

# Maya

Polyphonic Synthesizer  
for Ableton Live

v1.0



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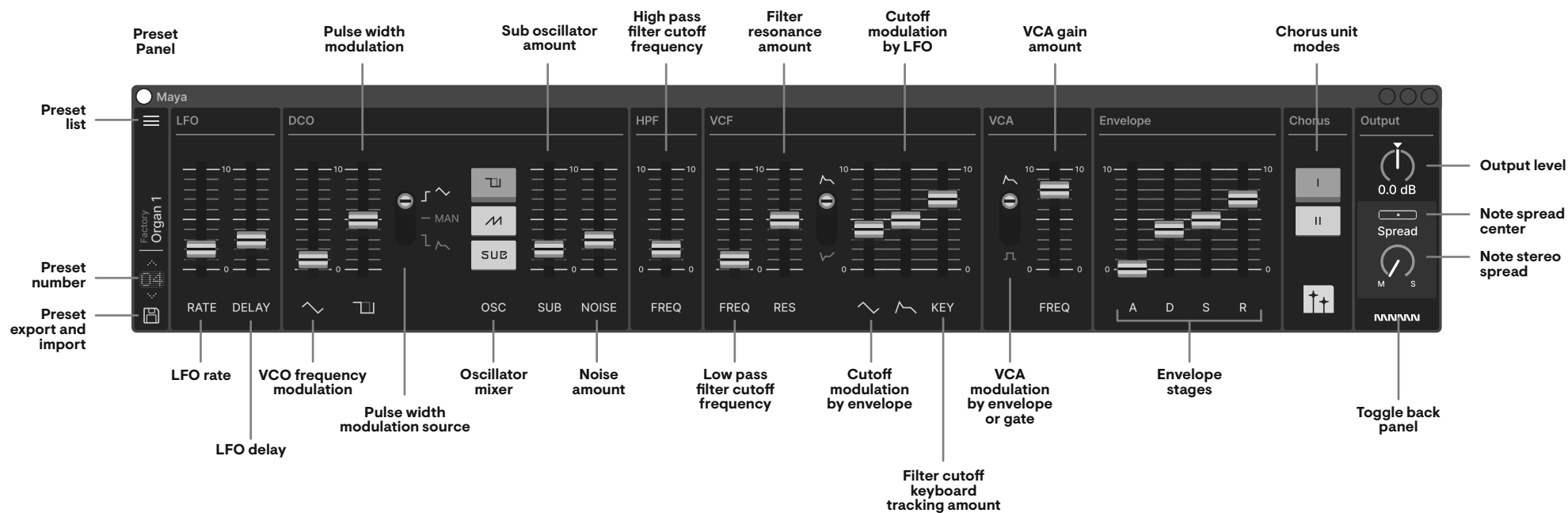
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# Quick Reference

Maya is a polyphonic synthesizer that taps into the soul of classic analog design. Built for musicians who want results, not complexity, it delivers the lush pads, razor-sharp leads, and swirling textures that made synthesizers irresistible in the first place. Every control has a purpose, every parameter makes a difference you can hear. Maya's built-in chorus transforms simple sounds into something alive and breathing, while thoughtful modern touches like stereo note spread and preset storage keep the vintage magic flowing in today's studio.

A diverse collection of presets comes loaded for both convenience and inspiration—from classic bread-and-butter sounds to more adventurous textures that push Maya's sonic boundaries.

With straightforward set of controls, Maya delivers the characteristic Juno sound—warm pads, cutting leads, and vintage textures that sit naturally in a mix. The interface presents every control clearly, letting you focus on sound rather than navigation.

