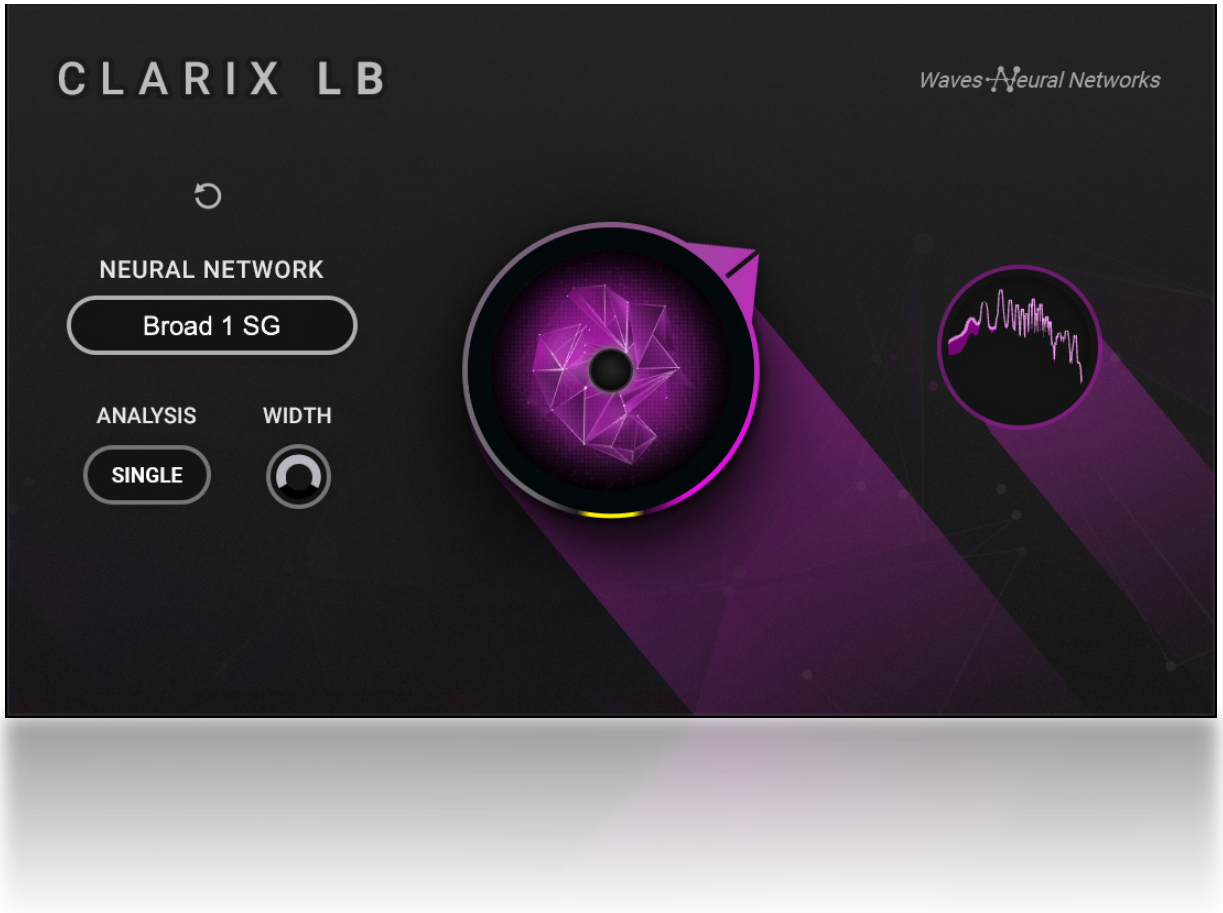
Waves Neural Networks

Clarix LB

AI-Powered Real-Time Noise Reduction
for Voice and Vocals in Live Broadcast

User Guide



Introduction

Thank you for choosing Waves! To get the most out of your new Waves plugin, please take a moment to read this user guide. Installing software and managing your licenses require a free Waves account. Sign up at www.waves.com. With a Waves account you can keep track of your products, renew your Waves Update Plan, participate in bonus programs, and stay up to date with other important information.

We suggest that you become familiar with the Waves Support pages, www.waves.com/support, where you will find technical articles about installation, troubleshooting, specifications, contact information, and more.

