

Voice Leveler

User Manual

VST3 / AU · Mac / Windows

Overview

Voice Leveler is a one-knob dynamics plugin that automatically levels vocal material. It continuously reads the incoming signal, applies transparent gain correction to bring quiet passages up and loud passages down, then passes the result through a fixed-character compressor and a two-stage limiter to set a clean output ceiling. There are no thresholds or ratios to configure, simply raise the Level-fy knob until the signal feels even and controlled, then back it back down if it gets distorted.

Signal Chain Order

Audio passes through each stage in the following order:

- Input Gain
- [Oversample]
- Auto-Leveler
- Glue Compressor
- Limiter
- [Downsample]
- Output Gain

Note *The Auto-Leveler, Glue Compressor, and Limiter all run at the oversampled rate set in the header.*

Header

The header runs across the top of the plugin and holds global controls and the preset system.

Global Controls

Control	Range	Default	Notes
Power	On / Off	On	Bypasses the entire plugin with a smooth fade.
HQ (Oversampling)	Off, 2×, 4×, 8×, 16×	Off	Higher settings reduce aliasing from the processing chain at the cost of increased CPU use.
Window Size	50%–200%	100%	Scales the entire UI.

Preset A / B

Two preset slots (A and B) let you compare two sets of parameter values quickly. Clicking A or B applies that slot. Saving a new value overwrites the active slot.

Preset Browser

The preset browser lets you save and load named presets from disk. Presets are stored in your OS application data directory. Saving a preset captures the current state of all controls. There are no factory presets, all saved presets are user-created.

Controls

The main panel contains an input gain knob, level-fy knob, and an output gain knob on the right. Input and output meters flank the panel on either side.

Input and Output

Control	Range	Default	Notes
Input	-20 to +20 dB	0 dB	Gain applied before any other processing. Use to match levels when inserting mid-chain.
Output	-20 to +20 dB	0 dB	Final gain trim after the entire chain.

Level

Control	Range	Default	Notes
Level-fy	0–10	0	Drives the automatic leveler and output limiter simultaneously. Raise to even out dynamics and increase perceived loudness.

Note *Level-fy controls both the internal leveling intensity and the limiter ceiling in a single movement. You do not need to set a threshold or ratio.*

Metering

Input and output peak meters are displayed on the left and right sides of the plugin.

Processing Engine

This section documents the internal DSP stages for users who want to understand what Voice Leveler is doing to the signal. All three stages run at the oversampled rate.

Auto-Leveler

An envelope follower continuously measures the RMS level of the incoming signal and applies gain to keep the output near -18 dBFS. On quiet passages the gain rises smoothly; on loud transients it reduces quickly. The computed gain is further smoothed to prevent audible stepping.

Control	Range	Default	Notes
Attack	10 ms	—	How quickly the leveler responds to rising signal levels.
Release	1,000 ms	—	How slowly the leveler recovers after a loud event passes.
Target	-18 dBFS	—	The nominal output level the auto-leveler aims for.

Note *The Auto-Leveler is always active when the plugin is on.*

Glue Compressor

A fixed-character compressor follows the auto-leveler to add density and cohesion to the leveled signal. Its parameters are internal and not user-adjustable.

Note *Internal settings: 4:1 ratio, 10 dB soft knee, 5 ms attack, auto-release (80–400 ms depending on gain reduction), side-chain HPF at 90 Hz, threshold at -18 dBFS.*

Limiter

A two-stage look-ahead limiter followed by a hard clip at the ceiling set by the Level-fy knob. As Level increases, an equal amount of drive is added before the limiter so perceived loudness scales proportionally.

Note *Stage 1: 8:1 ratio, 1 ms attack, 50 ms release. Stage 2: 2:1 ratio, 30 ms attack, 150 ms release, threshold 6 dB below Stage 1. A hard clip at the ceiling ensures absolute output cannot exceed the set level.*

Tips

Set Level, then trim Output

Raise Level until the vocal feels even and consistent in the mix. Then use the Output knob to set the final loudness.

Gain staging into the plugin

Voice Leveler is calibrated to work well with signals arriving near -18 dBFS. If your source is significantly hotter or quieter, use the Input control to bring it into range before raising Level. A well-staged input gives the auto-leveler the most headroom to work with.

Oversampling

The entire processing chain runs at the oversampled rate. If you notice harshness or aliasing artifacts at high Level settings, engaging $2\times$ or $4\times$ oversampling usually resolves it without significant CPU impact. $8\times$ and $16\times$ are available for the most demanding sessions.

Use on voice-over and podcasts

Voice Leveler is equally effective on spoken word. Set a moderate Level value and use the Output knob to hit your target loudness for the delivery format. The slow release of the auto-leveler is well-suited to speech, which has longer quiet gaps than sung vocals.