

ENKL
MONOPHONIC
SYNTHESIZER

D O C U M E N T A T I O N

Introduction

This is the user manual for “Enkl - Monophonic Synthesizer”, developed by [Klevgränd produktion](#). The synthesizer comes in two versions – an iPad app and a Desktop plugin (AU & VST).

[Get the iOS version at the App Store](#)

[Get the AU / VST version at klevgrand.se](#)

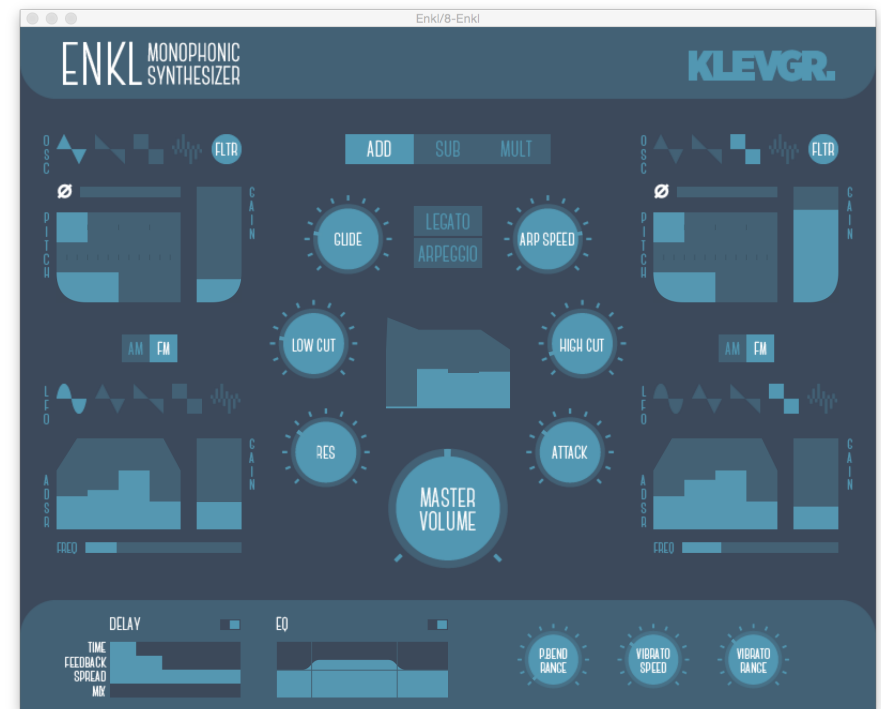
The name Enkl comes from the Swedish word “Enkel”, which translates to “Simple” or “Easy”. With that name, we’re trying to say that the app is easy to use. A stroke of geniusmentness!

Enkl’s sound is generated by two oscillators with one LFO each. These oscillators can be added, subtracted or multiplied together, and optionally processed through a filter.

In addition to the above, there is a simple built-in arpeggiator, a delay and a three-band EQ.