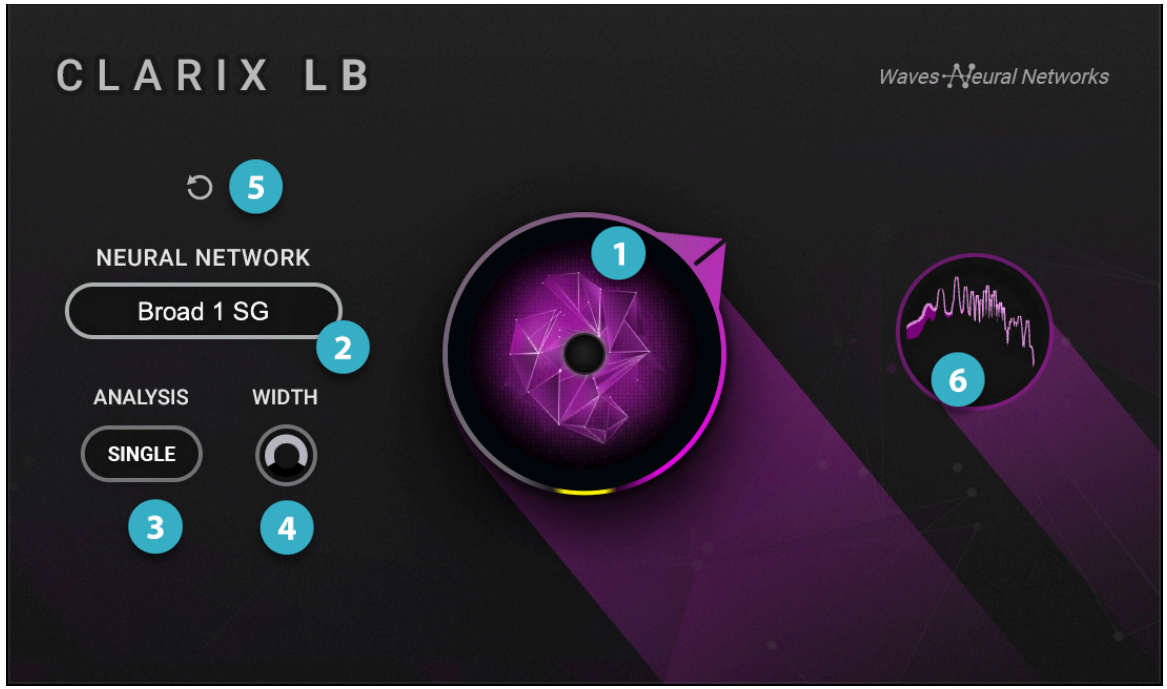
Clarix LB

Clarix LB is an AI-powered noise reduction plugin for voice and vocals in live broadcast scenarios. It is compatible with the Waves SoundGrid real-time processing platform, making it well suited for real-time live broadcast workflows.

Clarix LB can run on any major mixing console, via the Waves SuperRack SoundGrid plugin rack or on the eMotion LV1 mixer (including the LV1 Classic mixing console). It is also compatible with SuperRack Performer and SuperRack LiveBox.

Clarix LB's AI noise reduction is powered by the same award-winning Waves Neural Networks engine that power Waves' latest generation of noise removal plugins for studio and live applications.

Interface



1. **Main Control Knob** controls overall processing strength. Turn clockwise to reduce the ambience from the voice.
2. **Neural Network** displays the name of the SoundGrid-optimized neural network used for processing.
3. **Analysis** sets how the neural network analyzes the input signal.
4. **Width** adjusts the size of the stereo image.
5. **Reset** clears the neural network history cache.
6. **Waveform FFT Display** shows input signal and noise reduction.

Quick Start

1. Begin with the **Main Control Knob** at its maximum position (the value box will read 100). This removes all the noise. If you're happy, then you're done. If you want to reintroduce some noise or bring back some "edges" of the voice, just turn the knob counterclockwise until you get the sound you want.
2. **Neural Network** displays the neural network in use, optimized for SoundGrid.
3. **Analysis** (stereo component only) controls how a stereo signal is analyzed before neural network processing.
   - **Single** sums the left and right input channels before analysis. If the ambience and voice are similar on both channels, you don't need to analyze or process the input signal twice. In Single mode, both channels are processed using the same analysis data. Single mode consumes considerably less CPU than Double.
   - **Double** analyses the left and right channels independently and processes them separately. Use this mode when the left and right channels are significantly different (i.e., very different ambience or voice). This provides more precise processing for each channel, but it requires substantially more CPU. You may need to use the Width control to further adjust the stereo image.

     Note that in some circumstances, Single will not yield the same degree of voice/ambience separation as Double. When in doubt, experiment with both, since this is very content-dependent.

4. **Width** (stereo component only) controls the size of the stereo image.
   Range: 100 (original stereo width) to 0 (mono)
5. Click the **Reset** button to clear the neural network history cache. Certain events, such as an abrupt, substantial change in the noise profile, a quick change of speaker, or a sudden loud noise, can cause the network to lose focus or compromise quality. Resetting the network restores the neural network without losing settings. Clarix LB automatically resets each time playback stops. It does not reset when the DAW is looping a segment.

6 Refer to the **Waveform FFT Display** to see how much ambience you are separating from the voice.

The white line represents the input signal. Reduction is shown in pink.

When you're happy with your results, give your ears a break and then listen again. A little perspective never hurts.

WaveSystem Toolbar

Use the WaveSystem Toolbar at the top of the plugin to save and load presets, compare settings, undo and redo steps, and resize the plugin. To learn more, click the icon at the upper-right corner of the window and open the WaveSystem Guide.

Supported Sample Rates and Latency

- 44.1 kHz or 48 kHz reported latency is 2191 samples (49.7 ms or 45.7 ms respectively)
- 88.2 kHz or 96 kHz reported latency is 4384 samples (49.7 ms or 45.7 ms respectively)

Note for SuperRack SoundGrid and LV1 users:

- Use the Titan SoundGrid Server. This is the only server that supports Clarix LB.
- Assign all instances of Clarix LB to the same Titan server.
- Ensure that at least 50% of Titan's processing power is available for Clarix LB at all times.