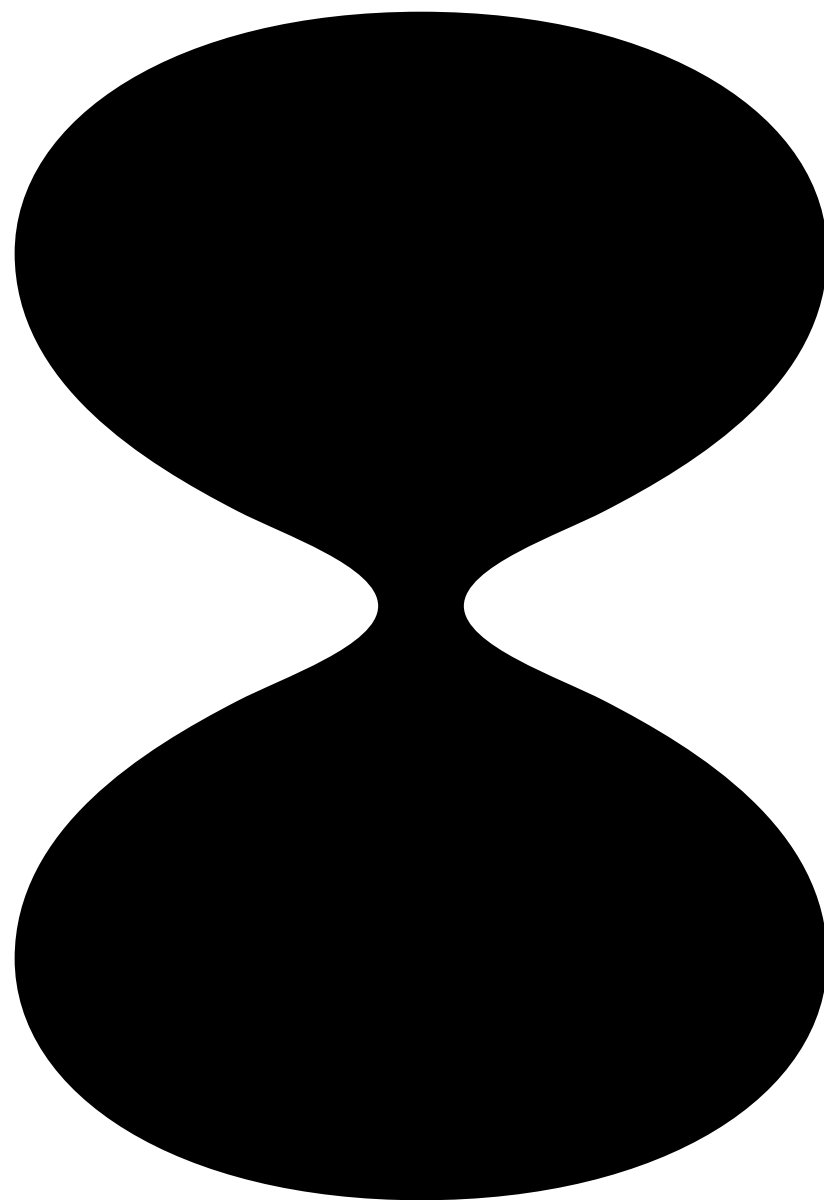
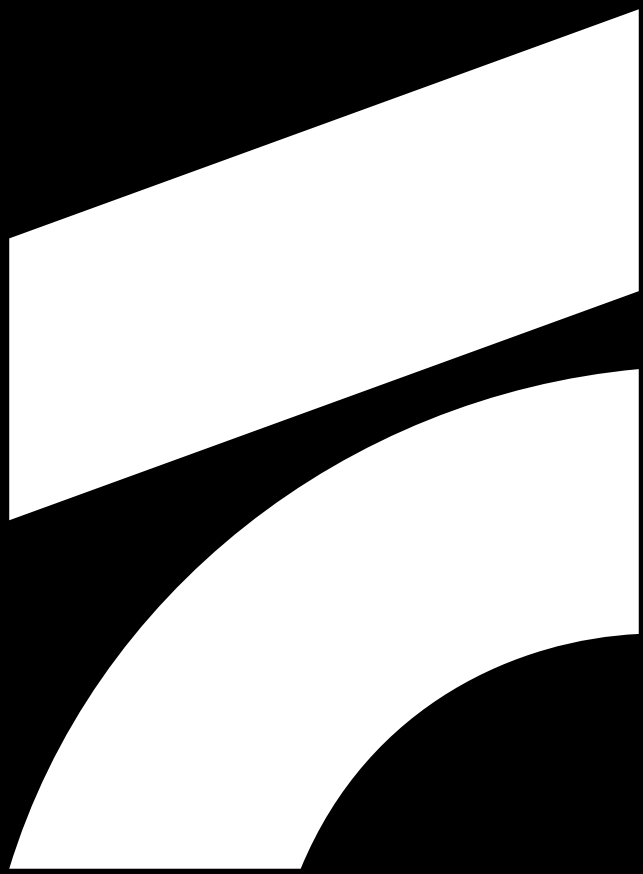


Doublet



Ambidextrous Synthesizer

Doublet is a Max for Live device with wavetable synthesis in one hand and FM in the other.