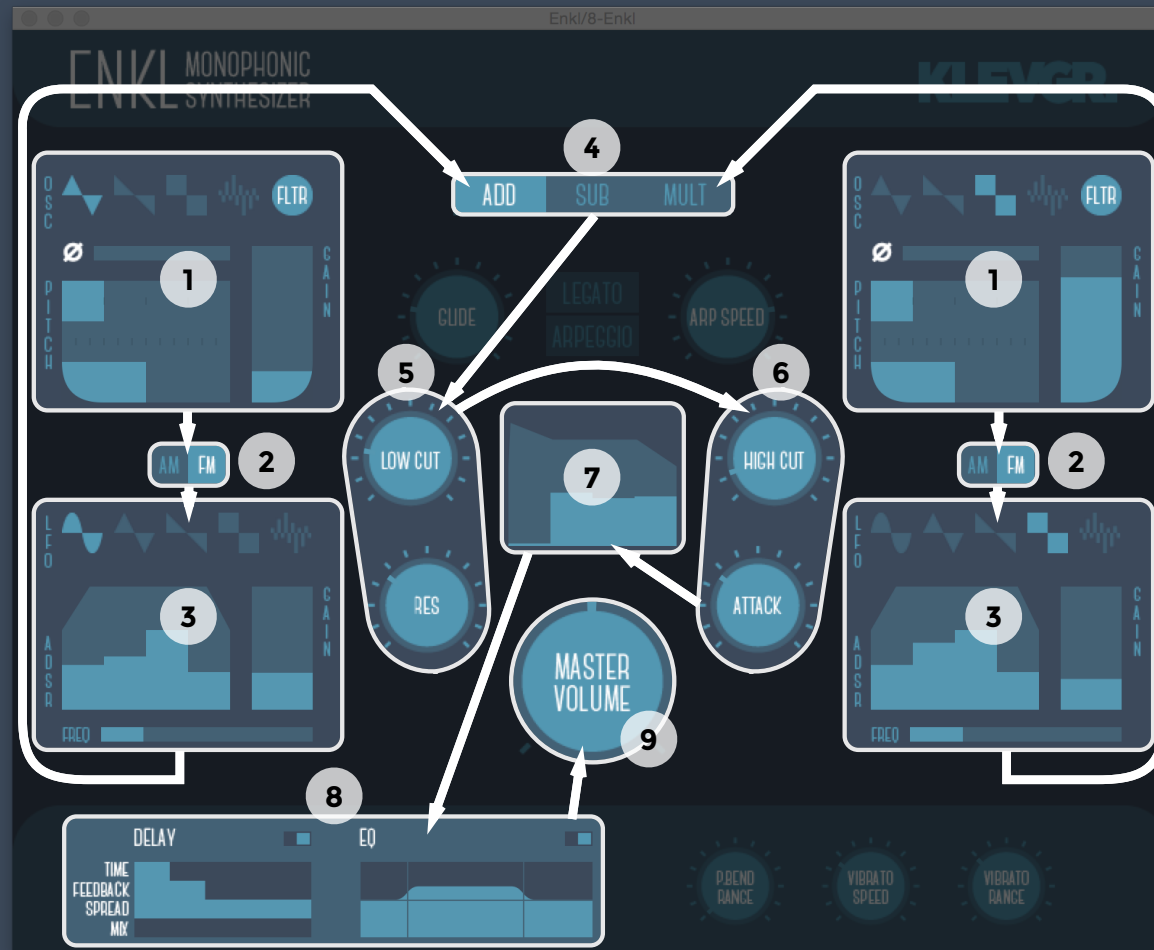
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1. Signal flow chart

1. Oscillator(s) →
2. are modulated (Amplitude or frequency modulation) →
3. with an LFO + ADSR.
4. Both signals are summed (added, subtracted or multiplied) →
5. and sent to the Low Cut filter with resonance →
6. and also passes the High Cut filter with controllable attack time.
7. The signal goes through an ADSR →
8. and runs through an EQ and Delay (if set to on)
9. Finally it passes the output gain and we're done!

