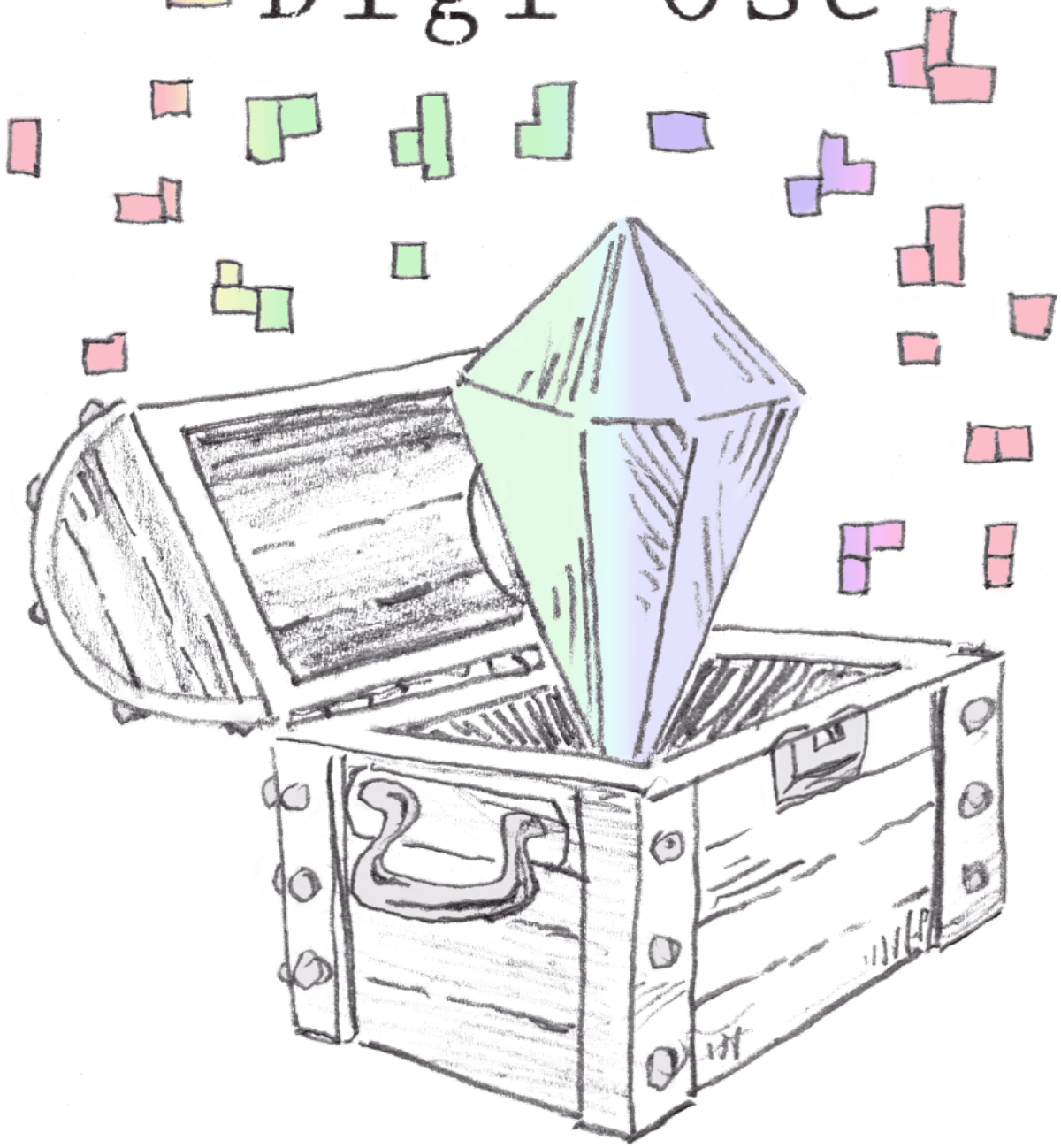
# Digi-Osc



Quick Guide

# Thank you for purchasing Digi-Osc!

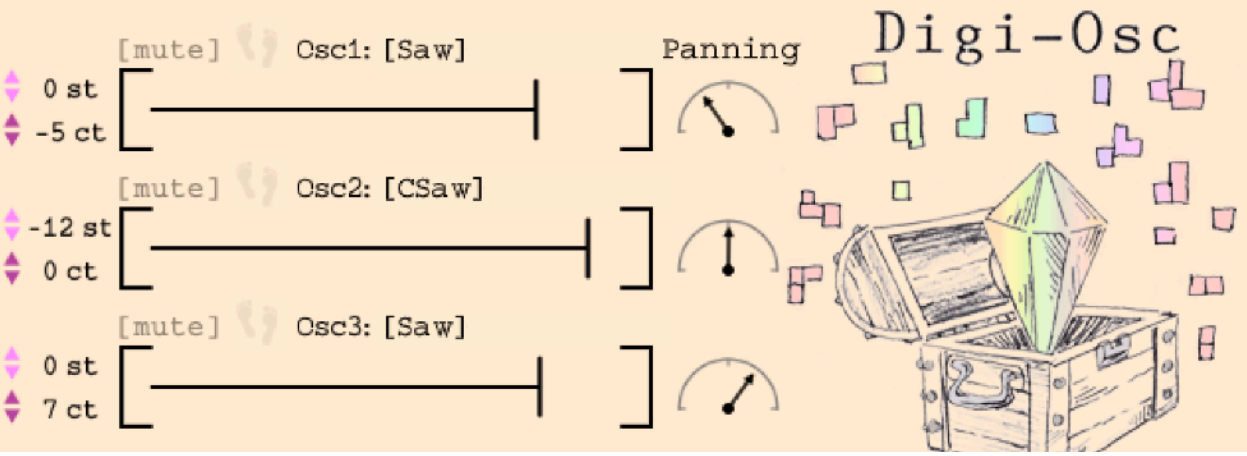
We are Clay and Kelsy Instruments, a boutique music software company founded in 2021, based in Los Angeles. As musicians, we strive to make instruments that can inspire and collaborate with any music maker - instruments that can spark creativity by giving users a new and understandable way to experience synthesis. We consciously make each instrument affordable, and prioritize sonic quality, player ingenuity, and inclusivity. Our instruments are always made with love and are designed for **everyone.**

Digi-Osc was built with the samples of raw oscillators from three different digital outboard synthesizers and euro-rack modules. With 22 