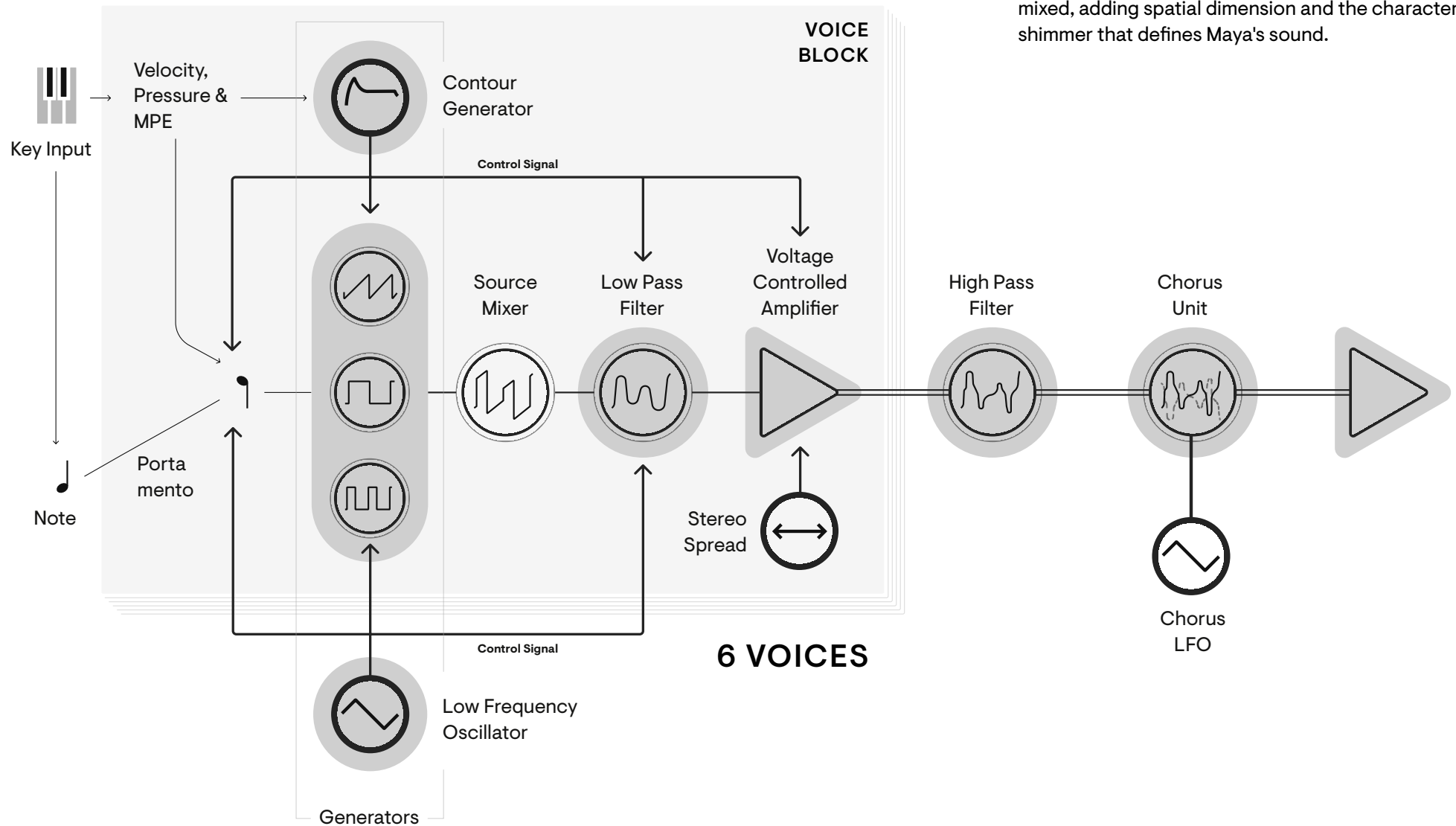


# Signal Path

Maya operates as a 6-voice polyphonic synthesizer, with each voice following the classic signal path that made vintage polysynths legendary. The design follows the classic subtractive synthesis signal path, maintaining the musical relationships between components that define this timeless approach to sound creation.

Each voice follows the same architecture while remaining independent, allowing for rich chord voicing and complex textures. With Monomono signature spread imitating component tolerances, each voice develops unique characteristics making the sound natural and rich.

The chorus unit operates after the individual voices are mixed, adding spatial dimension and the characteristic shimmer that defines Maya's sound.



# LFO



LFO generator produces a triangle wave at the rate set by the fader. While only a single waveshape is provided by the generator, it's transformed internally to better suit each destination—PWM receives the original triangle shape, while oscillator and filter modulation receive a smoother, more sine-like waveform.

The LFO generates slow, rhythmic modulation that breathes life into your sound. Unlike the main oscillators that create audible pitches, the LFO operates below hearing range to cyclically modify pulse width duty cycle, filter cutoff, and oscillator frequency.

The amount of modulation is adjusted in the relative interface sections. These modulations create classic effects such as vibrato-like motion, filter sweeps, and rhythmic pulse width changes that add movement and character to pads, leads, and textures. By varying the rate and depth, you can achieve everything from subtle breathing effects to audible FM effects in the oscillator.

## RATE

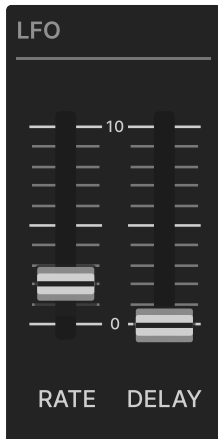
Adjust the frequency of the modulation LFO from 0.12 Hz to around 22 Hz.

Because LFO circuit is modeled after Juno-6 on a component level, it does not offer sync to tempo. Free running LFO can deliver incredibly interesting musical results.

## DELAY

Delay creates a gradual fade-in of LFO modulation sent to oscillator frequency and filter cutoff. The pulse width modulation remains unaffected, allowing for immediate PWM effects while frequency and filter modulation build over time. Think of Delay as an Attack attribute for your LFO.

It's a great tool to simulate some real life instrument effects such as gradually added violin-live vibrato.



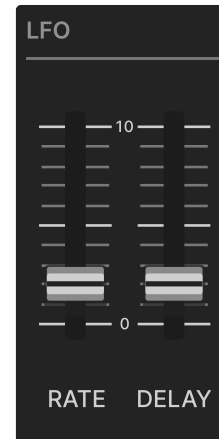
### DELAY 0

LFO signal is sent at full amplitude immediately.

### LFO AMPLITUDE



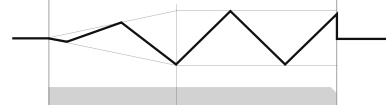
KEY



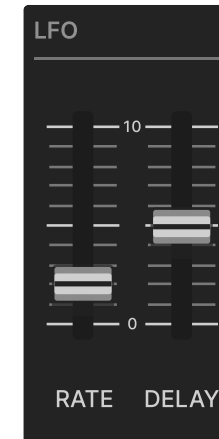
### DELAY 2

LFO signal is sent at full amplitude immediately.

### LFO AMPLITUDE



KEY



### DELAY 5

LFO signal is sent at full amplitude immediately.

### LFO AMPLITUDE



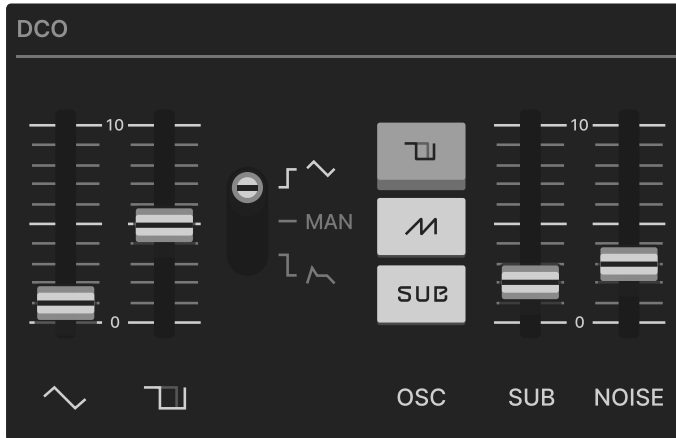
KEY

# DCO

## Digitally Controlled Oscillator

Maya offers three essential waveforms: a bright sawtooth wave, a variable pulse wave with adjustable width, a sub-oscillator that adds low-end power one octave below the main pitch and a noise generator.

Though entirely software-based, it's called a DCO (Digitally Controlled Oscillator) because it emulates the hybrid approach of classic synths where analog waveform generation was controlled by digital timing circuits for stable tuning.



### VCO MOD

Sets the amount of oscillator pitch modulation by the LFO, creating subtle or not-so-subtle pitch fluctuations.



### PWM AMOUNT & SOURCE

You can control the duty cycle manually or modulate it with the LFO or envelope.



### PWM

Variable pulse wave with adjustable width. Narrow settings produce hollow, woody tones; wider settings create fuller, reedier sounds.



### SAW

Bright sawtooth wave rich in harmonics. The foundation for cutting leads, sharp brass sounds, and aggressive textures.



### SUB

Square wave one octave below the main pitch. Adds solid low-end foundation and weight to any sound.



### SOURCE MIXER

Switches sources in and out of the mixer.

