



# LEAPWING ROOTONE

MANUAL V1.0



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## CHAPTER 1 – INTRODUCTION

### 1.1 Welcome

Thank you for choosing Leapwing. In order to get the most out of your Leapwing plugin, please take the time to read through this manual.

### 1.2 Product Overview

RootOne is designed from the ground up as a new way to generate and shape subharmonic frequencies. We set out to create the cleanest low-end possible, phase-aligned with the original, to deliver a natural sounding extended sub range. RootOne comes with 3 low frequency bands at variable crossover frequencies. After careful amplitude and phase analysis, each band looks for a frequency an octave above and generates a clean subharmonic note within the selected band.

There is also an additional 4th “harmonics” band, focused around the lower midrange, where you can add saturation. This allows low frequency sounds to cut through on smaller speakers. All in all, you’re given immense control over your low-end to create new artistic possibilities!

#### Features:

- *Unique Subharmonics Generator: proprietary algorithm delivers the cleanest low frequencies.*
- *Pitch Follower and Phase Alignment: instead of simply pitch shifting the signal, we use advanced analysis to generate subharmonics that are phase aligned with the source.*
- *Full Harmonics Shaping: Saturation module allows you to shape midrange harmonics, letting them cut through on smaller speakers*
- *Ultimate dynamics, drive and decay control: immense control to get your newly generated subharmonics exactly how you want them*
- *Simple yet Beautiful Design: Modern resizable Retina interface with unique design for an optimal workflow*
- *Multiple DAW & OS Compatibility: Available on Mac OSX (10.10 +), Windows 8, 10 (64-bit only) in AAX-Native, VST, VST3 and AU*

## CHAPTER 2 – AUTHENTICATION

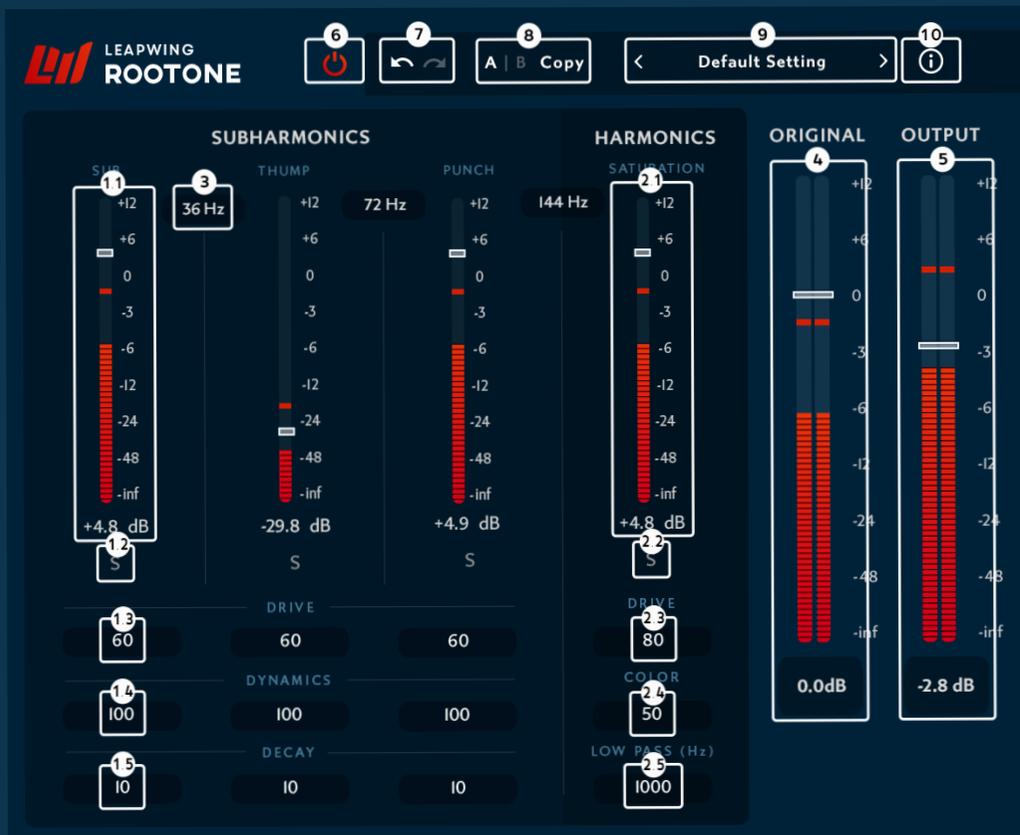
When opening the plugin for the first time, you will be asked to enter your email address and serial number to authenticate the plugin. The email address should be the same one as you used to create your online Leapwing user account. The serial number has been sent to you via email after your purchase, and can also be found in your Leapwing account page.

<https://www.leapwingaudio.com/my-account/>

On the Leapwing account page, you are able to manage the Hardware ID (computer) connected to your license key. If you want to move the license to another computer you own, you can do this by deleting the current Hardware ID, and activating the license on the other computer.



## CHAPTER 3 – INTERFACE AND CONTROLS



### 3.1 Sub / Thump / Punch

#### 3.1.1 Level Faders

Gain faders for each of the 3 bands. In this section, we generate the subharmonics, which can be controlled per band. The algorithm checks for a frequency an octave above the band that is selected and will generate a pure tone in that band.

#### 3.1.2 Solo

Solo-ing a band will mute the other bands as well as the original signal output.

