

## Voxengo Beeper User Guide



Version 2.12

<https://www.voxengo.com/product/beeper/>

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## Introduction

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Beeper is an auxiliary audio processing plug-in which you can use to insert short beep, noise burst, or silence signals to any sound material. This plug-in may help you protect your work from an unauthorized use. It is safe to apply this plug-in to any mission-critical material because the plug-in does not perform any processing over the audio between the inserted signals.

You can specify signal's duration, beep frequency, signal's loudness, period between signals, and the amount of random variation of all parameters.

## Features

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- Beep, noise, or silence insertion
- Parameter randomization
- Stereo and multi-channel processing
- Preset manager
- Undo/redo history
- A/B comparisons
- Contextual hint messages
- All sample rates support
- Zero processing latency

## Compatibility

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This audio plug-in can be loaded into any audio host application that conforms to the AAX, AudioUnit, VST, or VST3 plug-in specification.

This plug-in is compatible with Windows (32- and 64-bit Windows XP, Vista, 7, 8, 10 and later versions, if not announced otherwise) and macOS (10.11 and later versions, if not announced otherwise, 64-bit Intel and Apple Silicon processor-based) computers (2.5 GHz dual-core or faster processor with at least 4 GB of system RAM required). A separate binary distribution file is available for each target computer platform and audio plug-in specification.

## User Interface Elements

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**Note:** All Voxengo plug-ins feature a highly consistent user interface. Most interface elements (buttons, labels) located at the top of the user interface are the same in all Voxengo plug-ins. For an in-depth description of these and other standard features, and user interface elements, please refer to the “Voxengo Primary User Guide”.

### Parameters

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This group of knobs affects plug-in’s performance.

The “Signal” selector specifies which signal type should be produced by the plug-in. The “Beep” option produces beeps; the “Noise” option produces filtered noise burst; the “Mute” option reduces volume of the sound material instead of inserting a signal. Note that noise bursts are technically harder to remove from the sound material without leaving sonic artifacts.

The “Period” parameter adjusts the period (in seconds) between signals.

The “Duration” parameter specifies the duration (in seconds) of a signal.

The “Freq” parameter adjusts the frequency (in Hertz) of a beep signal or filter’s corner frequency if noise signal is used.

The “Gain” parameter specifies the loudness of a beep or noise signal (in decibels), or amount of gain reduction if the “Mute” signal is used. Note that the sound material’s loudness will be decreased proportionally so that output signal level never exceeds the original signal’s peak level.

The “Variation” parameter specifies random variation of all beep parameters (percent). Variation of beeping parameters produces randomization that makes any automated removal process of the inserted beeps harder to achieve its goal.

## Credits

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DSP algorithms, internal signal routing code, user interface layout by Aleksey Vaneev.

Graphics user interface code by Vladimir Stolytko. Graphics elements by Vladimir Stolytko and Scott Kane.

This plug-in is implemented in multi-platform C++ code form and uses “zlib” compression library (written by Jean-loup Gailly and Mark Adler), “LZ4” compression library by Yann Collet, VST plug-in technology by Steinberg, AudioUnit plug-in SDK by Apple, Inc., AAX plug-in SDK by Avid Technology, Inc., Intel IPP and run-time library by Intel Corporation (used under the corresponding licenses granted by these parties).

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