### SUB

Adjust the level of the Sub generator going into the mixer.

### NOISE

Noise doesn't have a dedicated switch. Instead you can adjust the level of noise added to the mixer.

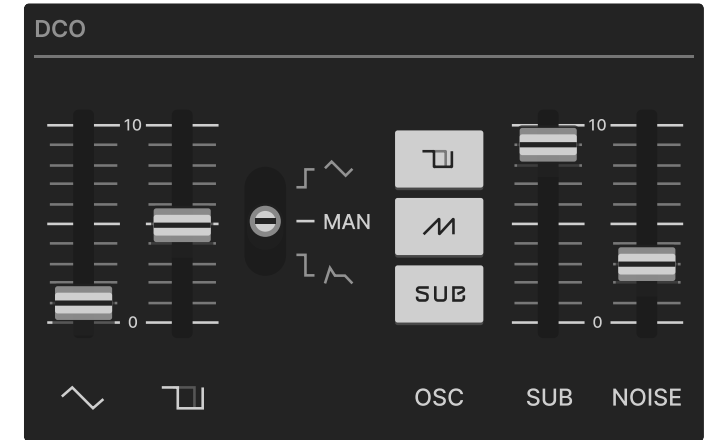
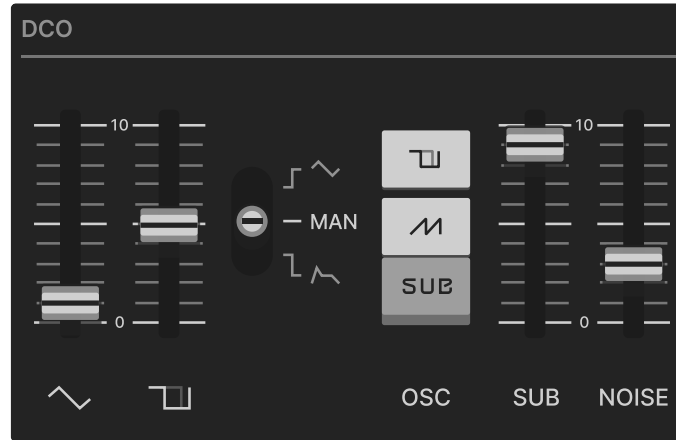
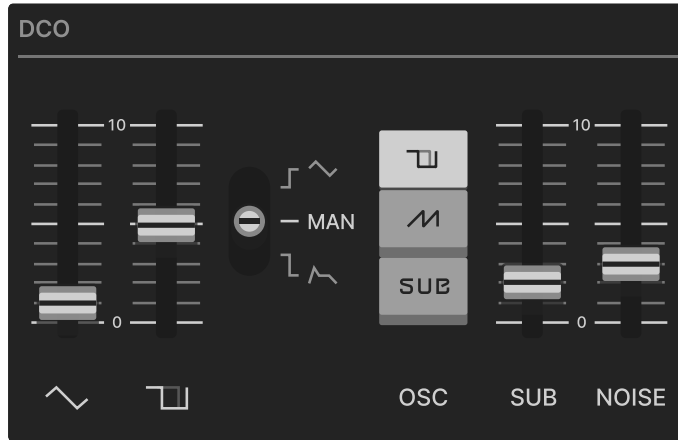
### NOTE

Output level will vary depending on the mixer settings. A single wave will sound quieter than a combination of waves.

## Combining multiple sources

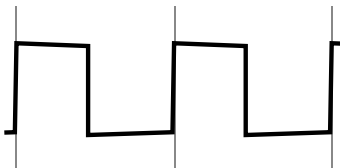
Each oscillator sounds great on its own, each brings a unique signature sound when combined. Mixing several sources together opens a lot of opportunities for sound design.

Sub oscillator, unlike the rest of the sources, has its own separate level control which allows you to dial the right amount of low end.



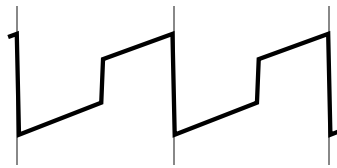
### SQUARE

Hollow to buzzy tones depending on its Pulse Width setting



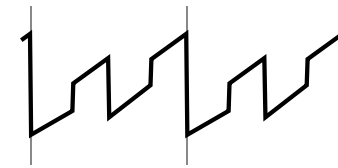
### SQUARE + SAWTOOTH

Brighter, sharper waveform rich in harmonics



### SQUARE + SAWTOOTH + SUB

Sub oscillator is a pulse wave, which adds a deep foundation below the main pitch for a thick buzzy tone



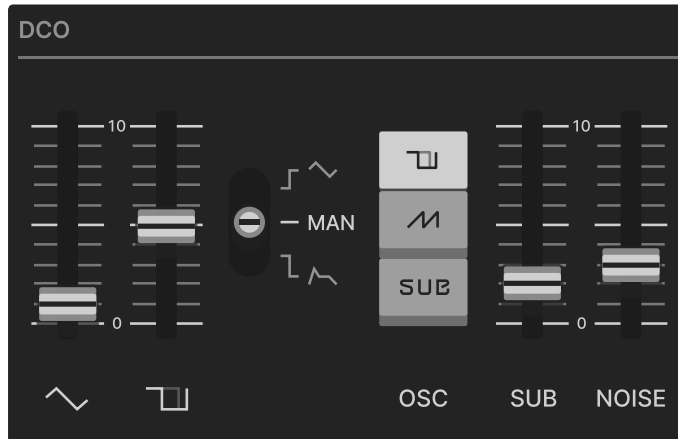
### “SECRET” SINE WAVE

The resonant low pass filter when resonance close to max also generates a pure sine wave which is a special feature of this filter design.

## Pulse Width Modulation

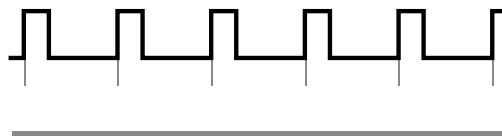
Pulse Width Modulation transforms the static pulse wave into one of synthesis's most expressive tools. It centers around controlling the duty cycle—the ratio between the wave's high and low periods.

Maya offers three ways to shape this: manual control for static timbres, LFO modulation for rhythmic sweeping effects, and envelope modulation for evolving tonal changes.

