

Wavekraft User Manual

Version 1.0 • Well Krafted

1. Introduction

Wavekraft is a hybrid wavetable synthesizer by Well Krafted, built for dance music. It ships with 1,216 presets across 79 genres, and you modulate any knob by dragging a source onto it.

What's inside

- 3 wavetable oscillators (A, B, C) with up to 16 unison voices each, 2 warps each, plus a sub oscillator and a noise generator
- 2 filters with 8 types each, run in series or in parallel
- 4 envelopes, 8 LFOs (drawable, tempo-synced), 4 macros and a 32-slot modulation matrix
- 12 reorderable effects, including two experimental ones: Fracture and Resonator
- An arpeggiator and chord memory
- A preset browser with search, favourites, star ratings, previews, A/B compare, undo and a Generate button that invents new presets
- A wavetable editor that turns any WAV, AIFF or FLAC into a wavetable

Formats and requirements

PLATFORM	FORMATS	REQUIREMENTS
macOS	VST3, Audio Unit, AAX, Standalone	macOS 11 Big Sur or later; Apple Silicon and Intel
Windows	VST3, AAX, Standalone	Windows 10 or 11, 64-bit

The AAX version only loads in Pro Tools Developer until it is signed for retail Pro Tools (see Installation).

2. Installation

The installer lets you choose which formats to install, so pick only the ones your DAW uses.

Mac

1. Open **Wavekraft-1.0.0-mac.dmg**.
2. Right-click **Install Wavekraft.pkg** and choose **Open**. The installer isn't signed by Apple, so a normal double-click is blocked the first time. If macOS still refuses, go to **System Settings > Privacy & Security** and click **Open Anyway**.
3. On the **Installation Type** screen, untick anything you don't need.
4. Rescan plug-ins in your DAW, or restart it.

Windows

1. Run **Wavekraft-1.0.0-windows-setup.exe**. If SmartScreen appears, click **More info > Run anyway**.
2. Tick the parts you want on the **Select Components** page.
3. Rescan plug-ins in your DAW.

Where everything goes

PART	MAC	WINDOWS
VST3	/Library/Audio/Plug-Ins/VST3	C:\Program Files\Common Files\VST3
Audio Unit	/Library/Audio/Plug-Ins/Components	—
AAX	/Library/Application Support/Avid/Audio/Plug-Ins	C:\Program Files\Common Files\Avid\Audio\Plug-Ins
Standalone app	/Applications	C:\Program Files\Well Krafted\Wavekraft

PART	MAC	WINDOWS
Your presets	~/Music/Wavekraft/Presets	Music\Wavekraft\Presets

Finding it in your DAW

Wavekraft is listed under the maker name **Well Krafted** as an instrument.

- **Ableton Live:** Plug-ins > VST3 (or Audio Units) > Well Krafted
- **Logic Pro / GarageBand:** Instrument slot > AU Instruments > Well Krafted > Wavekraft
- **FL Studio:** Plugin database > Generators, after running Find more plugins
- **Pro Tools:** Create an Instrument track, then Insert > Instrument > Well Krafted > Wavekraft
- **Bitwig, Cubase, Studio One, Reaper:** in the instrument browser under Well Krafted

Pro Tools note

Pro Tools only loads AAX plug-ins signed through Avid's PACE/iLok program. Until that signing is done, the AAX loads only in **Pro Tools Developer**. The VST3 and AU work normally in every other DAW.

Uninstalling

- **Mac:** run **Uninstall Wavekraft.command** from the disk image. Your own presets are kept.
- **Windows:** Settings > Apps > Wavekraft > Uninstall.

3. Quick start

Load Wavekraft on an instrument track, click the preset name at the top, pick a sound and play.

Your first five minutes

1. Click the **preset name** in the header to open the Preset Library.
2. Pick a genre on the left, then a category such as Bass or Lead.
3. Click the **play button** on any row to hear a preview. Double-click a row to load it and close the library.
4. Use the < > arrows beside the preset name to step through sounds without opening the library.
5. Turn knobs. Double-click any knob to reset it.

The window, top to bottom

AREA	WHAT IT DOES
Header	Logo, preset bar (< > arrows, name, Save, Generate), A/B compare and Copy, Undo/Redo, voice mode, Glide and Master
Tab strip	Five pages: Osc, Mod, FX, Arp, Matrix. On the right: the source strip (L1–L8, E1–E4, M1–M4)
Page area	The controls for the selected tab
Visualizer	Live spectrum and oscilloscope of the output, with the active voice count
Keyboard	Click to play notes without a MIDI controller

Knob basics

- **Drag** up or down to turn a knob.
- **Double-click** to reset it to its default.

- **Right-click** for a menu: Reset to default, plus the modulation amounts and remove options if the knob is modulated.
- **Hover** to see a tooltip with the knob's value and what modulates it.

Header controls

- **A / B:** two versions of the sound. Switch between them to compare an edit with the original. **Copy** copies the current version into the other slot.
- **Undo / Redo:** step back and forward through your edits.
- **Voice mode:** Poly plays chords. Mono plays one note at a time and retriggers. Legato plays one note and slides between notes without retriggering.
- **Glide:** portamento time between notes, 0–2 seconds.
- **Master:** output level, –48 to +6 dB.

4. Oscillators (Osc page)

The Osc page holds three wavetable oscillators, a sub oscillator, a noise generator and both filters. Each oscillator has an on/off switch, a wavetable menu, a 3D display of the table and an **Edit** button.