digital wave shapes, 30 custom convolution responses, and over 80 presets, the Digi-Osc is a unique digital synthesizer with the ability to explore new sonic worlds.

Digi-Osc is a part of the Osc-Collection. All the Osc Instruments function fundamentally the same. What sets them apart is the different Oscillator selections and filter types. You can find an in-depth tutorial video of how the Osc instruments work here.

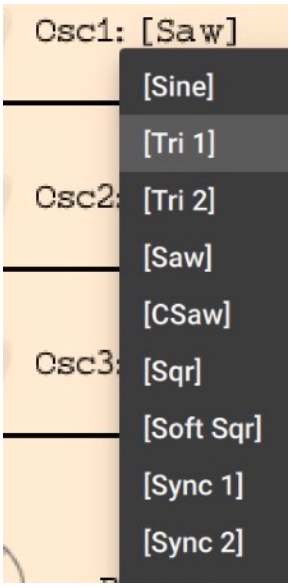
Clay and Kelsy

## Osc Tuning, Volume, and Panning



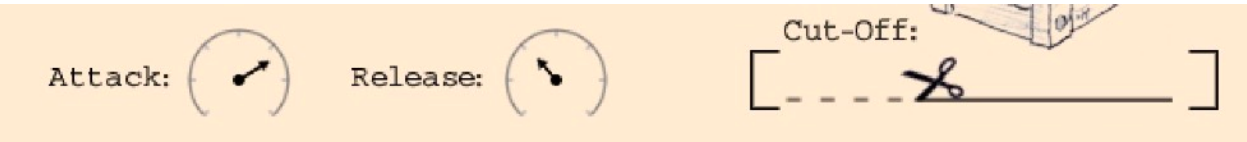

***Digi-Osc*** can load up to three oscillators to build your sound source. Here, you have control to pick and choose between 22 different wave shapes. Each Osc# has its own pitch controls (Semitones & Cents) and individual panning.

