

# Wavesurfer User Manual



## Introduction

Welcome to **Wavesurfer**! This advanced multi-effects processor is built to provide you with an exceptional range of sound-shaping possibilities. Wavesurfer combines traditional effects with cutting-edge neural and AI technologies to deliver results that are as versatile as they are innovative. With swappable effect units, customizable modulation options, and intelligent sound classification, Wavesurfer adapts to your creative needs, helping you craft sounds with character, depth, and clarity.

Whether you're producing lofi beats, ambient soundscapes, or energetic electronic music, Wavesurfer empowers you to shape your sound to match your vision. This guide will walk you through each control to help you make the most of this powerful tool.

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## Master Section



The **Master Section** provides global controls over your signal, offering essential tools for fine-tuning your sound output.

1. **Combo Filter (High Pass/Low Pass)**  
Adjusts the global high-pass or low-pass filter for your sound, letting you cut unwanted frequencies and maintain clarity or warmth.
2. **Tonal EQ (Brighten/Darken)**  
A master EQ control that allows you to brighten or darken the overall tonal character of the signal, giving you broad control over the mood of your sound.
3. **Stereo Imager (Closing/Opening)**  
Control the stereo field by narrowing or widening the sound's spread, allowing for a focused or immersive stereo experience.
4. **Stereo Mod (WOW/Chorus)**  
Adds subtle pitch modulation for a vintage “wow” effect or a more pronounced chorus for character. This feature enhances the stereo depth and movement within your sound.
5. **Input Gain**  
Controls the level of the incoming signal before it hits the effect chain, essential for balancing levels as you add effects.
6. **Main Dry/Wet**  
Adjusts the balance between the unprocessed (dry) signal and the fully processed (wet) signal, so you can blend in the exact amount of effect you desire.
7. **Output Gain**  
Controls the final level of your signal after processing, ensuring your sound is precisely leveled as it leaves Wavesurfer.

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## Footer Section



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At the base of the Wavesurfer UI, you'll find essential interface controls for accessibility and basic functionality.

1. **Main Bypass**

Allows you to bypass all Wavesurfer effects and hear your unprocessed signal. This is useful for quick A/B comparisons.

2. **UI Scale**

Scales the UI up or down, making the interface more accessible and easier to work with, especially for those who prefer a larger display.

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## Swappable Effect Units

The heart of Wavesurfer lies in its modular, swappable effect units, each crafted to add unique dimensions to your sound. The units are draggable, so you can rearrange the order to discover new and interesting sound combinations.

### Delay



A tempo-synced delay with various filter characteristics.

1. **Bypass:** Toggle on/off.
2. **Feedback:** Adjusts the number of delay repeats.
3. **Tempo (Synced to Host):** Syncs delay time to your DAW tempo.
4. **Amount (Dry/Wet):** Sets the balance between delayed and dry signals.
5. **Preset Selector:** Choose from resonant-filter characteristics for different tonal delay effects.
6. **Drag/Drop Bar:** Rearrange the order of this effect in the chain.

## Amp Model



A neural-based saturation/overdrive effect that emulates analog warmth with various saturation models.

1. **Bypass:** Toggle on/off.
2. **Combo Filter (Pre-saturation):** High-pass or low-pass filter to shape the saturation's impact.
3. **Amount (Dry/Wet):** Controls the saturation intensity.
4. **Preset Selector:** Choose from custom saturation models.
5. **Drag/Drop Bar:** Rearrange the effect order.

## Autopan



Creates movement in the stereo field, synced to the tempo of the DAW.

1. **Bypass:** Toggle on/off.
2. **Phase:** Adjusts the stereo phase offset for panning.
3. **Tempo (Synced to Host):** Syncs the effect to your DAW tempo.
4. **Autopan:** Controls how wide the panning movement is.
5. **Drag/Drop Bar:** Rearrange the effect order.

## Phaser



Classic modulation effect adding movement and texture to your sound.

1. **Bypass:** Toggle on/off.
2. **Rate:** Adjusts the phasing speed.
3. **Depth:** Sets the phasing intensity.
4. **Amount (Dry/Wet):** Controls the balance between phased and dry signals.
5. **Drag/Drop Bar:** Rearrange the effect order.

## Glue



A compressor for tightening up the sound dynamics.

1. **Bypass:** Toggle on/off.
2. **Type:** Selects from three distinct compression characteristics, allowing you to choose the best fit for your track.
3. **Amount:** Controls the intensity of compression applied.
4. **Drag/Drop Bar:** Rearrange the effect order.

## Neural Reverb



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An AI-driven reverb that analyzes incoming audio and tailors reverb settings accordingly.

1. **Bypass:** Toggle on/off.
  2. **Learn:** Activates the neural network's analysis of the input sound for 3-5 seconds, generating an ideal reverb setting.
  3. **X-Y Matrix:** A graphical interface for setting dry/wet and reverb length for further customization.
  4. **Drag/Drop Bar:** Rearrange the effect order.
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## Filter Pulse



The Filter Pulse module is a tempo-based filter modulation effect that can add rhythmic interest or smooth LFO movement to your sound.

1. **Bypass:** Toggle on/off.
2. **16-Step Sequencer (Tempo-synced to Host):** Create rhythmic filter modulations by selecting presets or drawing your own steps.
3. **Tempo (6 steps):** Set the tempo multiplier, synced to your host DAW. Its values are: 1/2, 1/4, 1/8, 2x, 4x, 8x.
4. **Depth:** Adjusts how much modulation is applied to the filter.
5. **Cutoff:** Sets the filter's cutoff frequency. This will be the initial frequency of the modulation.
6. **Smoothen:** Controls the modulation's "smoothness." At maximum, it transforms the sequence into a smooth, continuous LFO.
7. **Pre/Post:** Position this effect at the start or end of the effect chain for additional flexibility, ensuring it acts before the Master section.

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## Outro

Thank you for choosing **Wavesurfer** as part of your creative toolkit! We've put extensive time and effort into combining advanced neural technology with accessible design to create a truly unique and versatile sound-shaping plugin. We hope you enjoy exploring the wide range of possibilities and discovering new ways to bring life and depth to your music.

We're here to support you on your sound journey, so please feel free to reach out with any questions or feedback. Dive into the waves of sound with **Wavesurfer**, and let your creativity flow!