Shift-click on a solo button enables XOR selection; all other solo buttons reset. Alt-click on a solo button resets every solo button.

#### 3.1.3 Drive

A level send, taken post level faders to send to the fourth “saturation” band. The further you push drive, the more level of that band it sends to the saturation section. By clicking on the value, a popup with a slider will open and allows you to drag between the values.

#### 3.1.4 Dynamics

Dynamics is based on the amplitude tracking of the original signal, and the dynamic range of the new low frequencies in each band can be controlled. At 100%, it tracks the original envelope and closer to 0, it will generate the new frequencies in a small and boosted dynamic range. By clicking on the value, a popup with a slider will open and allows you to drag between the values.

#### 3.1.5 Decay

This affects the overall amplitude envelope shape. With a short decay and transient material, the sub frequency will decay very quickly, and won't stay there after the transient is passed. With a higher decay value, the new frequency's energy lasts longer. This is completely signal dependent. By clicking on the value, a popup with a slider will open and allows you to drag between the values.

### 3.2 Saturation

#### 3.2.1 Level Faders

Same as for the push / thump / punch faders. Instead of generating new sub harmonics, this section generates new frequencies (harmonics) above the root tones in the signal. This fader controls the level going to the output.

#### 3.2.2 Solo

Solo-ing a band will mute the other bands as well as the original signal output. Shift-click on a solo button enables XOR selection; all other solo buttons reset. Alt-click on a solo button resets every solo button.

#### 3.2.3 Drive

The further you push drive, the more saturation/distortion will be generated on the signal of that band. By clicking on the value, a popup with a slider will open and allows you to drag between the values.



### 3.2.4 Color

Varies between symmetrical and asymmetrical distortion. Not to be taken literally, but more of a subjective view is that closer to 0 will give you a more tape-like distortion and closer to 100, it will sound more tube-like. By clicking on the value, a popup with a slider will open and allows you to drag between the values.

### 3.2.5 Low Pass (Hz)

A final low pass filter on the saturation section. In case you don't want this harmonic distortion to get into the midrange, you can set a Low Pass filter frequency that will make it roll off sooner. By clicking on the value, a popup with a slider will open and allows you to drag between the values.

### 3.3 Crossover Frequencies

Crossover frequencies between the 4 bands are variable. By clicking on them, a popup will open that allows you to drag between corner frequencies.

### 3.4 Original Level

The original or dry level, mixed into the output. This allows you to control the dry/wet balance.

### 3.5 Output Level

Final output trimmer that allows you to possibly compensate for added gain, in the output stage.

### 3.6 Main bypass button

Full bypass switch that maintains the plugin latency.

### 3.7 Undo/Redo

Undo/Redo arrows are located in the left side of the top bar. Basic undo/redo functionality applies to all parameters in the plugin, apart from changing presets. When changing a preset, the undo/redo history will be cleared.

### 3.8 A/B Comparison

AB comparison can be used to quickly store 2 different sets of parameters, and toggle between them to evaluate them in detail. At initialisation, both A and B are set to the same "Default Setting" state. When you start making changes to

parameters, they will be stored under A, while B keeps the values from before changes started. A is highlighted to show it is active.

Now you can toggle between state A and B by clicking the A/B button. When A is active, changes are stored under A; When B is active, changed are stored under B.

Clicking the Copy button will reset both A and B states to the current active set of parameters.

### 3.9 Presets

RootOne comes with a list of diverse presets, a dropdown menu is accessible by clicking on the preset name. You can also cycle through them by clicking the left and right arrows.

It is also possible to save your own presets; use the "Save as.." option for this. User presets will be automatically added to the list in the dropdown menu. It is possible to make your own subfolders in the preset folder, they will be displayed in the dropdown menu as subcategories.

To change the default preset folder location, first copy all presets to the desired new location, and then click Options > Change Preset Folder in the preset menu and select the new folder. Restore Factory defaults will reset all factory presets in the current preset folder.

Location of default preset files:

- MacOS: /Users/<username>/Library/Audio/Presets/Leapwing Audio/RootOne
- Windows: C:\Users\<username>\Documents\Leapwing Audio\RootOne

### 3.10 Info menu

Hidden behind the (i) button is a convenient list of following information:

- Version number of the plugin
- License Info: See Chapter 2 - Authentication
- Check for updates..
- Website: link to [www.leapwingaudio.com](http://www.leapwingaudio.com)
- Manual: link to the local pdf file

## CHAPTER 4 - INSTALLATION LOCATIONS

After running the RootOne installer with default folder paths, you will find the different plugin formats in the following locations:

### MacOS:

AAX - /Library/Application Support/Avid/Audio/Plug-Ins

VST - /Library/Audio/Plug-Ins/VST

VST3 - /Library/Audio/Plug-Ins/VST3

AU - /Library/Audio/Plug-Ins/Components

### Windows:

AAX - C:\Program Files\Common Files\Avid\Audio\Plug-Ins

VST - C:\Program Files\Steinberg\VstPlugins

VST3 - C:\Program Files\Common Files\VST3

\*VST PlugIn Technology by Steinberg Media Technologies

## CHAPTER 5 - CONTACT US

In case you have any questions, don't hesitate to contact us at:

[support@leapwingaudio.com](mailto:support@leapwingaudio.com)

[www.leapwingaudio.com](http://www.leapwingaudio.com)

