



# **HINDER**

## **INERTIA SOUND SYSTEMS**

**Operation Manual**

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Manual version: v1.0.0

Inertia Sound Systems

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# 1 INTRODUCTION

Hinder is a delay plugin inspired by the bucket brigade delay design, but it also provides a rich and versatile signal flow, by incorporating compression, resonant filters, drive, bit reducer and modulation modules. Having decoupled delay times for each channel, width controls for reverse delay, overall timbre and many more, it is able to deliver a wide palette of delay, chorus and flanger like effects, but also with organic ambient tones, modelling classic tones, but at the same time being able to expand to new territories.

The plug-in features

- **Input saturation:** with a "Heat" control that beefs up the input signal.
- **A bit reducer** With controls for quantisation bits and bit reducer mix.
- **A delay core** With controls for delay for each channel that can also be linked, feedback, host sync, reverse delay, stereo width, timbre flavour and more.
- **High quality zero delay feedback, analog modelled, resonant feedback filters**, with controls for cutoff, resonance, filter type and db per octave.
- **Compressor:** on the feedback path with controls for response speed and compression amount.
- **Delay time modulation** with controls for morphing and modulation depth
- **Effect mix, and output volume**
- **Automated Parameters**
- **An intuitive and portable preset system**
- **A Help Display:** that explains the function of every parameter when the mouse is over it.

## 1.1 Supported OSs, DAWs & Plugin Formats

Hinder has been tested and runs on the following Os's and is available in the following formats

- Windows : Windows 10 / 11 x64 - VST / VST3 64bit - Ableton Live, Bitwig, Reaper
- macOS : 10.15 - 11.3 AU / VST / VST3 64bit. - Ableton Live, Bitwig, Reaper, Logic Pro X. Hinder is also built to support Apple Silicon.
- Linux : UBUNTU 20.04 VST / VST3 64bit. - Bitwig, Reaper.

## 1.2 Demo Restrictions

The plug-in demo is fully functional, but it cannot save or restore its state or save any presets. Furthermore the plugin will stop being active after 10 minutes of use. In order to continue trying, the plugin should be reloaded.

## 1.3 Hinder License

When you are purchasing Hinder, you can install it to up to 3 different machines. If you need to install it to more, you need to contact Inertia Sound Systems at <https://www.inertiasoundsystems.com>, to purchase further licenses.

## 1.4 Installation

- **Windows** Double click Hinder installer and follow the instructions. VST3 will be installed into **C:\ProgramFiles\Common Files\VST3** by default.

You can choose to install the VST2 version of plugin in your custom plugin folder or use the default location **C:\ProgramFiles\Common Files\VST2**.

The preset folder can be found into **C:\Users\your user name\Documents\Inertia Sound Systems\Plugin Presets\Hinder**.

The manual can be found into **C:\Users\your user name\Documents\Inertia Sound Systems\Manuals\Hinder**.

- **macOS** Double click Hinder.pkg and follow the instructions.

The Audio Unit plugin will be installed into **/Library/Audio/Plug-Ins/Components**, the VST into **/Library/Audio/Plug-Ins/VST**.

and the VST3 into **/Library/Audio/Plug-Ins/VST3** by default.

The presets folder can be found into **/Users/Shared/Inertia Sound Systems / Plugin Presets /Hinder**.

