USER GUIDE

# Verge

Verge is a clipper and limiter with a spectrum analyzer built in, so you can see when added harmonics start to become audible.

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**Formats** AU · VST3 · AAX **Platform** macOS, Universal **Publisher** Shorthand Audio

# Overview

Verge has three main components: a clipper, a limiter, and an analyzer.

The clipper does the bulk of the work. It utilizes a clean, oversampled clip curve that you can drive as hard as sounds good. Following the clipper is a brickwall limiting stage that prevents the output from going into the red. The centerpiece of the UI is an analyzer which compares the clip harmonics to your dry signal and gives an indication of how transparent or overt the clipping will sound.

At this point you might be asking, “Why would I need an analyzer to show me when clipping sounds good if I can just listen?” And you're not entirely wrong. In most audio engineering scenarios, if it sounds good then it is good. But while our ears should do the bulk of the work, it's also true that “we all need to be meter-readers at some point,” as my old mentor used to say. The real expertise comes in knowing when to listen, and when to look.

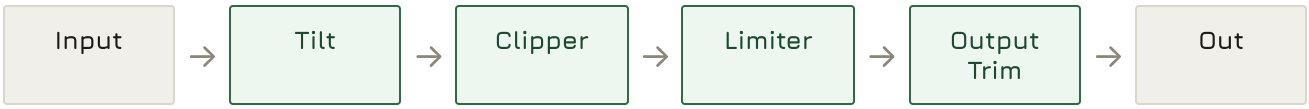
In the case of Verge, it is recommended to do both. Set the controls the way you always would, by listening. The analyzer is there as backup, for the stuff that's easy to miss. A fast transient, or a frequency that slips by after a few hours on the same section of a song. Think of it as a second pair of eyes on a decision your ears already made.

While Verge has a range of applications, it is primarily intended for mix and master bus processing. Enable the brickwall limiter and use Verge as a two-in-one clipper-limiter, or disable the limiter and place it right before your go-to limiting plugin.

Another question may come to mind: “Why should I use a clipper on my mix or master bus in the first place?” The simple answer is that you shouldn't. Not always, at least. The most common goal when clipping a track is loudness. At risk of relitigating the endless debate surrounding loudness, I feel obligated to mention that loudness is not always the goal. In those cases where loudness is, however, the goal, Verge is a useful tool for optimizing the balance between loudness and transparency.

The rest of this guide walks through the panel left to right, then covers the analyzer and where to go if something isn't working the way it should.

# Controls




## 01 — Tilt

Knob · bipolar

Range `−100% – +100%`
Default `0% (off)`

Tilt is a simple tone control that sits before the clipper. Turn it up to attenuate the low end while boosting the top end by a similar amount.

This balance is tailored to loudness perception, so tilting up tends to read as louder without needing to push any harder into the clip curve. Turn it down and you get the opposite: a warmer sound with heavier low end, but less headroom before clip artifacts become audible.

## 02 — Grit

Knob · character

Range `1 – 20`
Default `1 (rounded knee)`

Grit shapes the clip curve itself. The default value gives you a soft knee that's easy to push without it feeling harsh. Increase the value and the knee approaches a hard clipping curve, with more bite in the upper harmonics.

## 03 — In

Knob · trim

Range `−24dB – +24dB`
Default `0dB`

The In knob controls how hard you're pushing into the clipper. For the cleanest result, loop the loudest section of your song and increase the input trim until you see a healthy amount of green on the analyzer. See Audibility Check.

## 04 — Limiter

Switch, plus Release knob & Auto Release

Release `1 – 1000ms`
Default `Off · Manual`

A brickwall limiter.

### Release

Determines how long the limiter takes to let go once it's caught a peak, measured as time-to-recovered.

### Auto

Auto blends four things to decide how long to hold: how long the current peak lasted, how transient or dense the material sounds moment to moment, how busy the last few seconds have been, and whether the reduction it's currently applying is actually caused by something still coming up in the lookahead buffer rather than something that's already passed. In practice, a single stray kick hit lets go quickly, a wall of sustained loud material eases off more gradually, and a busy, dense passage holds a little longer than an isolated transient would. It's tuned to get out of the way as soon as it reasonably can without undoing the level control it just applied.