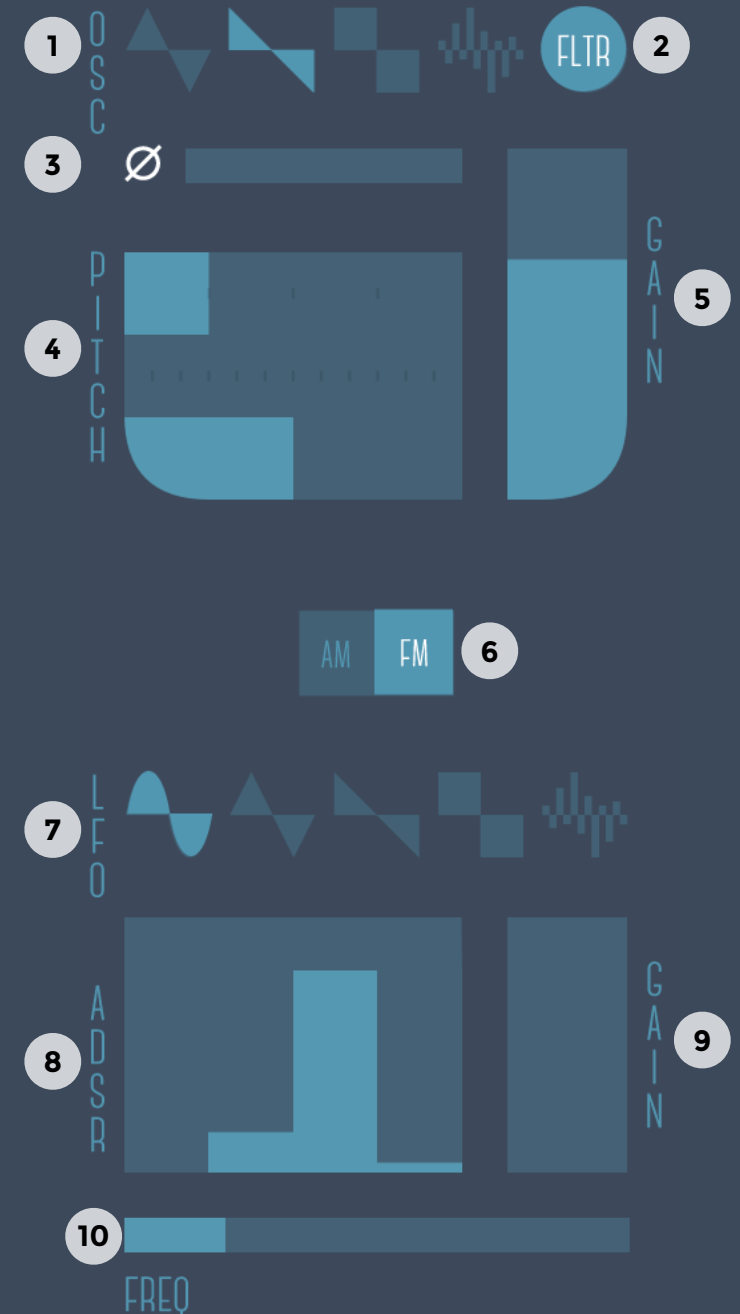


2. Oscillators

1. **Waveform type:** There are four types of waveforms: Triangle, Sawtooth, Square and noise
2. **Filter switch:** Click to enable / disable filter
3. **Phase offset:** Drag the slider to change the starting offset of the waveform between 0 and 360 degrees
4. **Base pitch:** The topslider changes the note's pitch in octave increments, the second slider in semitones, and the third in cents for fine tuning
5. **Gain:** Increase the volume of the oscillator signal

3. LFOs

6. **LFO mod type:** Sets how the LFO should modulate the oscillator above. AM creates amplitude modulation (multiplying the two signals), while FM alters the pitch (frequency) of the oscillator
7. **LFO Waveform type:** From left to right: Sine, Triangle, Sawtooth, Square, Noise
8. **ADSR envelope:** Drag the sliders to alter attack, decay, sustain and release for this LFO
9. **LFO Gain:** Sets the overall level of the LFO. (Note: If the LFO is set to AM, see 6, and gain is set to 0, the final output will be silence)
10. **LFO Frequency:** Ranges from 0.1 Hz (min) to 20 Hz (max).



4. Global

1. How the oscillators output should be combined. **Add:** adds the oscillators together, **Sub:** subtracts one oscillators from the other, **Mult:** multiplies the oscillators
2. **Glide speed:** If legato mode is selected (3), this knob sets how long time it takes for the pitch transition between two notes
3. **Legato:** If MIDI input is legato, no ADSRs will get retriggered when a new note is triggered
4. **Arpeggio switch:** If multiple notes are held, these will be played after one after the other as an arpeggio
5. **Arpeggio speed:** how fast the arpeggio should be played
6. **Main ADSR:** Drag the sliders to alter attack, decay, sustain and release for the output volume
7. **Master volume:** Controls the output volume

5. Filter

8. **Low Cut:** Sets the low cutoff frequency for oscillators with filter enabled. This parameter is also controllable via MIDI (CC 22)
9. **High Cut:** Sets the high cutoff frequency for oscillators with filter enabled. This parameter is also controllable via MIDI (CC 23)
10. **Resonance:** alters the resonance of the low-cut filter. This parameter is also controllable via MIDI (CC 24)
11. **Filter attack:** Sets the time it will take the high-cut filter to reach its destination value (depending on which note is played)



6. Effects

Delay

Activates a ping-pong delay that jumps between left/right channels.

