

# AdrenaLinn Sync User Guide

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## OVERVIEW

AdrenaLinn Sync creates its unique sounds by modulating the tone, volume and pan of your sound in a variety of rhythmic ways, all in sync to your DAW. These ways include beat-synced versions of classic guitar effects like tremolo, phasing and flanging, to complex looped sequences of filtered, sliced tones or tuned resonances.

The best way to start is to select one of the presets, start your DAW playing, then play sustained or arpeggiated chords on your instrument, letting AdrenaLinn Sync provide the rhythm. Think of how you'd play a guitar differently if using a tremolo effect. For Tuned presets, play chords in the key shown in the preset name, or complimentary chords. After trying a few presets and playing a while, you'll start to get an idea of what type of musical parts work best with AdrenaLinn Sync, and there's a good chance it might inspire a new song or two!

The top half of the panel contains the 5 audio processors. The bottom half contains the two Modulation Sources that provide the movement: 1) a Low Frequency Oscillator (LFO) for simple repeating up & down movements and 2) a Sequencer, providing more complex, 2-measure looped patterns of movement. In the center of the bottom half of the panel is the Modulation Mixer, which controls how much of the LFO and Sequencer signals affect the filter frequency, volume and pan.

## CREATING YOUR OWN SOUNDS

If you're familiar with basic analog synthesizer concepts, the panel controls should be familiar to you. If you're not, the best method is to select a preset that's close then tweak the controls. The most commonly-used controls are high-lighted in **RED** below. For example, use the Filter's FREQUENCY to adjust the brightness of a filtered preset or to change the key of a tuned preset. Or use Filter's DRY/WET to change the balance between the effected and unaffected signal. Try the LFO's SPEED-SYNC or the Sequencer's STEP SIZE to adjust the speed of modulation. Or tweak the MOD MIX knobs to adjust the amount of movement of the filter, volume or pan. For more help, click SUPPORT under the HELP button to access our web site.

When you have the sound you want, saving your DAW project will save all current AdrenaLinn Sync settings. However, if you'd also like to save what you've created to one of AdrenaLinn Sync's 128 presets, click the SAVE button.

AdrenaLinn Sync is based on the AdrenaLinn III Guitar Effects Pedal, which also provides note-triggered filter effects, 40 guitar amp simulations, reverb, tuner, extensive pedalboard control and 200 editable drumbeats. Please visit our site for details, videos and audio demos.