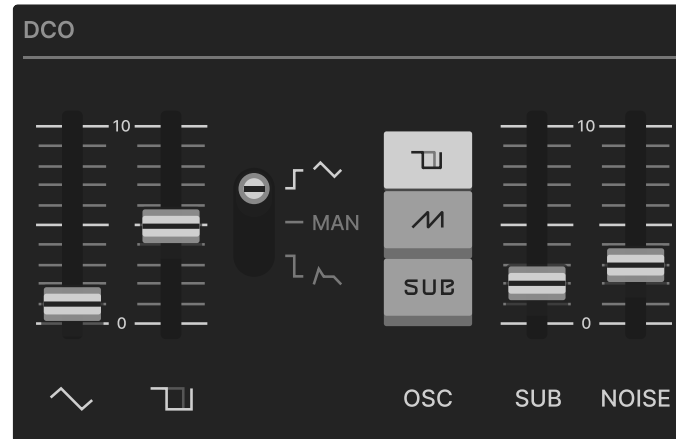


### MANUAL DUTY CYCLE

Manually set the duty cycle.

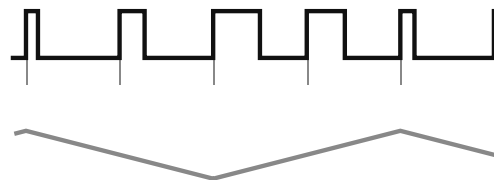


Allows adjustment of timbre from thick to thin and screeching. Almost acting like a high pass filter.

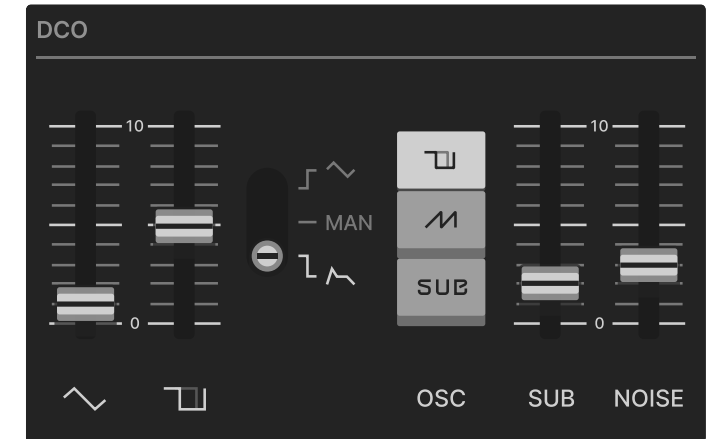


### MOD

Duty cycle is modulated by mod section.

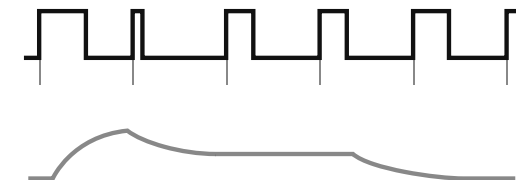


Depending on the LFO rate modulation creates phasing effect ranging from subtle to almost distorted.



### ENVELOPE

Duty cycle is modulated by the envelope.



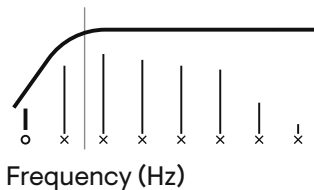
Allows to create natural sounding harmonic changes in the signal. Depending on the modulation amount can create piano hammer-like effect or sharp percussive sounding effect.

# HPF & VCF

## High Pass Filter & Resonant Low Pass Filter

### HPF

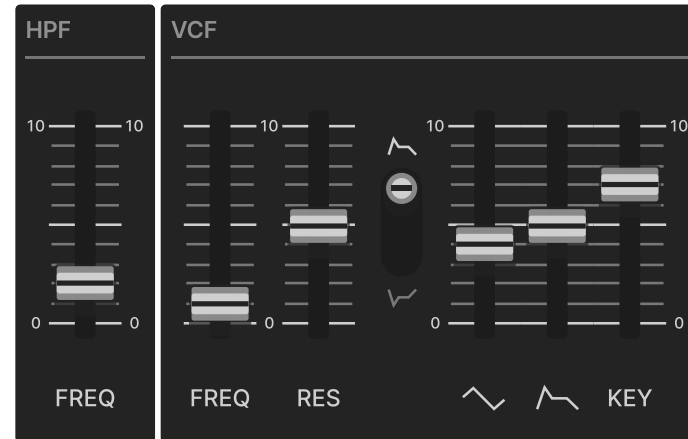
High pass filter is a single pole filter with a range of 16 Hz up to 820 Hz at maximum position.



### FREQ

Determines the cutoff point of the HPF and VCF.

The combination of HPF and VCF gives you complete frequency control over your sound. The HPF provides simple, effective high-pass filtering to clean your sound for a tighter mix.



### LFO MODULATION

Fader adjusts the depth of the cutoff point modulation by the output signal from the modulator.

### ENVELOPE MODULATION

Fader adjusts the depth of the cutoff point modulation by the output signal from the envelope generator.

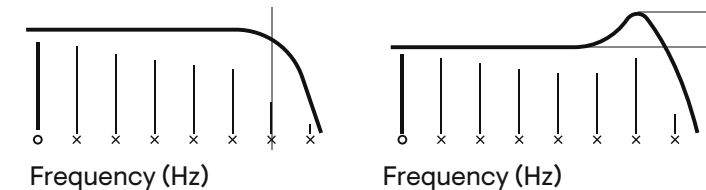
### INVERTED ENVELOPE MODULATION

Interesting feature of this design is the inverted envelope action on the cutoff frequency. It essentially closes the VCF from it's highest position determined by the FREQ, KEY and LFO modulation. This allows incredibly interesting patterns—for example, reverse tape playback sounding effects with the FREQ and ENV setting high.

The VCF is where the real character shaping happens—with extensive modulation options and resonance control, it transforms raw oscillator output into expressive, dynamic tones. Together, they let you carve out exactly the frequency range you want while adding the movement and character that makes sounds come alive.

### VCF

The VCF is a resonant low-pass filter that shapes the timbre of your sound by controlling which frequencies pass through. The FREQ fader sets the frequency point above which harmonics are attenuated, while RES emphasizes frequencies around the cutoff point.



