visit [www.audiothing.net/support/](http://www.audiothing.net/support/)

For further help or any questions, please contact us here: [www.audiothing.net/contact/](http://www.audiothing.net/contact/)

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