Doublet

Carrier



X 0.0 Y 0.0 Bend 0.0

Mod 15.0 % Mix

Modulator



X 0.0 Y 0.0 Bend 0.0

Attack 0.0 Decay 40 End 50

Ratio 2 : 1 Fine 0.0

Fdbk 0.00 % Env

Filter



Focus 2.0 Env 0.0

Cutoff 100.00

Env

Attack 0.25 Hold 0. Release 25.00

Voice



Unison Slide Vol 60.0 %

LFO

Dest: Carrier X



Fade 0.0 Jitter 0.0

Speed 15.00 Depth 0.00 %

Slope



Carrier Y

Rise 25 Fall 25

Depth 0.00 %

2 × 2D-FM Wavetable Oscillator
1 × ADE Operator Envelope
1 × Variable Slope Lowpass Filter
1 × Ordinary AHR Amp Envelope
1 × Flexible LFO Modulator
1 × Looping Slope Modulator
& a Dynamic 3-voice Unison engine

Requires Ableton Live 10.1 or above

Carrier 



X 0.0 Y 0.0 Bend 0.0

Mod  15.0 % Mix 

1

2

3

The Carrier oscillator is the principal sound source which typically receives modulation to increase its timbral complexity.

① Wavetable parameters

The Doublet oscillators are 2-dimensional wavetable oscillators that can scan through their waveforms in [X] and [Y] directions. The oscillators also has a phase distortion function called [Bend] which skews the waveform forward or backward, making it sound buzzier.

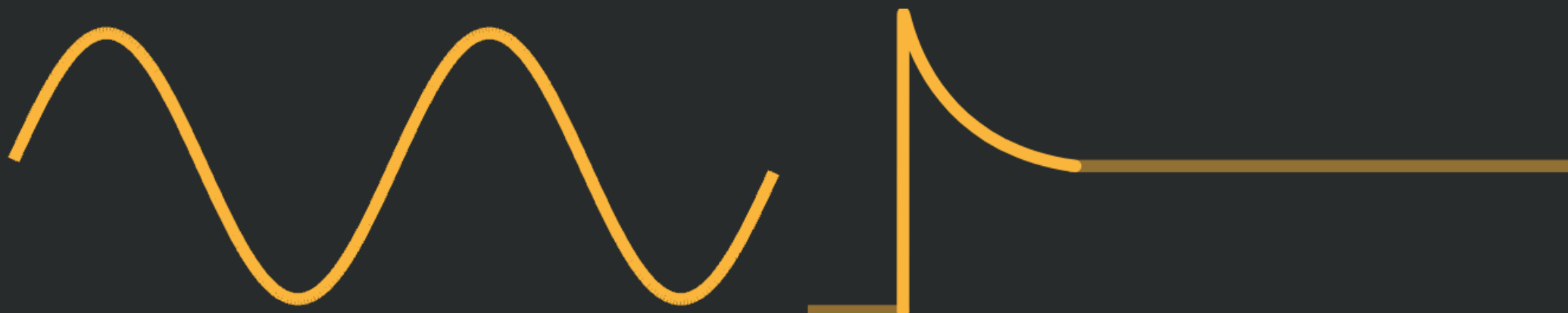
② Phase Modulation Index

[Mod] increases the amount of phase modulation received by the modulating oscillator. [Mix] will add the signal of the modulating oscillator to the output when [Mod] is below 10%.

③ Oscillator Phase Sync

If enabled, the oscillator will reset its phase every time there is a note on event. This is useful for keeping a consistent timbre. If turned off, the sound will be a bit livelier.

Modulator



X



0.0

Y



0.0

Bend



0.0

Attack



0.0

Decay



40

End



50

Ratio



2 : 1

Fine



0.0

Fdbk



0.00 %

Env



1

2

3

4

5

The Modulator Oscillator is based on the same architecture as the Carrier, but has an envelope tied to its output and the possibility of self-modulation.