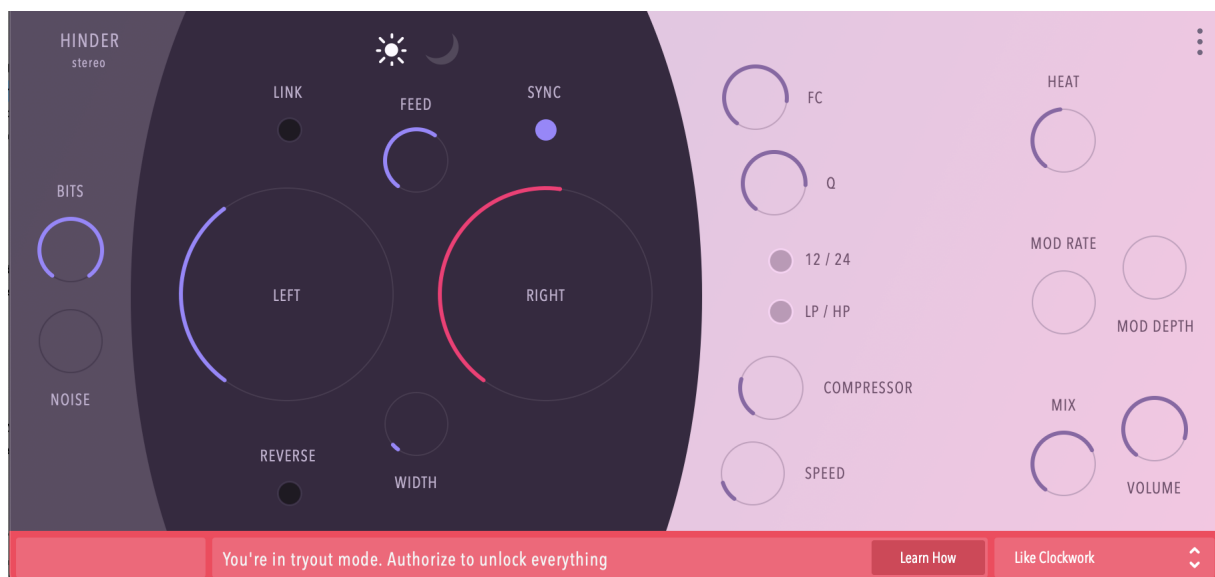
The manual is located in **/Users/Shared/Inertia Sound Systems / Plugin Presets/ Hinder**.

- **Linux** Uncompress the **Hinder\_1.0.0.tar.bz2**. Open a terminal, navigate to the Hinder\_1.0.0 folder and run the "install.sh" script.

The VST and VST3 plugins will be installed in the .vst and .vst3 folders respectively, under your home directory by default. The presets will be installed under the "**~/config/Inertia Sound Systems/Plugin Presets/Hinder**" directory. The manual will be installed into "**~/Documents/Inertia Sound Systems/manuals/Hinder**" folder.

## 1.5 Plugin Authorization & Deauthorization

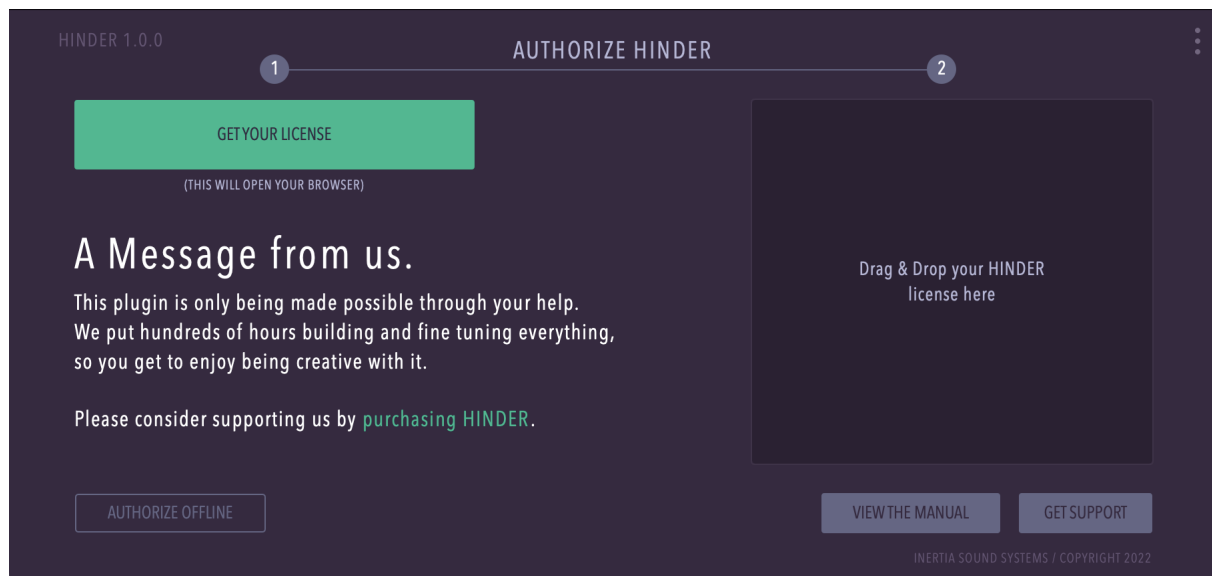
The first time and before you authorize, the plugin is loaded in try out mode (figure 1).