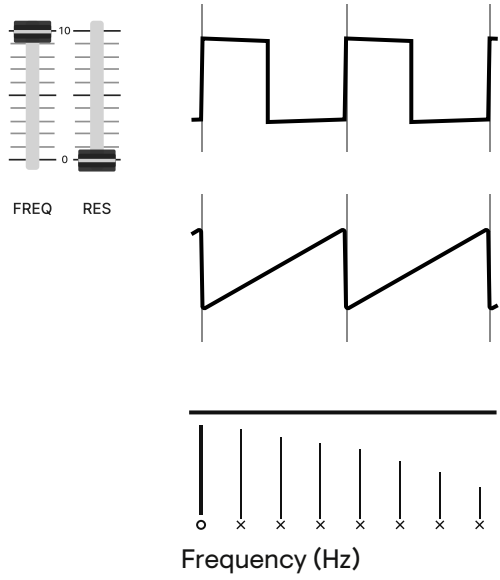
### RESONANCE

Emphasize the frequency at the cutoff point. As you raise the knob, certain harmonics are boosted. With resonance at about 6, self-oscillation will begin at the cutoff point producing a clean sine tone.

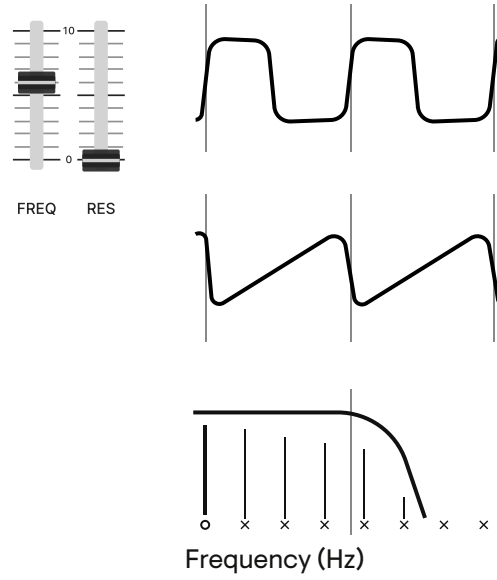
### KEY

Adjust the amount of key tracking sent to the filter. At 10 filter cutoff frequency will directly correspond to the note played. It prevents any inconsistency in the harmonic content caused by pitch alteration.

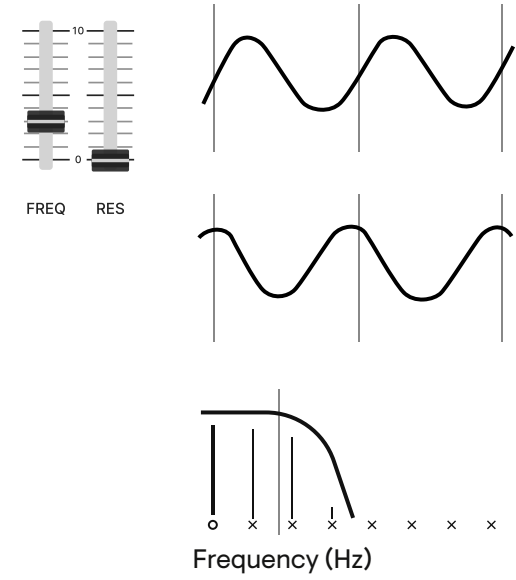
**FREQ 10**



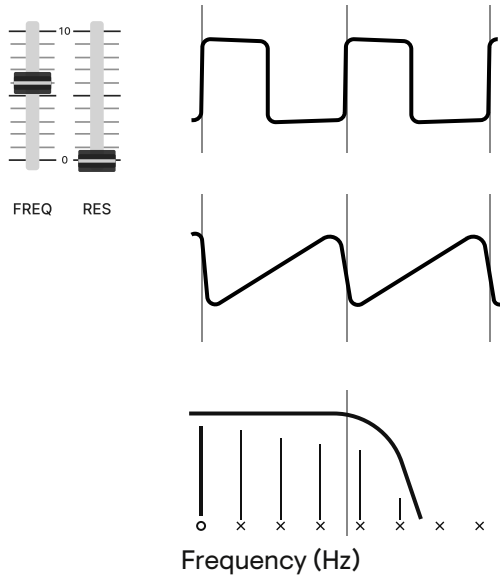
**FREQ 6**



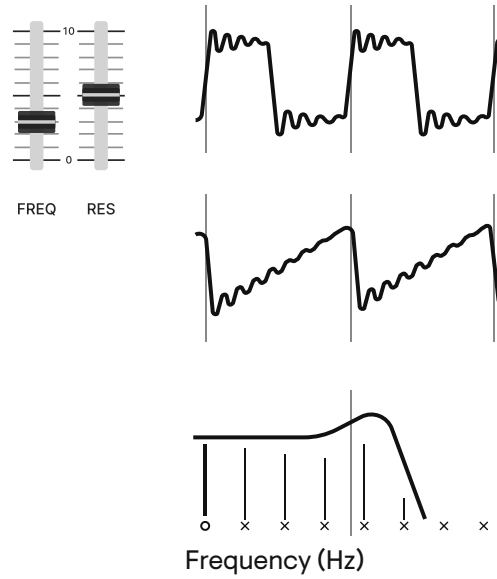
**FREQ 3**



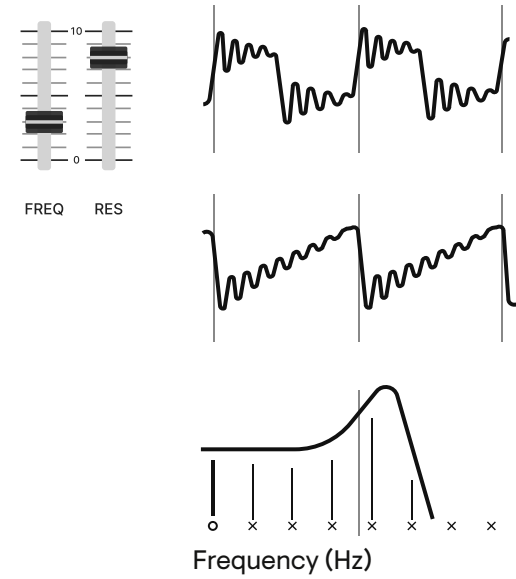
**RES 0**



**RES 3**



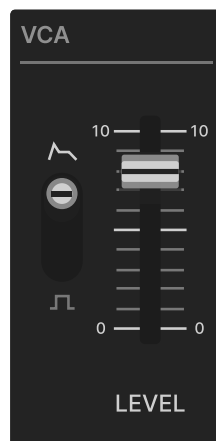
**RES 6**



# VCA

## Voltage Controlled Amplifier

The VCA (Voltage Controlled Amplifier) sits at the end of each voice's signal path, controlling the final amplitude and adding the finishing touch to your sound's character.



