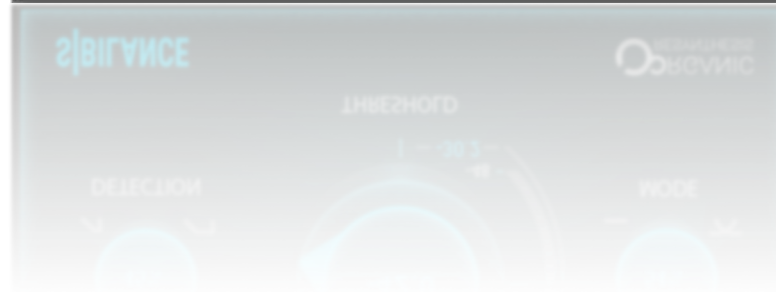# Waves Sibilance

User Guide

# Introduction

**Waves Sibilance** is a sophisticated, easy-to-use DeEsser. A DeEsser is an audio processor designed to attenuate high-frequency sounds generated when certain consonants are voiced. Some vocal sounds create high-energy peaks at certain frequencies; this can result in unwanted distortion or extreme presence in the higher frequencies. The most common sources of sibilance are the S and Sh sounds, which are created when the tongue directs a stream of air toward the teeth. This results in a hissing sound with high energy content. These front-of-mouth vocalizations are also closer to the microphone membrane than are other vocal sounds— this may exaggerate sibilant sounds. Waves Sibilance is very effective in reducing these sounds to a more natural level, eliminating distortion and high-frequency peaks.

Sibilance uses a new Waves technology—Organic ReSynthesis—that breaks sound into basic elements (e.g., pitch, formant, amplitude, carrier, etc.) before processing takes place. When one of these elements is manipulated, the others remain unchanged. These are used to re-synthesize the chosen element. Waves Sibilance uses the Formant Weight element for detection and manipulation. Organic ReSynthesis allows precise identification of unwanted S and Sh sounds, resulting in smooth, glitch-free, and effective DeEssing. Waves Sibilance reduces unwanted sounds flawlessly, while maintaining the timbre, duration, and natural resonance of the original sound.

Important: For superior results we recommend using Sibilance on single instruments or voices.

# Quick Start

The following steps will get you started and familiarize you with all of Sibilant's controls. To learn more, go to the controls section of this user guide.

1. The **Detection Width** control is located on the left side of the interface. Use this to identify and focus on unwanted S or Sh sounds—lower values detect narrower frequency ranges for detection and higher values result in a wider detection range. A narrow range will usually work well for S sounds, while Sh sounds often require a wider detection range to include a greater frequency span. If too short, the sibilant may not be detected. However, if Detection Width is set too wide, sounds other than sibilants may be detected. Detected sibilant sounds are marked in yellow on the Graph.

2. Click the **Monitor** toggle to audition the detected sounds that will be removed based on current detection settings. This provides an accurate preview of what you're going to remove.

3. Adjust the **Threshold** control to set the level at which sibilant processing begins. Threshold is displayed on the graph with two green lines.

4. Use the **Range** control to determine the maximum amount of Gain reduction. Actual gain reduction is displayed by a yellow line on Range scale.

5. Use the **Mode** knob to control how gain reduction will be carried out on the detected sibilant sounds. When Mode is set to its lowest value, attenuation will affect the full frequency range of the detected sound. When Mode is at its highest value, attenuation will focus on frequencies above 4 kHz. Use intermediate values to transition between the two modes. Low settings will usually work better for Sh sounds, while higher values are beneficial for attenuation of S sounds.

# Components and Interface

There are four Sibilance components. Two components are intended primarily for studio use:

- Sibilance Mono
- Sibilance Stereo

## Sibilance Component (Mono & Stereo)



Latency for these components is determined by the sample rate and Lookahead setting.

Lookahead On:

44.1kHz / 48kHz (529 samples)

88.2kHz / 96kHz (1152 samples)

Lookahead Off:

44.1kHz / 48kHz (0 samples)

88.2kHz / 96kHz (0 samples)

## Sibilance-Live Component (Mono & Stereo)

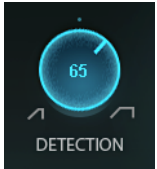These components have no latency and are ideally suited for live settings.

- Sibilance-Live Mono
- Sibilance-Live Stereo

The Lookahead feature is not available in Live components.

# Controls and Indicators

## Detection Width

 Use this control to focus on unwanted S or Sh sounds. Increasing the Detection Width value increases the frequency range of the detection. A narrow range will usually work well for S sounds. For Sh sounds, use a wider detection range to include a wider frequency span. The detected sounds are marked in yellow on the Graph waveform.

Range:  Narrow (0) –  Wide (100)
Default: 50%
Reset: 50%

## Lookahead (Not available in Sibilance-Live component)
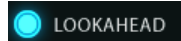


Lookahead improves Sibilance detection. It adds 12 ms of latency to the process. For Live applications, use the Sibilance-Live component to avoid dynamic latency changes. The Live components do not use the Lookahead feature.

Range: On/Off
Default: Off
Reset: Off

## Monitor

Click the Monitor toggle to audition detected sounds only.

Range: On/Off

On: only sibilant sounds are auditioned

Off: entire processed signal is auditioned

Default: Off

Reset: Off

## Threshold

Threshold sets where sibilance processing will begin. Adjust the Threshold level to include or exclude unwanted sounds in the detection process. Threshold is displayed on the Graph with two green Threshold lines.

Range: -80 dB to 0 dB
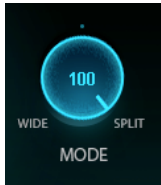
Default: -12.5 dB

Reset: 0 dB

## Range

 The Range control determines the maximum attenuation of detected sounds. Attenuation amount is displayed on Graph with the yellow Detection line.

Range: 0 dB to -48 dB
Default: -14 dB
Reset: 0 dB

## Mode

 The Mode control allows you to mix between two compression modes: Wide and Split.

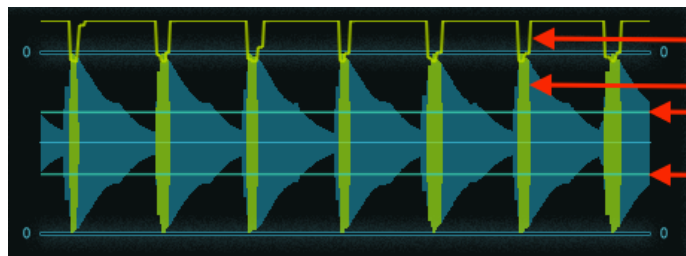Wide Mode (0): entire frequency range of detected sounds will be attenuated
Split Mode (100): only frequencies above 4 kHz will be attenuated

Range:  0 (Wide) to 100 (Split)
Default: 50
Reset: 50

## Graph



Attenuation Range
Detected Sounds
Threshold