**Figure 1:** Hinder, try out mode

### 1.5.1 Authorization

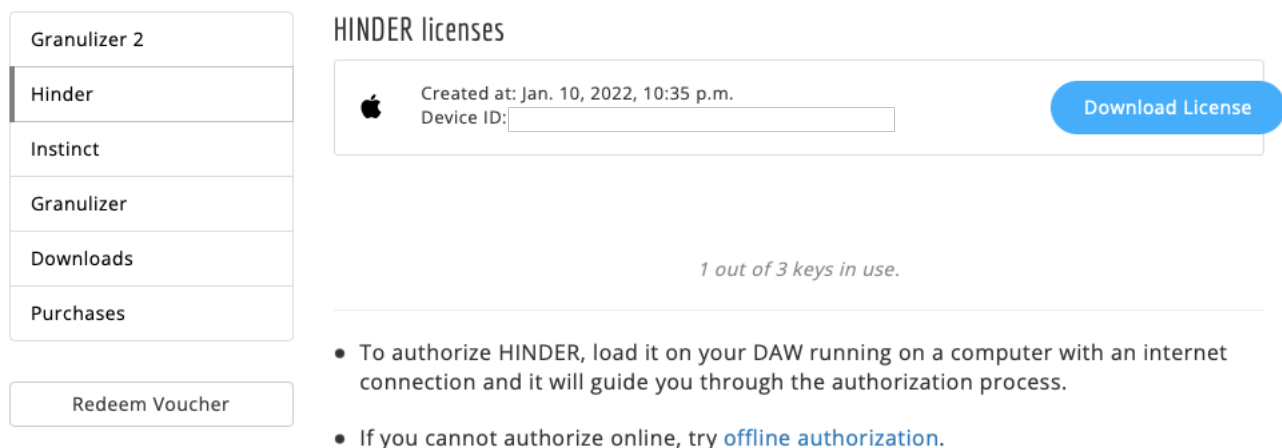
To authorize you can either press the "Learn How" Button at the bottom of the plugin or the gear icon at the upper right side. This will take you to the registration view (figure 2)



**Figure 2:** Hinder, registration view

There is two ways to authorize the plugin

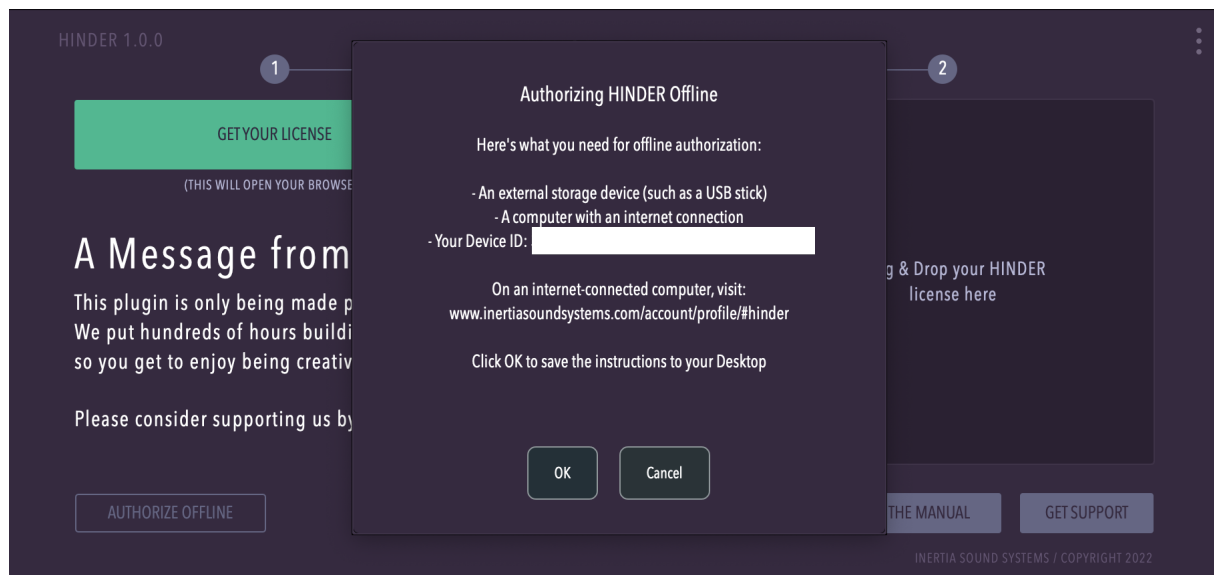
- **Online authorization:** pressing the "GET YOUR LICENSE" button will take you to the page of your account where you can download the license file of your copy. To authorize the plugin you



**Figure 3:** Hinder, license file

should just drag and drop the license file on the rectangle authorization area.