### CONTROL VOLTAGE SOURCE

Selects the source of control voltage — envelope or gate.

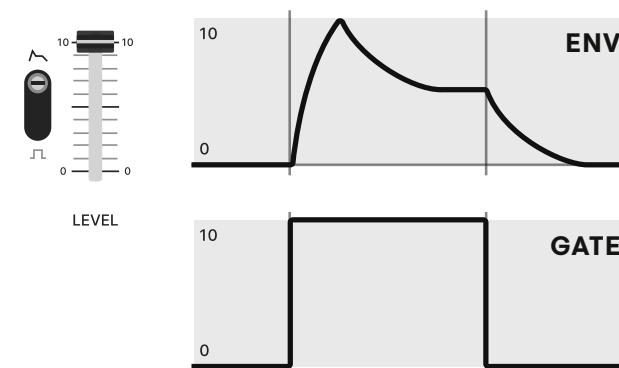
### LEVEL

Attenuate the amplitude of the envelope or gate going into VCA.

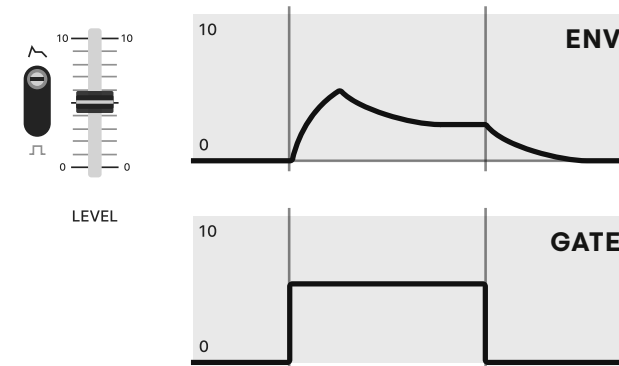
### VCA SATURATION

More than just a volume control, Maya's VCA models the subtle saturation and warmth of analog hardware—when driven hard, it adds the gentle compression and harmonic richness that real op-amps and VCA chips contribute to classic synthesizer sounds. This analog-style behavior ensures that even simple patches have the organic feel and musical saturation that made vintage synths so appealing.

### LEVEL 10



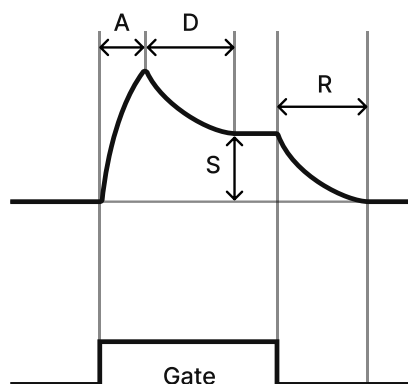
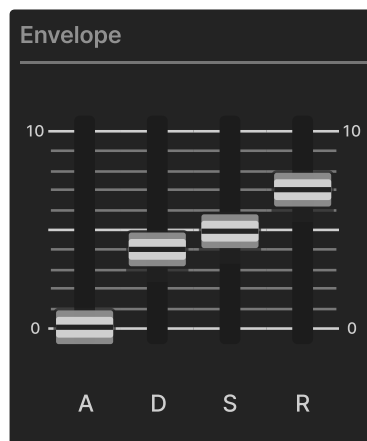
### LEVEL 5



# Envelope

The four stage envelope generator is a powerful sound sculpting tool, shaping how notes evolve from the moment you press a key until after you release it.

By adjusting stages, you can create sounds that explode with instant presence, slowly bloom into existence, or anything in between.



## ATTACK

determines how quickly the sound begins after pressing a key. At zero, the sound starts instantly; as you increase the attack time, the sound will fade in more gradually – perfect for sweeping pads or soft string sounds.

## SUSTAIN

Controls the volume level that holds steady while you keep the key pressed. Higher settings maintain the sound's presence, while lower values let it settle into the background.

## DECAY

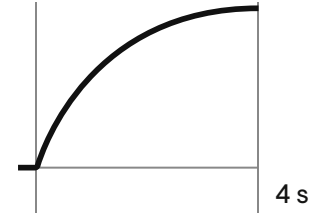
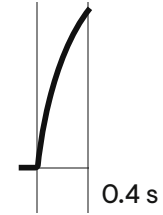
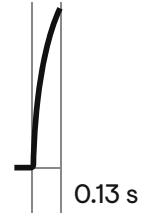
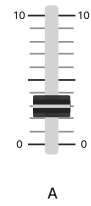
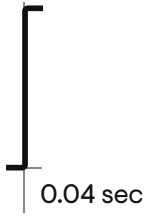
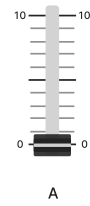
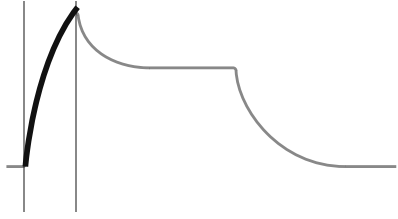
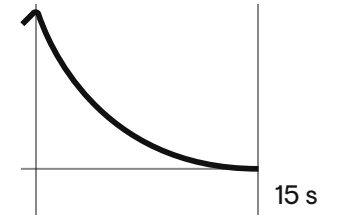
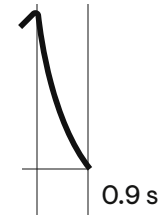
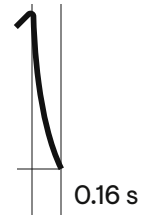
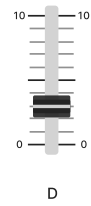
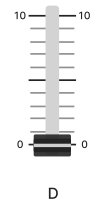
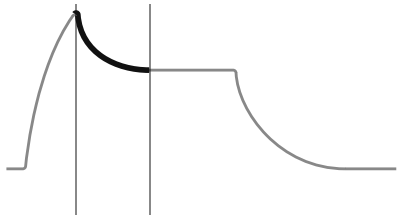
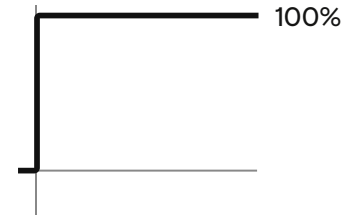
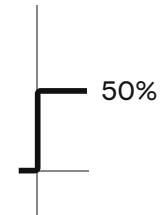
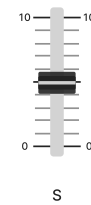
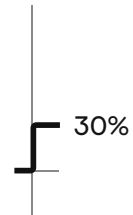
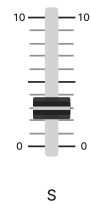
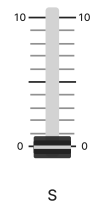
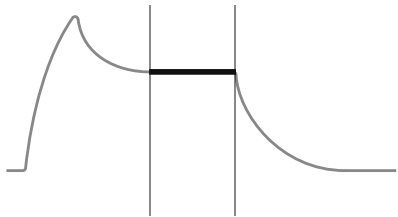
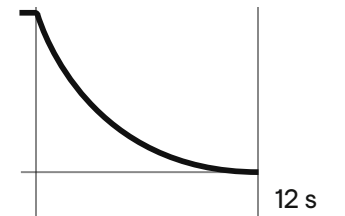
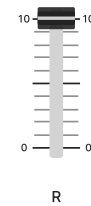
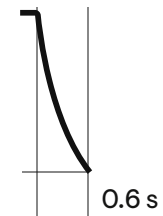
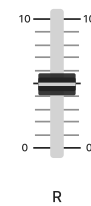
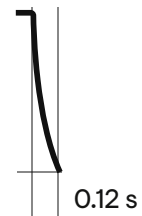
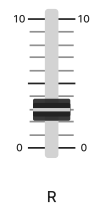
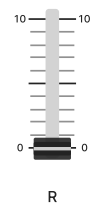
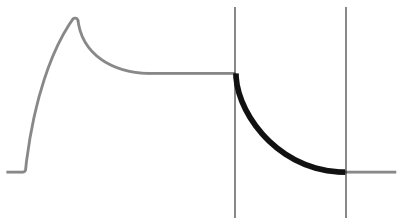
Sets how long it takes for the initial peak level to fall to the Sustain level. Short decay creates punchy, percussive sounds, while longer settings give a more gradual evolution.