① Wavetable parameters (Refer to the Carrier section)

② Frequency Ratio

The [Ratio] sets the frequency multiple of the Modulator, determined by the incoming note. [Fine] offsets the [Ratio] in fractions from 0 to .50

③ Oscillator Phase Sync (Refer to the Carrier section)

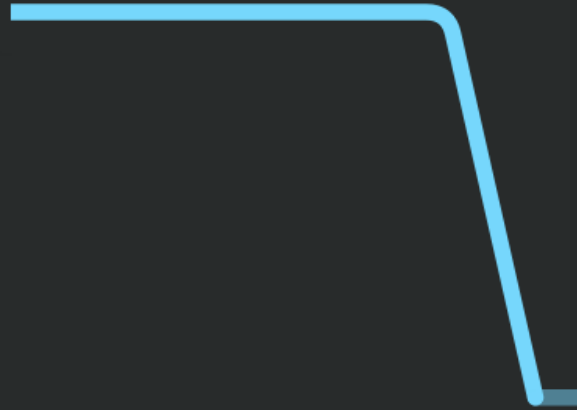
④ Modulation Envelope

The envelope of the modulator will attenuate its signal over time and is useful for introducing timbral changes over time. [Attack] sets the duration of the fade-in time, [Decay] the fade-out and [End] sets the destination amplitude, useful for retaining modulation when the envelope is finished.

⑤ Feedback

[Fdbk] controls the self-modulation amount, increasing sharpness. [Env] selects if it occurs pre- or post-envelope.

Filter



Focus

Env



2.0

0.0

①

Cutoff



100.00

②

The Filter is a non-resonant lowpass filter with dynamic mixing between filter poles for variable steepness.

① Filter Controls

[Focus] will control the amount of filter poles seamlessly, with a steeper cutoff at higher values. [Env] adjusts incoming signal amount from the Amp Env, plucking the filter.

② Cutoff Frequency

The [Cutoff] controls sets the frequency of the filter cutoff, lower values will pass less high frequencies and vice versa. At 100%, the filter will have no effect on the signal at all.

①

Env 

Attack

②



0.25

Hold

③



0.

Release

④



25.00

The Amp Envelope controls the dynamics of the synthesizer voice over time.

① Gate On/Off

The Note symbol controls whether the Envelope is in Gate mode or not.

② Attack Duration

[Attack] sets the time of the fade-in time of the envelope.

③ Hold Duration

[Hold] sets how long the envelope will wait until it goes on to the Release stage. If [Gate] is enabled, the duration will be determined by the MIDI note length received.

④ Release Duration

[Release] sets the time of the fade-out time of the envelope.

①

Voice ▾



Unison

②



Slide

③



Vol

④



60.0 %

The Voice panel controls the final output.

① Voice Count

The drop-down menu will determine how many voices is used by the device. The more voices, the more CPU is required.

② Unison

This introduces one voice above and below the main voice and detunes them from slight beatings to a full octave. This also introduces a stereo effect.

③ Note Slide

[Slide] will adjust the amount of portamento between notes.

④ Volume

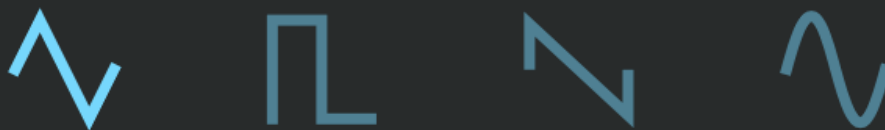
This controls the overall volume of the device.

LFO

①

Dest: Carrier X ▼

②



③

Fade Jitter

0.0 0.0

A dark grey rounded rectangle containing controls for 'Fade' and 'Jitter'. Each has a circular knob with a vertical line and a '0.0' value below it. To the right are icons for a lock, a musical note, and a double arrow.

④

Speed



15.00

Depth



0.00 %

The LFO is a Low Frequency Oscillator that can introduce movement to various parameters.

① Modulation Destination

This sets which parameter the LFO will modulate.

② LFO Shape

This selects which waveform shape the LFO will output

③ LFO Details

[Fade] will add a fade-in (minus) or fade-out (plus) to the LFO signal and is triggered each note event. [Jitter] introduces randomness, [Padlock] will sync to the BPM, [Note] will track the pitch and [Arrows] will restart the LFO per note or not.

④ Speed & Depth

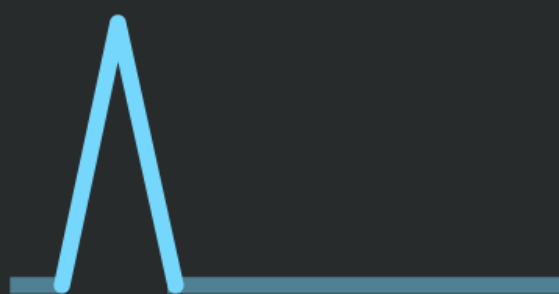
This sets the [Speed] and Modulation [Depth] from the LFO. For tempo-sync, the Speed should be set to divisors of 5.

①

→ Slope

②

Carrier Y ▼



③

Rise



25

Fall



25

④

Depth



0.00 %

The Slope generator is a modulation source that functions much like an envelope, but has the ability to loop.

① Loop On/Off

Enabled, the slope will loop once it reaches its end.

② Slope Destination

③ Slope Time

[Rise] sets the fade-in time and [Fall] the fade-out.

④ Depth

This sets the modulation amount from the Slope received by the destination parameter.

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