***Tip:*** *Try dragging the cents (ct) up or down a small amount to give a natural chorus effect.*




To change each Osc# wave shape, click the oscillator name between the [brackets] to open the wave shape selection menu.

## Attack, Release, and Cut-Off

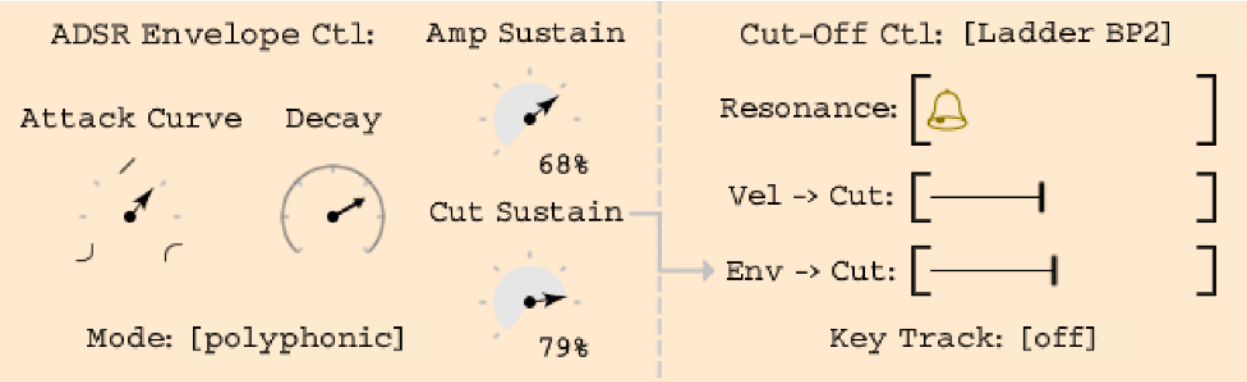



The ***Attack***, ***Release*** and ***Cut-Off*** are always visible on the main page for easy access while designing and performing your sound.

## Navigation Tabs


Use these tabs to navigate through all the different sound design possibilities within ***Digi-Osc.***

# Envelope and Cut-Off Controls

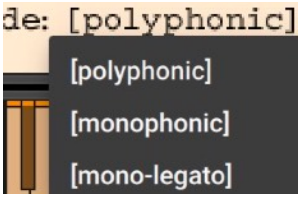


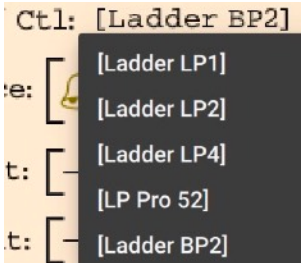

Unlike most synthesizers that have two separate ADSR envelopes, the ***Digi-Osc*** shares the Attack, Decay, and Release between the Amplifier and Cut-Off Filter, with the exception of the Sustain. This makes performing and editing easier, while still providing the shaping capabilities of traditional hardware synthesizers.

***Tip:*** *Env -> Cut must be engaged to hear the effects of the Cut Sustain.*

Attack Curve: Change the shape of the attack from a smooth exponential fade in to a quick logarithmic rise (if attack is set to 0 the curve will have no effect).

Click the Mode type between the [brackets] to choose between Monophonic and Polyphonic voice modes.