- **Offline authorization** Press the "AUTHORIZE OFFLINE" button. This will bring up a popup window with all the steps needed to authorize. By clicking OK in the dialog, the authorization instructions will be saved on your desktop as a text document. Followig those you will be able to carry out the offline authorization.



**Figure 4:** Hinder, offline authorization

## HINDER: Authorize offline

Please enter the Device ID provided by HINDER and click *Download* to receive your authorization file. You can then drag the file into HINDER to complete the authorization.

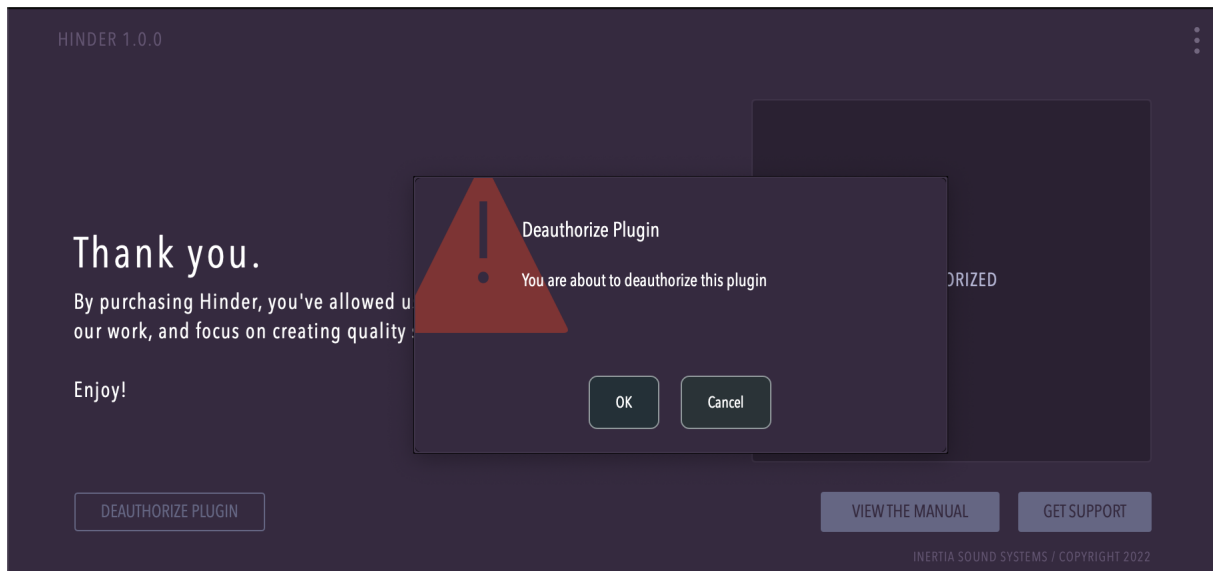
Device ID

[Download License](#)

