# ODIOSKOP – User Manual

## Introduction

ODIOSKOP is a floating oscilloscope-style audio visualization device for Ableton Live, designed to provide real-time waveform analysis for any track. Developed by Raphaël SAUER aka I-Mable, this Max for Live device offers a clear, intuitive, and customizable display of audio signals to assist in sound design, mixing, and monitoring.

## Features

### 1. Advanced Audio Visualization

- Real-time waveform display in a floating window, emulating an oscilloscope.
- Continuous dB level monitoring.
- Clipping detection with adjustable sensitivity for spotting distortions.

### 2. Track and Channel Control

- Drop-down menu to select the track to be analyzed.
- Choose between Pre-FX, Post-FX, or Post-Mixer signals for flexible audio analysis.

### 3. Track Status Indicator

- A dedicated window displays the current status of the selected track:
  - Unmuted
  - Muted
  - Soloed

### 4. Customizable Settings

- Decay: Adjusts display persistence for a smooth or instant response.
- Width: Modifies waveform thickness to match visual preferences.
- Samples: Controls display density for zooming in on details or getting an overall view.
- Offset: Adjusts waveform positioning for better visual alignment.
- Grid: Enables a grid overlay for traditional oscilloscope-style visualization.
- Mono / Dual Mode:
  - Mono: Displays the sum of left and right channels.
  - Dual: Shows both channels separately for detailed stereo analysis.
- Panel Toggle: Hides the settings panel for a cleaner interface.
- Clipping Sensitivity (Red Point Mode):
  - Increases the clipping indicator's sensitivity.
  - Turns the waveform and audio meters red when clipping is detected.
  - Helps match clipping indicators to those on your soundcard or mixer.

# Practical Use Cases

## 1. Real-Time Visualization for Synths & Instruments

- Ideal for hardware and virtual instruments without built-in displays.
- Provides a real-time view of the generated waveform.

## 2. Precise Audio Level Adjustment

- Allows checking and adjusting input levels of instruments connected to your soundcard.

## 3. Distortion Detection & Correction

- Clip Alert instantly identifies clipping signals.
- Adjust track volumes or effects to prevent distortion.

## 4. Track Status Monitoring

- Instantly view whether a track is muted, unmuted, or soloed.

## 5. Sound Design & Detailed Audio Analysis

- Observe how distortion or effects impact an audio signal in real time.
- Perfect for sound designers crafting unique textures.

# Why Choose ODIOSKOP?

Designed for musicians, producers, and sound engineers, ODIOSKOP provides an intuitive and aesthetic oscilloscope experience inside Ableton Live, ensuring clear visual feedback for your audio signals.

# Limitations

- Supports up to 8 instances simultaneously, but performance depends on your computer's power and Ableton Live's graphical limitations.
- Best used on a second monitor where Ableton Live is not displayed.

# System Requirements

- Ableton Live 12
- Max for Live 8.6 or higher
- Compatible with Windows and macOS

# Installation & Setup

1. Ensure that Ableton Live and Max for Live are installed.
2. Drag ODIOSKOP.amxd onto an Audio or MIDI track in Ableton Live.
3. Open the floating oscilloscope window to start analyzing audio.

# How to Use ODIOSKOP

## Selecting a Track for Analysis

1. Use the drop-down menu to select the track.
2. Choose whether to analyze Pre-FX, Post-FX, or Post-Mixer signals.

## Adjusting Visualization Parameters

- Modify Decay, Width, Samples, Offset, and Grid settings to tailor the display.

## Using Mono/Dual Mode

- Toggle between Mono (sum of L/R channels) or Dual (separate L/R channels) for stereo analysis.

## Clip Alert & Red Point Mode

- Enable Red Point Mode to match the clipping indicator to your mixer or soundcard settings.
- The waveform and meters turn red when clipping is detected.

# Troubleshooting & FAQ

## 1. The waveform display is not updating.

- Ensure that ODIOSKOP is placed on an active track.
- Restart Ableton Live and reload the device.

## 2. The device is not detecting audio from the selected track.

- Check that the correct Pre-FX, Post-FX, or Post-Mixer setting is selected.
- Verify that the track is not muted.

## 3. The waveform display is lagging.

- Reduce the number of active ODIOSKOP instances.
- Lower the Samples value to improve performance.

## 4. How can I reset the settings?

- Reload ODIOSKOP from the Max for Live browser to restore default settings.

## Legal Disclaimer

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## Conclusion

ODIOSKOP is a powerful and user-friendly oscilloscope for Ableton Live, providing real-time audio visualization with flexible track and channel selection. Whether you're a sound designer, mixing engineer, or electronic musician, this tool ensures precise and intuitive audio monitoring.