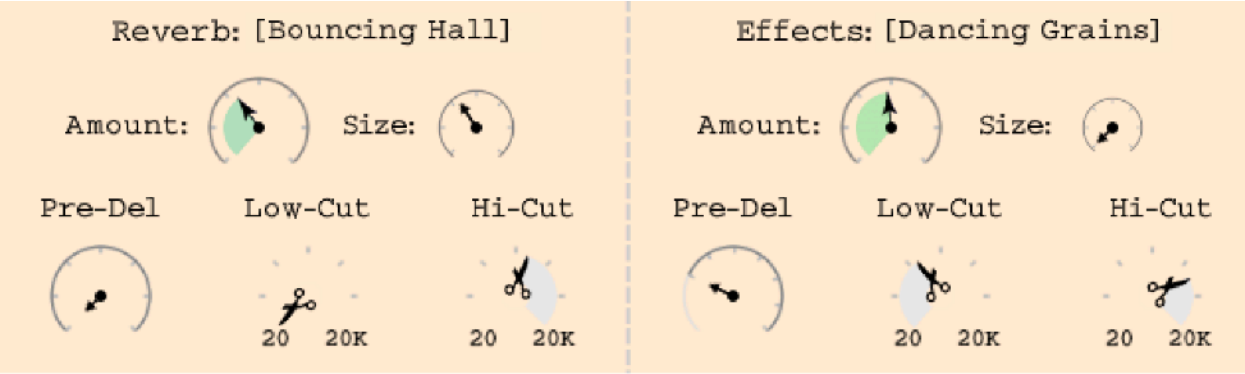

Click the Filter name between the [brackets] to choose one of the five filter types.

Vel -> Cut: Adjusting the amount the velocity will increase the Cut-Off frequency.

Click the Key Tracking type between the [brackets] to select between full, half, or no key tracking.


***Tip:*** *Key Tracking is setting the range of how much the filter opens depending on how high you play on the keyboard.*

# Convolution Reverb and Effects




Convolution is a very powerful type of cross-synthesis that has allowed us to share some of our favorite hardware Reverbs and Effects in an easy-to-use fashion. On this tab we've carefully curated over 30 Convolution types.

***Reverb*** will give you a classic selection of halls, rooms and digital spaces. The ***Effects*** side will offer more experimental delays and ghostly trails to add to your sounds.

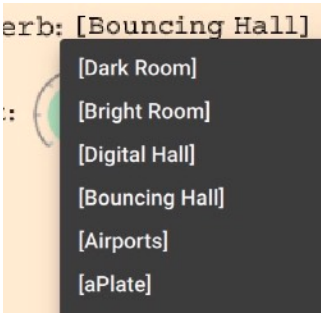
Amount: Control how much the dry signal is sent to the Reverb/Effect.

Size: Control the Size/Speed of the convolution type. (50% to 200%)

Pre-Delay: Controls how long it will take to hear the onset of the Reverb/Effect after the dry signal is heard.

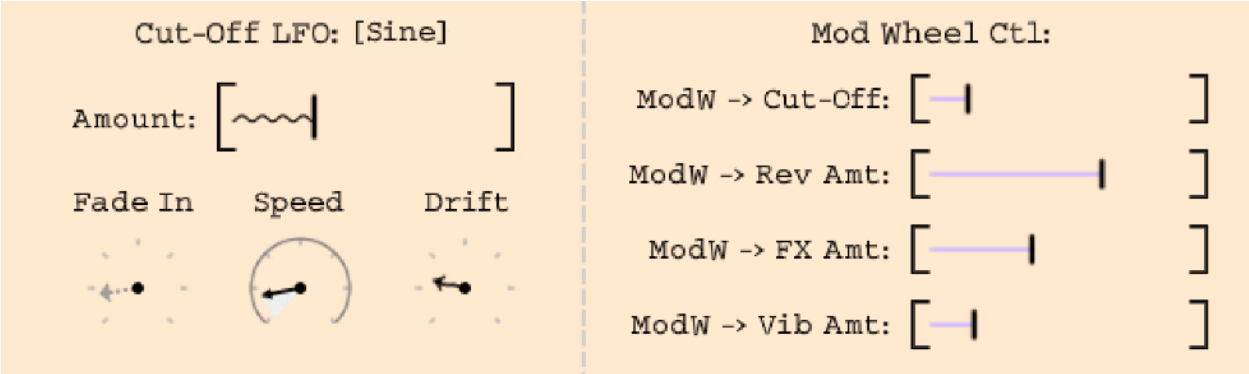
Low-Cut/Hi-Cut: Cut out the Low or High frequencies of the Reverb/Effects to shape their response.