**Figure 5:** Hinder, license file

### 1.5.2 Deauthorization

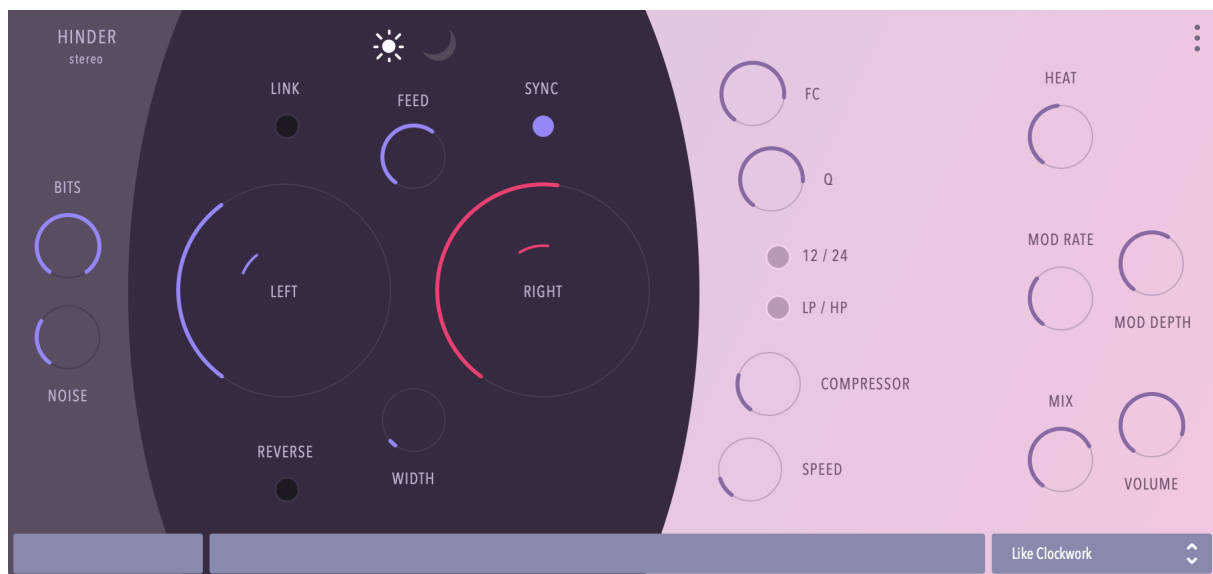
To deauthorize the plugin in case you need to transfer your license to a new machine press the "DEAUTHORIZE PLUGIN" button. When you deauthorize the license file will be deleted and new ones can be generated for a new machine.



**Figure 6:** Hinder, deauthorization

## 2 PARAMETERS & OPERATION

### 2.1 Overview



**Figure 7:** Inertia Sound Systems Hinder

Hinder features the following basic sections:

- **Input Section**, consisting of a saturation - heat and a bit reducer module.
- **Delay**, with main delay controls, sync, feedback, timbre etc.
- **Feedback Path Modules**, consisting of feedback multimode resonant filter, and compressor
- **Modulation**, for delay time, with rate and depth.
- **Output**, With Mix and Volume.