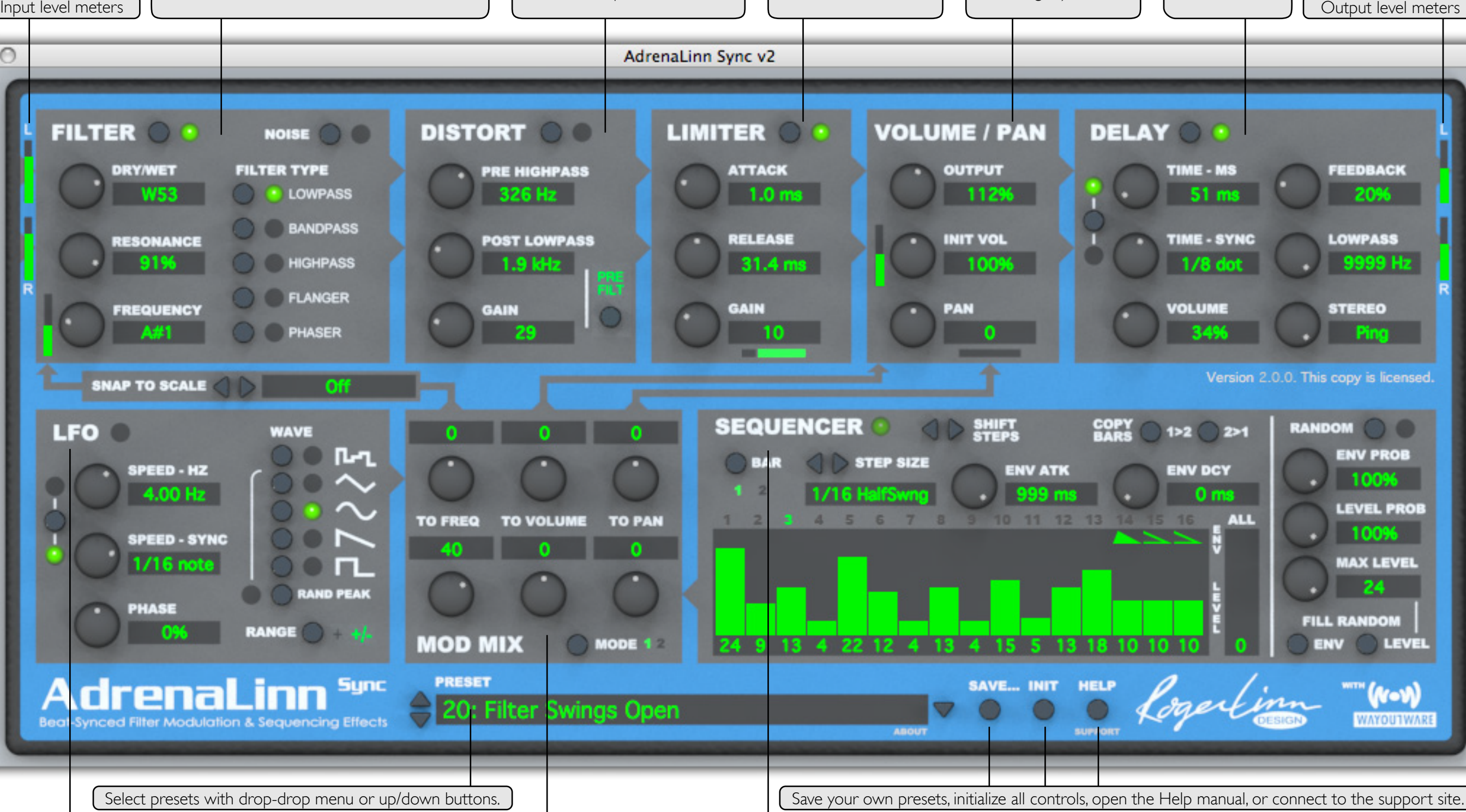
**FILTER**  
**DRY/WET** -- Sets the mix of filtered and normal signals.  
**RESONANCE** -- High values produce a wah pedal effect when Frequency is moved. Very high values cause specific notes to resonate, especially for Flanger.  
**FREQUENCY** -- Sets the cutoff (or resonant) frequency of the filter in musical semitones. This controls the tonal range of the selected filter type, and for tuned resonant presets is used to set the key of the tuned sequence. The meter shows the actual filter frequency (Frequency knob + modulation).  
**NOISE** -- Adds a pink noise signal to the filter input. Useful for synthesizing drums or exciting resonant filters to oscillation.  
**FILTER TYPE** -- Lowpass, Bandpass or Highpass pass tones below, around or above, respectively, the frequency setting. Flanger (also called resonator or comb filter) is the classic guitar effect and at high resonances will emphasize specific musical notes. Phaser is the classic guitar effect and at higher resonances produces interesting dissonant tones.  
**SNAP TO SCALE** -- Quantizes the pitch modulation signal to one of a number of musical scales. Useful, for example, in changing random pitches to scale notes.

**DISTORTION**  
**PRE HIGHPASS** -- A setting of 200 is good for tight bass on guitar. Higher values produce a thinner sound.  
**POST LOWPASS** -- A setting of 2500 is average. Useful range is about 2k to 3k, depending on desired brightness.  
**GAIN** -- Sets the distortion drive, up to 500x. A gain of one permits the use of the Highpass and Lowpass filters without distortion for additional tone-shaping.  
**PRE FILT** -- Places distortion before the filter, similar to the choice of placing a wah pedal before or after a distortion pedal.

**LIMITER**  
Good for evening out the levels of resonant peaks or adding sustain.  
**ATTACK** -- How quickly the limiter lowers volume after a fast-rising signal.  
**DECAY** -- How quickly the volume returns to normal after the signal stops.  
**GAIN** -- Sets the amount of limiting by increasing input level. The meter below shows gain reduction.

**VOLUME/PAN**  
**OUTPUT** -- The overall output volume.  
**INIT VOL** -- Sets the initial volume level for volume modulation. The meter at left shows the actual volume (knob + modulation signal).  
**PAN** -- The output pan position. Any modulation adds or subtracts from this. The meter below shows the actual pan position (knob + modulation signal).

**DELAY**  
**TIME-MS** -- The delay time in milliseconds, from 0 to 20000 ms (20 seconds).  
**TIME-SYNC** -- The delay time in musical note durations, from 8 bars to 1/32 note triplets (maximum 32 seconds of stereo). A popular setting is Dotted 1/8 Notes, which creates a 3-against-2 rhythm.  
**VOLUME** -- The level of the delay signal.  
**FEEDBACK** -- Sets the number of delay repeats, from 0% (no repeats) to 100% (infinite repeats, like a looper).  
**LOWPASS** -- A lowpass filter on the delayed signal, expressed as a cutoff frequency from 0 to 9999 Hz.  
**STEREO** -- Select STEREO (normal stereo delay), SWAP (left in delays to right and vice versa) or PING (ping-pong delay, alternating between left and right sides).