Click the Reverb/Effects name between the [brackets] to change the loaded convolution type.




***Warning:*** *Changing the Size, Pre Delay, or Low-Cut/Hi-Cut while playing will recalculate the Reverb/Effects. This will* ***stop*** *any audio you have currently playing through them.*

# Cut-Off LFO and Mod Wheel Controls




**Cut-Off LFO:** is a dedicated LFO to control the Cut-Off frequency.

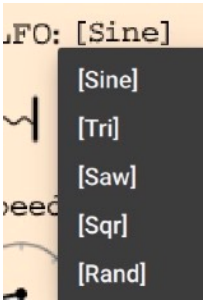
Fade in: Controls the time delayed before the Cut-Off LFO kicks in.

Speed: Controls the time and Speed of the Cut-Off LFO.

Drift: Randomly changes the speed of the Cut-Off LFO **per Oscillator.** This will add a bit of randomization/ separation between each Osc#.

**Mod Wheel Ctl:** This is the Mod Wheel control center where you can control many different parameters all at once. Adjust the amount of one or more to map to the physical Mod Wheel on your MIDI device.

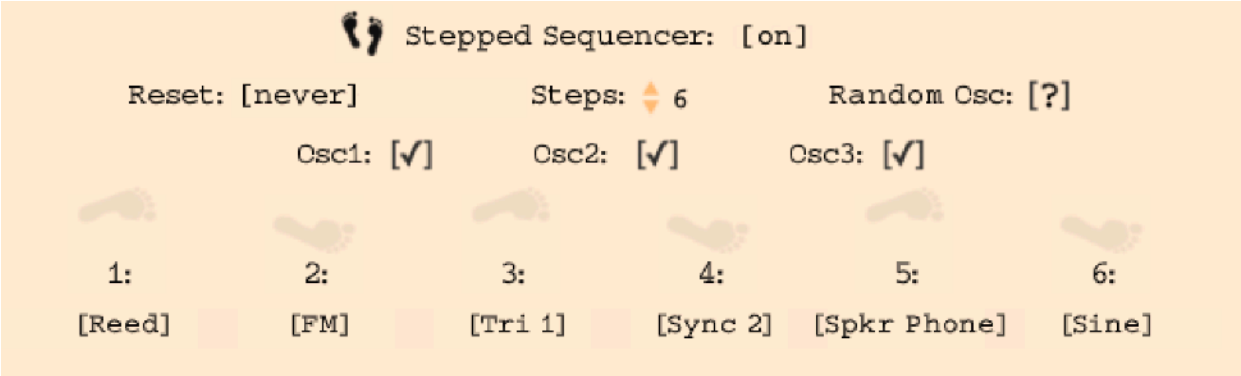
***Tip:** the ModW -> Vib Amt is very sensitive and ranges from **0% to 500%!!** This is for specific sound design purposes, so be gentle when adjusting!*



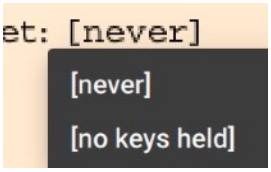

Click the Cut-Off LFO type between the [brackets] to change the loaded LFO shape.

***Tip:** In addition to the Mod Wheel control page, any parameter can be MIDI mapped by right clicking on its knob or slider. Give it a try!*

# Stepped Sequencer




The ***Digi-Osc Stepped Sequencer*** is different from a typical step-sequencer because it only takes a step when a note is received. This adds variation to your melodies or chords by changing the loaded wave shape per note.