## 2.2 Signal Flow Sections & Parameters

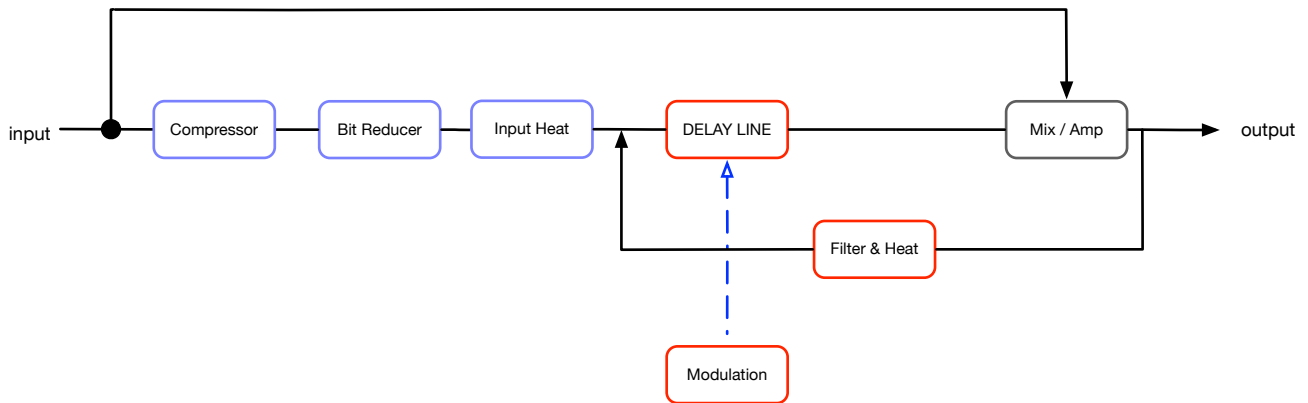


Figure 8: Signal Flow

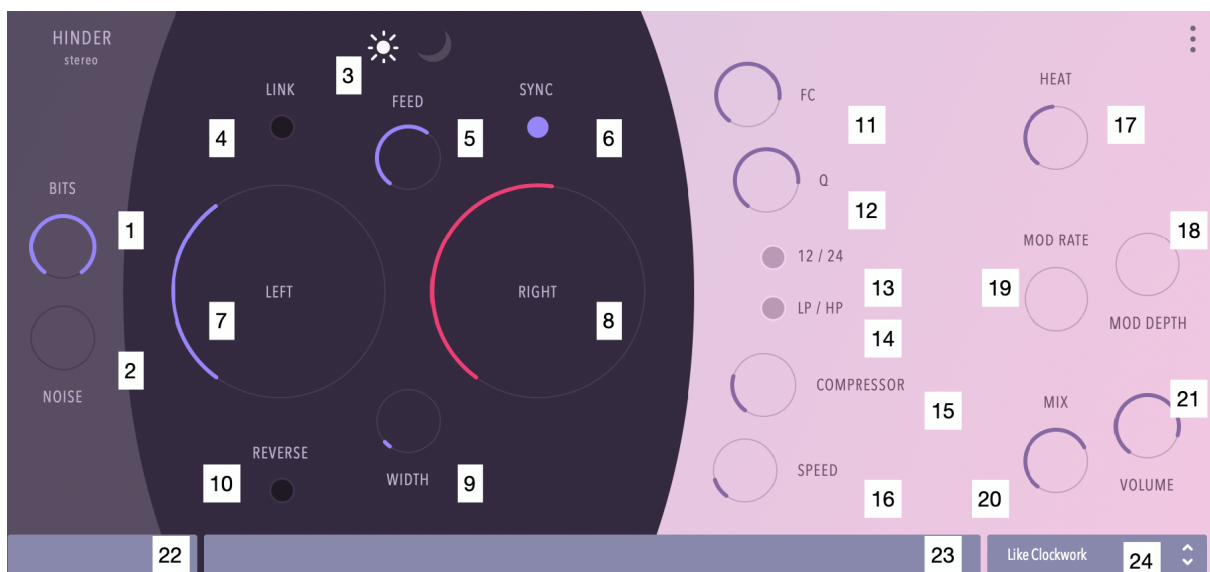


Figure 9: Parameters

1. **BITS:** Adjust the quantization bits of the quantizer module.
2. **NOISE:** Adds noise when bits are less than 16.
3. **COLOR:** Sets the overall timbre of Hinder, bright or dark.
4. **LINK:** When active, delay time is linked for stereo mode.
5. **FEED:** Sets the feedback amount.
6. **SYNC:** When active the delay time is synced to the host BPM.
7. **DELAY L:** Sets the delay time for the left channel.
8. **DELAY R:** Sets the delay time for the right channel.
9. **WIDTH:** Sets the amount of delay offset of the right channel delay, when the plugin is operating in stereo mode.
10. **REVERSE:** When active the delay buffer is reversed.
11. **FC:** Sets the feedback filter cutoff.

12. **Q**: Sets the feedback filter resonance.
13. **12/24**: Sets the db per octave.
14. **LP/HP**: Sets the feedback filter type (Lowpass or Highpass).
15. **COMP**: Sets the feedback compression amount.
16. **SPEED**: Sets the feedback compression time response.
17. **HEAT**: Controls the input saturation amount.
18. **MOD. DEPTH**: Sets the modulation depth of the delay time.
19. **MOD. RATE**: Sets the modulation rate of the delay time.
20. **MIX**: Sets the mix amount of the effect.
21. **VOLUME**: Sets the overall volume of the plugin.
22. **Parameter Display**: Shows the values of the tweaked parameters.
23. **Help Display**: Shows a tooltip whenever the mouse is over a parameter.
24. **Preset Browser**: Hinder comes with factory presets, and gives the user the ability to create custom ones. The presets are located into
  - **Windows** *C:\Users\user\AppData\Roaming\Inertia Sound Systems\Plugin Presets\Hinder*
  - **macOS** */Users/Shared/Inertia Sound Systems/Plugin Presets/Hinder*
  - **Linux** *~/.config/Inertia Sound Systems/Plugin Presets/Hinder*

In the actions section can perform the following

- **Save Preset**. A new preset is saved in the user preset folder. When a new preset is saved the plug-in loads it immediately.
- **Init**. Initialises the plug-in. All parameters are set to their default values.

## 2.3 Default Values & Parameter Fine Tuning

Each knob of Hinder can be reset to its default value by double clicking or by pressing alt + click on it. Fine tuning parameter values is possible by holding down control (Windows) or command (macOS) while tweaking a knob with the mouse.

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