**LFO** -- A Low Frequency Oscillator, used for modulating the filter frequency, volume or pan with periodic waveforms.  
**SPEED-HZ** -- Sets the LFO rate in Hertz from .03 to 10 Hz.  
**SPEED-SYNC** -- Sets the LFO rate in tempo-synced durations from 8 bars to 1/32 note triplets. Use this to adjust the speed of tremolos, flangers and phasers.  
**PHASE** -- Shifts the wave earlier or later in time, in terms of percentage of a single cycle (-50% to +50%).  
**WAVE** -- Sets the LFO's waveform to random, sine, triangle, sawtooth or square.  
**RAND PEAK** -- If on, each cycle of the wave has a random peak amplitude.  
**RANGE** -- The output wave can be either 1) positive only or 2) bipolar.

**MODULATION MIXER** -- Mixes the modulation signals from the LFO and Sequencer, and routes them to control filter frequency, volume and pan.  
**TO FREQ, TO VOLUME, TO PAN** -- Similar to the Tremolo Depth control on a guitar amp, these 6 knobs vary the level of movements of the filter, volume and pan, by adjusting the amount of each of the two input modulation sources (upper and lower rows) to the filter frequency, volume and pan. Range is from -100% (inverted modulation) to +100%. If the lower left To Freq knob is turned fully clockwise ("Notes"), the 24 levels of the sequence's Level sliders produce exactly 24 semitones (2 octaves) in the filter frequency, useful for creating tuned resonant sequences.  
**MODE** -- Selects one of two sets of modulation sources:  
Mode 1 -- (Shown above) The LFO is the source of the upper knobs and the Sequencer (combined Level and Envelope) is the source of the lower knobs.  
Mode 2 -- (Shown below) The Sequencer's Envelope is the source of the upper knobs and its Level is the source of the lower knobs. (The Level & Envelope are separated into 2 sources.)



**SEQUENCER** -- A 32-step sequencer or random level generator, used for modulating the filter frequency, volume or pan. Each sequence step has a level slider (0-24) and above it a switch to determine whether an Envelope Generator fires on that step.  
**BAR** - This selects either bar 1 or 2 of the sequencer for viewing and editing.  
**STEP SIZE** -- Sets the duration of each sequence step: 1/8 Note, 1/8 Triplet, 1/16 Note, 1/16 Half Swing and 1/16 Swing. For sequence & some random presets, use this to adjust the amount of swing or change the pattern between the note values.  
**ENV ATK** -- The attack time of the envelope generator, from 0 to 999 ms.  
**ENV DCY** -- The decay time of the envelope generator, from 0 to 999 ms.  
**The 16 Level Sliders**-- These set the level (0-24) for each sequence step. Below each slider is the numeric value of the slider. The 16 Envelope On/Off switches (above the 16 sliders)-- These switches determine whether the Envelope Generator fires on that step. Clicking in this area selects one of three options:  
OFF (no icon)-- The envelope generator does not fire on this step. When this step plays, the slider's level will be constant throughout the duration of the step.  
ON ( )-- The Envelope Generator fires on this step, rising to the slider's level then falling back to zero, at rates set with the Attack and Decay knobs.  
CARRY ( ) -- If the previous step is set to ON, setting this step to CARRY allows the previous step's attack/decay cycle to continue decaying into this step.  
"ALL" slider and Envelope Switch-- Dragging this slider simultaneously sets all 16 sliders. Clicking the upper Envelope On/Off switch simultaneously sets all 16 Envelope On/Off switches.  
**SHIFT STEPS** -- Clicking these buttons will shift the sequence data one step left or right.  
**COPY BARS** -- Clicking these buttons copies bar 1 of the sequence over bar 2, or bar 2 over bar 1.  
**RANDOM** -- If on, the sequence data is replaced by random values defined by the 3 controls below.  
**ENV PROB** -- Sets the probability (0-100%) that the Envelope Generator will fire for each new step. 100% means the EG will fire on every step; 50% means the EG will randomly fire on approximately 50% of the steps.  
**LEVEL PROB** -- Sets the probability (0-100%) that a new level will be generated for each new step. 100% means each step gets a new, randomly-generated level; 50% means that 50% of new steps get a new level and 50% retain the previous step's level. 0% means the level will never change.  
**MAX LEVEL** -- Sets the range (1-24) for each step's randomly generated level. 24 means that a random level from 0 to 24 will be generated; 12 means a random level from 0 to 12 will be generated.  
**FILL RANDOM (ENV)** --Pressing this button randomly fills the 16 envelope on/off switches in the displayed bar with either on or off states, using the value of ENV PROB.  
**FILL RANDOM (LEVEL)**--Pressing this button randomly fills the 16 envelope level sliders in the displayed bar with random values, using the values of LEVEL PROB and MAX LEVEL.