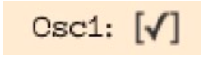



Click the reset parameter between the [brackets] to change when the ***Stepped Sequencer*** goes back to 1.

***Tip:*** ***no keys held*** ***makes it so the first note played is always step 1.*** ***Never*** ***makes it so the first note played is always the next step in line.***

Steps: Changes the max amount of steps it will take before going back to 1.

Random Osc: Will randomly select a wave shape for each of the 6 steps.

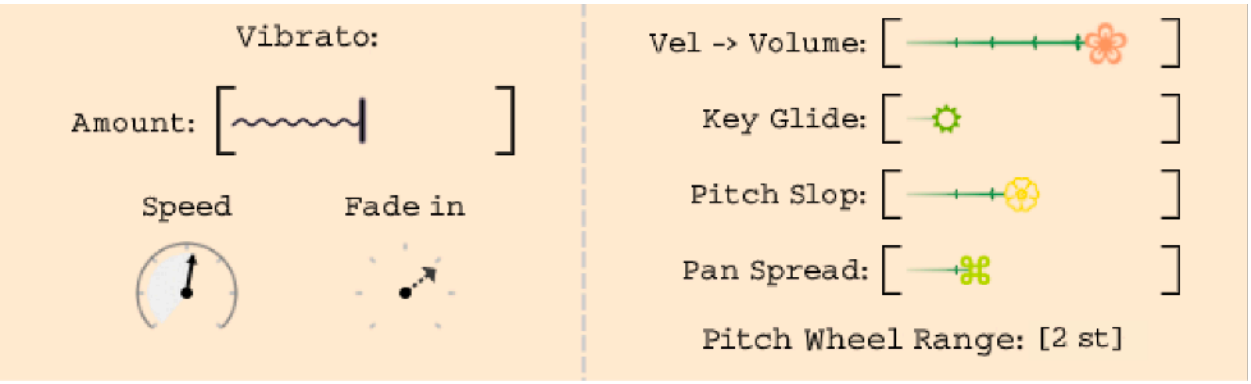



Click the check boxes [✓] to allow the ***Stepped Sequencer*** to change the wave shape for that specific Osc#.


Click the [brackets] below each step number to change the wave shape for each step of the ***Stepped Sequencer.***

***Warning:*** ***By turning the Stepped Sequencer*** ***ON*** ***it will change the wave shape on the main page.***

# Vibrato and Miscellaneous Controls




**Vibrato:** Modulates the pitch of the three oscillators.

Speed: Controls the speed of the Vibrato.

Fade in: Controls the time delay before the Vibrato kicks in.

**Miscellaneous:** is an additional set of controls that add more depth to further shape your sound.

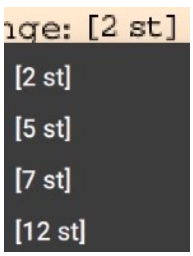
Vel->Volume: Increase/decrease how much the note velocity effects the instrument volume. When off, the note velocity will have no effect on the instrument's Volume.

Key Glide: Increase/decrease the amount of time it takes for the pitch to reach the next new note played. This will work in both Monophonic and Polyphonic voice modes.

Pitch Slop: Increase/decrease the amount of pitch drift between the oscillators. This can range from a vintage feeling to completely unpredictable.

Pan Spread: Increase/decrease the amount of random panning per voice.

Click the semitone between the [brackets] to change the range of the Pitch Wheel.



## "Mod" Presets

Any preset that starts with "Mod" has the Osc# volume MIDI Mapped to the Mod Wheel. **Be aware,** the preset will be silent until the Mod Wheel is increased. This adds another way to control the dynamics of your sound, like blowing harder into a horn.


## How to Install Digi-Osc

***Digi-Osc*** is installed using Native Access. Inside the Native Access app, click on "Add Serial" and input the 25 digit key that you received after purchasing ***Digi-Osc***. For more information on installing Native Access you can go to NI's website. For information or other questions about ***Digi-Osc*** you can contact our website here.

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