1. Delay on/off switch
2. Delay time
3. Feedback
4. Stereo spread amount
5. Mix between dry (min) and wet (max) signal

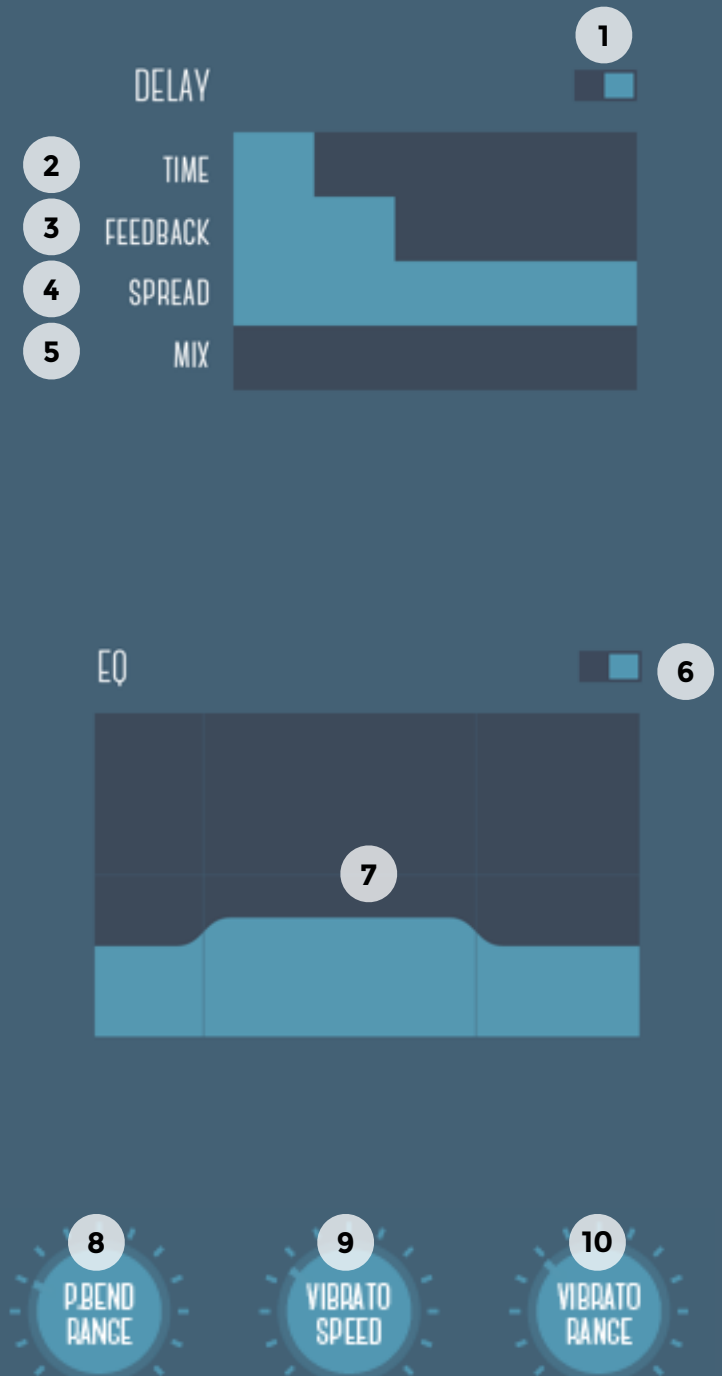
EQ

The three-band EQ is controlled by dragging up/down to alter gain levels and sideways (near the vertical lines) to alter crossover frequencies.

6. EQ on/off switch
7. User interface. Drag and move to alter values

8. Additional settings

8. Range (in semitones) of the maximum pitchbend
9. How fast the vibrato should oscillate
10. Max vibrato that should be generated when vibrato messages are sent from MIDI.



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