Wire Grind
Woctavia v1.0
User Manual

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1 Overview

Woctavia is an octave doubling fuzz effect. It has been designed to recreate the sound of an authentic Tycobrahe Octavia pedal.

Why octave doubling fuzz?
Octave doubling fuzz is unique among distortion effects. Due to the way the signal is modified, there is a frequency doubling effect. It's fame in the guitar world is most likely due to its use by Jimi Hendrix. The applications of octave doubling fuzz, however, reach far beyond the guitar world.

Octavia pedals exude a rich and very expressive sound. They are highly responsive to playing style, and they function as an extension of the instrument. Very few pedals accomplish this so well. The octavia pedals made by Tycobrahe have long been sought after by musicians, and they have been known to sell at auction for thousands of dollars.

Vintage model
Wire Grind has performed detailed analysis on an authentic Tycobrahe Octavia pedal. We have pinpointed precisely what gives it its unique sound qualities. Rather than a simple full-wave rectifier, the pedal transforms the signal in a dynamic and complex way. The effect is one that can't be recreated by a simple waveshaper. In our effect algorithm, we have had great success duplicating the characteristics of this classic analog pedal.

Enhanced model
In addition to the classic model, we have added a modified processing mode called "Warmth". This mode provides an enhancement of the original effect's tonal qualities. It essentially uses an idealized model, and thereby creates a softer, less buzzy sound.

2 List of Selected Features

- Classic vintage effects model
- Special enhanced effects model
- Alias suppression (oversampling)
- Mono, stereo, and surround sound processing

3 Specifications

- Supported Sample Rates: 44.1kHz, 48kHz, 88.2kHz, 96kHz, 176.4kHz, 192kHz, 352.8kHz, 384kHz. Woctavia will also work at any other reasonable sample rate, however the *Anti-Alias* feature will work only at the sample rates listed.
- Supported Channel Formats: Many channel formats are supported (mono, stereo, quadro, 5.1, 7.1,... 13.1, etc)[1].
- Operating System: Windows XP, Windows Vista, Windows 7 (OSx is yet to be supported)

- Plug-in Versions:

  VST2, 32-bit

  VST2, 64-bit

  VST3, 32-bitz

  VST3, 64-bit

- Internet: Access to the world wide web is required during installation.

- Supported Host Programs: We do not have many resources for testing specific hosts, although we test with multiple host programs. Try the demo versions to verify compatibility.

3.1 Difference between Demo Version and Full Version

There are currently four full versions of the Wire Grind Woctavia. There are also four demo versions. There are two differences between the demo versions the full versions: 1) The demo versions are unable to save settings and 2) The sound of a gentle train whistle is added to the output signal for 2 of every 10 seconds.

4 Installation

This program comes with a set up application. This application is able to install all four versions of the plugin.

5 Uninstall

This program is uninstalled by deleting the plugin files. These files contain the product name and end in either ".dll" or ".vst3."

6 Controls

Volume

Sets the output volume level. For any increase added to the *Boost* parameter, you may find it useful to decrease *Volume* by the same amount.

Boost

Increase *Boost* to overdrive the signal. Decrease *Boost* for a cleaner signal with less distortion. You may also find that *Boost* alters playing dynamics.

Like the real pedal, Woctavia is very sensitive to input level. *Boost* gives a fair amount of control over this. In some circumstances, however, you may find that adjusting the input signal level results in a slightly different sound. Such an adjustment is analogous to turning the volume knob on a guitar.

On/Off

This is a standard clickable bypass toggle switch. When the effect is active, the switch will look like a red LED.

Anti-Alias

Toggles the effect between standard mode and anti-aliasing mode. This feature is usually referred to as "oversampling." Enabling *Anti-Alias* will often improve sound quality. As a trade-off, it also tends to consume more CPU resources. Aliasing tends to be more pronounced with higher-pitched notes. Under some conditions, the benefits of *Anti-Alias* may be difficult to hear. When this feature is enabled, the button will have a light gray background.

Warmth

Toggles the effect between two octave fuzz modes. When *Warmth* is off, Woctavia functions as a model of a classic octavia effect. When *Warmth* is on, Woctavia runs a special algorithm that has enhanced tonal qualities. It produces a softer, warmer, less buzzy sound for both the clipped and unclipped signal. When this feature is enabled, the button will have a light gray background.

7 Footnotes

1. Channel format may be limited by either your host application or your computer hardware.