## 05 — Output

Knob · trim

Range `–12dB – 0dB`
Default `0dB`

A plain trim that sits after the limiter.

## 06 — Unity

Switch · loudness match

Default `off`

Unity automatically compensates output level as you increase input gain, so it's easier to hear when clip artifacts become audible.

## 07 — Delta

Switch · solo the difference

Default `off`

Delta swaps Verge's output for just the difference between the processed signal and a level-matched, unprocessed copy of it — in other words, only what the clipper actually added. It's the quickest way to hear exactly how your signal is being clipped.

## 08 — Oversampling

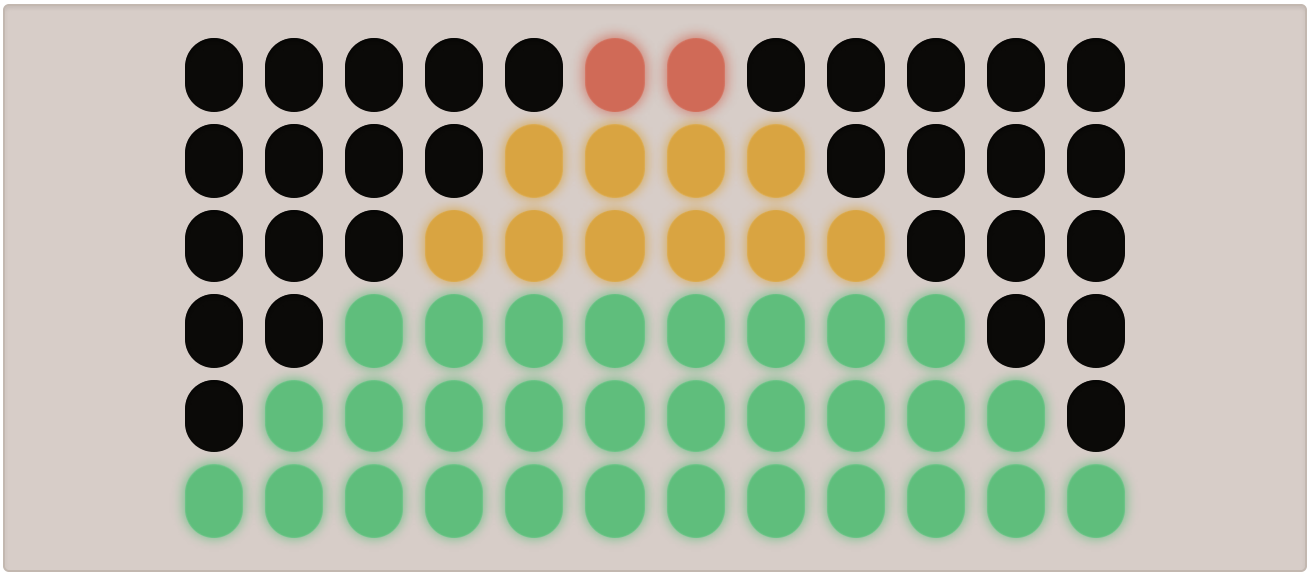
Selector · 4 positions

Options `Off / 2x / 4x / 8x`

Higher settings clip with less aliasing, so the top end stays cleaner at aggressive settings, but they cost more CPU and add some extra latency. True-peak safety in the limiter doesn't depend on this setting at all — it runs its own check regardless of the oversampling setting.

# Audibility Check

Verge's display includes twelve meters, each one covering a slice of the spectrum. The meters approximate the audibility of generated clip harmonics using Bark band analysis. Each band's harmonic energy is measured against how loud the dry signal already is nearby, and how sensitive your hearing naturally is at that frequency. Together, these provide an approximation of what a listener could realistically pick out against the mix.



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# Support

If something's not behaving the way this guide says it should — a crash, a setting that seems off, a question about your license — we want to hear about it.

Write to support@shorthandaudio.com and a person will get back to you, not a bot. You can manage activations and grab the installer again any time from shorthandaudio.com/account.

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