## RELEASE

Sets how long the sound continues after you let go of the key. Short Release creates tight, defined endings, while longer times let notes trail off naturally into silence.

## NOTE

If the faders are at 0, only a pop will come out of the synth.

**ATTACK**

**DECAY**

**SUSTAIN**

**RELEASE**


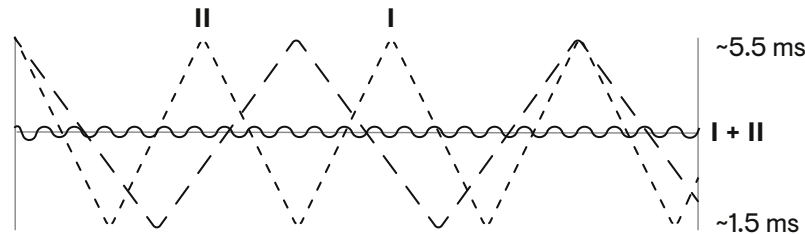
# Chorus



The Chorus unit is Maya's signature effect, transforming chords into rich, spatial soundscapes. By creating slightly delayed and modulated copies of your signal, the chorus adds movement, depth, and the characteristic shimmer that defined an era of synthesizer music. It works by emulating bucket brigade delay (BBD) circuits with 256 stages of delay that introduce subtle pitch variations, making simple sounds feel alive and expansive.

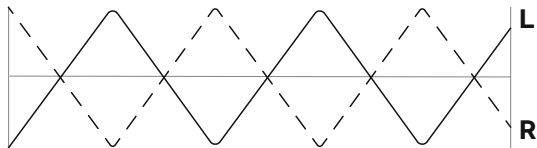
Maya's three-mode chorus system gives you control over the intensity and character of this effect. Whether you want subtle thickening or dramatic stereo movement, the chorus breathes life into every sound, turning static patches into dynamic, evolving textures that fill the stereo field with organic movement.

At the heart of the Chorus effect is the LFO which changes shape, frequency and amplitude which changes the delay time modulation.



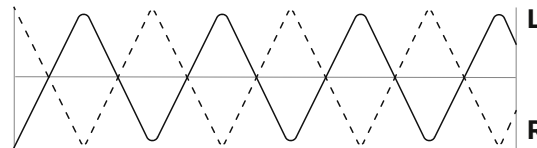
## MODE I

Creates a gentle, slow-moving chorus effect driven by an LFO at approximately 0.4 Hz. The modulation is inverted between left and right BBD (bucket brigade delay) units, producing a wide, sweeping stereo image that breathes slowly with your sound.



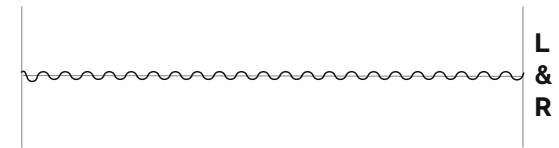
## MODE II

Delivers a slightly faster chorus movement with the LFO running at approximately 0.6 Hz. Inverted modulation between the left and right BBD units, but the increased speed creates more noticeable movement and shimmer while maintaining the classic stereo spread.



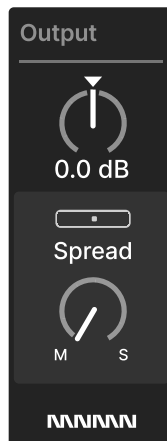
## MODE I + II

Both combined delivers non-inverted modulation with reduced amplitude more resembling the vibrato effect with the faster ~8 Hz modulation. This mode does not deliver the same rich, wide stereo phasing effect like exclusive modes, but creates an interesting quick vibrating effect more akin to organ vibrato.



# Output & Spread

The Output section provides two essential controls for shaping your final sound. The Output level knob allows you to precisely adjust the overall volume of your synthesizer, helping you balance it perfectly in your mix.



## OUTPUT

Allows to adjust the output signal of the synth to  $\pm 24$  dB.

The Spread controls position your voices between left and right channel around the center note based on the note voice is playing.

You can adjust how wide the notes are spread and the center note which determines the center position.

