

SENTINEL



Sentinel User Manual

Vain Audio 2025

Sentinel

Sentinel is a banded distortion plugin designed for precise distortion of a frequency band. The frequency band cutoffs can optionally be set by incoming MIDI messages, allowing for tuned or musical distortions. After splitting, the two sequential distortion modules give you the option to subtly enhance your sound or destroy it altogether.

The top portion of Sentinel's UI contains the visualizer. It shows you a spectrum analyzer for the current input/output as well as the currently affected band. At the bottom left and right are the two distortion modules. Between them are global controls. You can find band adjustment, bypass, solo, mix, and MIDI tracking settings here.



Band Splitting

The first step in Sentinel's signal flow is splitting off the focused frequencies from the input signal. The transparent red section in the visualizer will be split off of the original sound and sent to the distortion modules. The bottom center section of the UI contains sliders relevant to the frequency splitter as well as the global state of the plugin.



- A. **Splitter Low Cut Steepness:** Set the steepness of the splitter's low cut.
- B. **Splitter High Cut Steepness:** Set the steepness of the splitter's high cut.
- C. **Enable MIDI Tracking:** Toggle on and off Sentinel's midi tracking
- D. **Center Midi Tracking:** Optionally center Sentinel's midi tracking around the frequency of the incoming MIDI note. By default, tracking begins at the target frequency and extends outward based on the Width slider.
- E. **Tracker Octave Shift:** Adjust the incoming MIDI note's octave.
- F. **Tracker Semitone Shift:** Adjust the incoming MIDI note's semitone
- G.
 - **Splitter Low Cut:** Adjust the splitter's manual low cut.
 - **Tracking Offset:** Adjust how far away from the target frequency of the MIDI note band splitting begins.
- H.
 - **Splitter High Cut:** Adjust the splitter's manual high cut.
 - **Tracking Width:** Adjust how wide the split frequency band is.
- I. **Pre Gain:** Adjust the gain of the dry input signal.

- J. **Global Mix:** Adjust how much distortion is applied to the input signal.
- K. **Post Gain:** Adjust the gain of the wet output signal.
- L. **Solo Toggle:** Solos the processed band.
- M. **Bypass Toggle:** Bypass the entire plugin.
- N. **Sentinel Logo:** Click this to open the information popup. UI scaling settings live here.

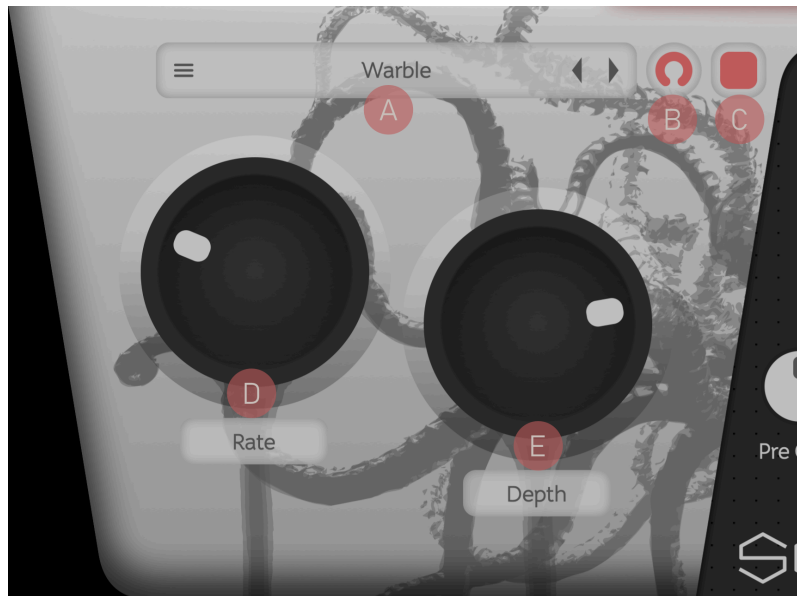
By default, band splitting in Sentinel is set with the Low and High sliders in the global controls section.

By routing MIDI messages in your DAW to be received by Sentinel and enabling MIDI tracking in Sentinel's UI you can set the band cutoffs based on incoming MIDI notes. When MIDI tracking mode is enabled extra controls are also enabled to adjust how the MIDI notes are interpreted and how the band cutoffs should be calculated and set.

MIDI tracking in Sentinel can be used to focus the distortion on a set of harmonics. This results in distortion that achieves the same effect regardless of the note being played.

Distortion Modules

Sentinel contains two sequential distortion modules on each half of the user interface. Audio is processed through these modules from left to right.



- A. **Distortion Type:** Click to open a selection popup or use the arrows to scroll through distortion algorithms.
- B. **Mix:** Adjust the dry wet mix of this distortion module.
- C. **Enable:** Toggle on and off this distortion module.
- D. **X Parameter:** The X Parameter for the selected distortion algorithm. Each distortion algorithm will label this slider differently.
- E. **Y Parameter:** The Y Parameter for the selected distortion algorithm. Each distortion algorithm will label this slider differently.

Sentinel's distortion algorithms are designed with exploration in mind. Each does a different thing. Each has different sonic goals. The labels under the two large sliders denote their function within the context of the selected distortion algorithm.

Acknowledgments



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