## SPREAD

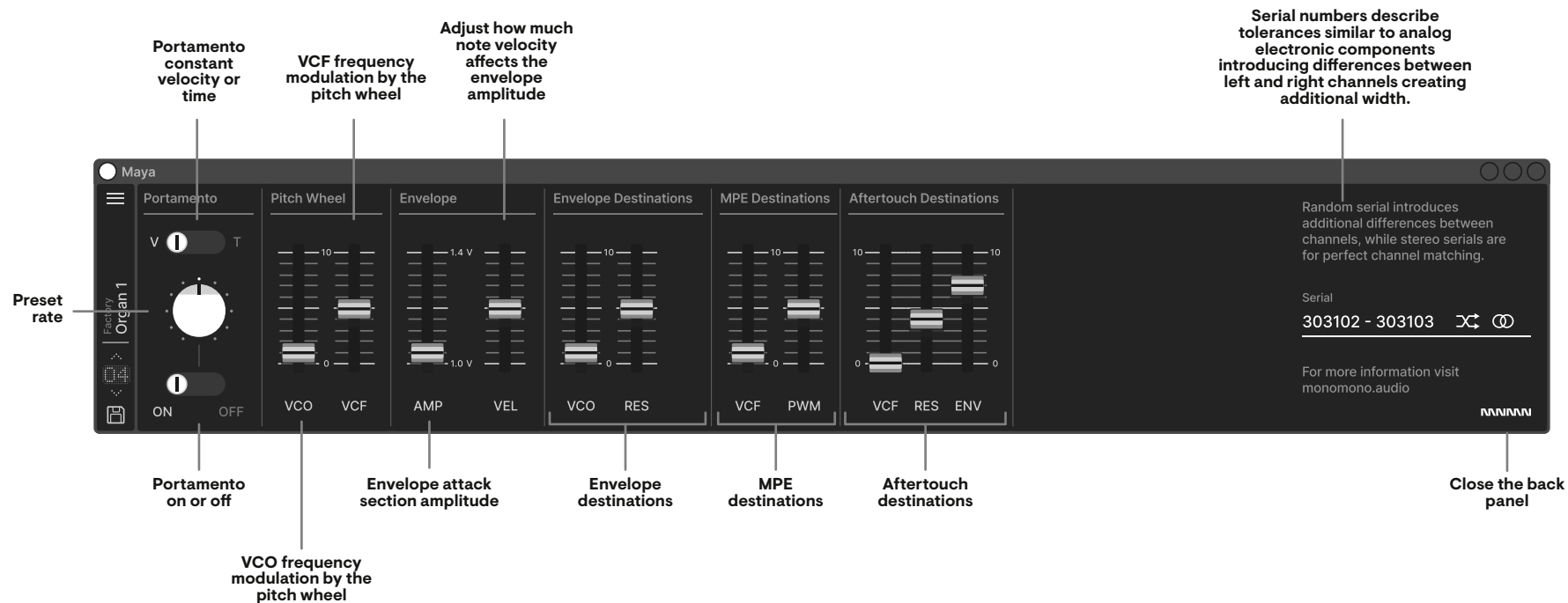
The note spreading effect—where lower notes are balanced to the left while higher notes move to the right—can be additionally tuned in the back panel (see next page).

# Back Panel

## Additional Controls

Back panel with additional controls can be accessed by clicking the MNMN logo in the output section. It exposes controls built on top of the classic tool set to provide additional range for sound design and MPE playability.

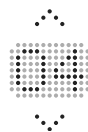
Even though Portamento only became available on the Juno series synths in Juno-106, Maya includes portamento ability and expands on it with choice of constant velocity or constant time selection.



# Presets

Maya includes generous collection of diverse presets ranging from mellow keys, pads, rumbling bass, resonant bells and sophisticated effects. It's a great starting points to explore the palette of sounds Maya offers and start creating your own.

You can export your own presets to then later import and use in your projects.



## SELECT PRESET

Use the number slider or arrows to switch the presets.

To reload the preset, switch the preset up and back to the selected.

All adjustments made to faders will be lost when changing to factory preset, unfortunately, so save your custom preset or device as .adg file to restore later.



## EXPORT & IMPORT PRESET

You can export your custom fader position as a .json file which will be saved to your desktop.

You can import it later by selecting the .json file and the fader positions will be set according to your saved preset.

When you import the preset, it's stored as User Preset at position 57.



## PRESET LIST

You can view all presets as a list with titles.

Imported preset is listed at last position (57).

## KEEP IN MIND

The presets do not manage output, spread or backpanel fader positions as they are related to specific track needs and play style. They will not be adjusted or stored as you change or import presets.



## NOTE FROM NIKITA

Unfortunately, current implementation doesn't allow to control the Undo history in Live in a meaningful way, so going back and forth while changing presets doesn't work as well as I hoped it would. 💔💔

My apologies for that! 😞

We'd love to hear from you on how to improve the preset system, so don't hesitate to reach us at [info@monomono.audio](mailto:info@monomono.audio) or through our social accounts. We really appreciate your comments and feedback. 🙏

# Maya Chorus

## Standalone Chorus Device

Every purchase of Maya includes the standalone version of the Chorus which you can use as an effect on any of your favorite synths or other sources.

It's identical in its operation and sound to the one built into the Maya and provides the same rich and lush Chorus effect and can be used on Push 3 in Standalone mode.



# Under The Hood

Polyphonic 6-voice digital synthesizer inspired by classic 1980s design

Three waveform sound engine (sawtooth, square with PWM, sub oscillator) and noise antialiased for maximum aliasing rejection

Multiple Pulse Width Modulation sources (Manual, Modulator, Envelope)

Authentic four-pole resonant saturating low-pass filter.

Built-in modulation source with triangle output, variable rate and delay

Flexible ADSR four-stage envelope

Saturating VCA for added warmth and character.

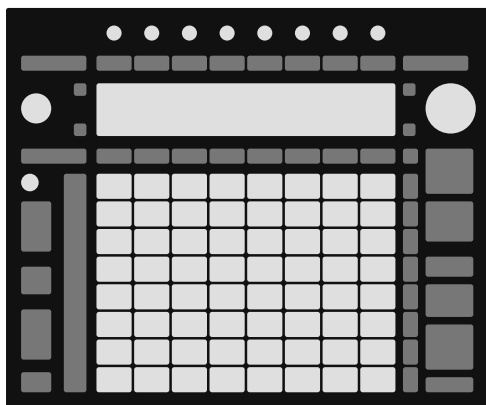
Portamento with variable and constant rates for expressive glides

Built-in preset system with diverse set of presets and ability to export and import presets

Variable stereo spread with tunable note distribution

MPE and aftertouch support for expressive playing

4x oversampled oscillator sources and filter stage for pristine audio quality



**FULL SUPPORT FOR  
PUSH 3 STANDALONE  
AS WELL AS PUSH 2**

**MONO ONE REQUIRES  
LIVE 11+ SUITE**

# Release Notes

**1.0 – JULY 25, 2025**

Initial Release