Wavetables

A wavetable is a stack of single-cycle waveforms called frames. **Position** sweeps through the frames, and modulating it is what makes wavetable sounds move. The built-in tables are Basic Shapes, Harmonic Sweep, Pulse Width, Vowels and Sync Sweep. **User Table** is whatever you import or draw.

Oscillator controls

Knob	Range	What it does
Position	0–100%	Which frame of the wavetable plays
Level	0–100%	Oscillator volume
Pan	L–R	Stereo position
Octave	–4 to +4	Pitch in octaves
Semi	±12 st	Pitch in semitones
Fine	±100 ct	Pitch in cents
Unison	1–16	Number of stacked voices for a thicker sound
Detune	0–100%	How far apart the unison voices are tuned

Knob	Range	What it does
Width	0–100%	Stereo spread of the unison voices
Phase	0–100%	Random start phase. 0% gives a punchy, identical attack on every note

Route sends the oscillator to Filter 1, Filter 2, Both, or Direct (no filter).

Warps

Each oscillator has two warp slots. Pick a warp from the menu and set its amount with the knob beside it.

Warp	Effect
Sync	Hard-sync sweep: the classic tearing lead sound
Bend + / Bend –	Squeezes the wave towards the end or the start of the cycle
PWM	Pulse-width-style stretching of any wave
Mirror	Plays the cycle forwards then backwards
Quantize	Steps the wave into fewer levels, for a lo-fi edge
Fold	Wavefolding: adds bright, metallic harmonics
Asym	Shapes the positive and negative halves differently
FM (A/B/C/Sub/Noise)	Frequency modulation from another source
AM (A/B/C/Sub)	Amplitude modulation from another oscillator
RM (A/B/C/Sub)	Ring modulation: bell and metallic tones

Sub and Noise

- **Sub:** a simple oscillator (Sine, Triangle, Saw or Square) 1–3 octaves below the played note. It has Octave, Level and Pan, plus its own Route.
- **Noise:** White, Pink, Brown or Crackle noise with Level, Pan and Route. Use it for breath, risers and texture.

Importing your own wavetable

- **Drag a WAV onto the wavetable display** to import it straight away.
- Or click **Edit** and use **Import** in the editor. WAV, AIFF and FLAC all work.
- Files from other wavetable synths are detected automatically. Any other sample is analysed for pitch and sliced into frames.

Wavetable editor

Click **Edit** or double-click the display to open it. Draw on the current frame with the mouse. Pick a frame by clicking it in the frame strip, or scroll over the strip to move through frames.

BUTTON	WHAT IT DOES
Import / Export	Load a sample or save the table as a WAV (2048 samples per frame)
Add / Duplicate / Delete	Insert a sine frame, copy this frame, or remove it
Morph Fill	Rebuild the table as a smooth morph from the first frame to the last, with 8 to 256 frames
Normalise	Remove DC offset and bring the peak to full scale
Smooth	Soften the current frame
Reset	Turn the current frame back into a sine
Close	Back to the oscillators

Your edited table is saved inside the preset and the project.

5. Filters

Wavekraft has two filters, at the bottom of the Osc page. Filter 1 is on by default; switch Filter 2 on when you need it.

Filter types

TYPE	SOUND
SVF Low-pass	Clean, smooth low-pass; removes highs
SVF Band-pass	Keeps a band around the cutoff
SVF High-pass	Removes lows; thins out a sound
SVF Notch	Cuts a narrow band around the cutoff
Ladder LP24	Fat 4-pole analogue-style low-pass, steep and warm
Ladder LP12	Gentler 2-pole ladder low-pass
Comb	Short tuned delay: metallic, flanged and plucked tones
Formant	Vowel-like "talking" filter

Filter controls

KNOB	WHAT IT DOES
Cutoff	Filter frequency, 20 Hz – 20 kHz
Reso	Resonance: a peak at the cutoff. High values whistle
Drive	Saturation going into the filter
Key	Key tracking: the cutoff follows the notes you play

KNOB	WHAT IT DOES
Mix	Blend between dry and filtered sound

The display above the knobs shows the filter's response curve as you change it.

Routing

- **Serial:** Filter 1 feeds into Filter 2. Use it for a steeper slope, or a low-pass followed by a formant.
- **Parallel:** the two filters run side by side and are mixed together. Use it to send one oscillator through one filter and another oscillator through the other.

Each oscillator, the sub and the noise has its own **Route** menu (Filter 1, Filter 2, Both or Direct), so you decide what goes where.

6. Modulation (Mod page)

To modulate any knob, drag a source chip onto it. Sources are envelopes, LFOs, macros and performance inputs, and one source can move as many knobs as you like.

Drag to modulate

1. Find the source strip at the right of the tab bar: **L1–L8** (LFOs), **E1–E4** (envelopes), **M1–M4** (macros). It is visible on every page.
2. Drag a chip. A glowing cable follows the mouse.
3. Drop it on any knob. The modulation starts at +35%.
4. To reach a knob on another page, hold the cable over that page's tab for a moment and the page opens.

You can also drag the LFO curve, the envelope display, or the Velo, Note, Wheel, AT and Rand chips on the Mod page.

Seeing what modulates what

- A modulated knob shows a **coloured arc** for the modulation range and a **moving dot** for the live value.
- A **tag inside the knob** names the source, for example L1 or E2. With more than two sources it shows a count, such as L1+2.
- **Hover over a source chip** to highlight every knob it modulates.
- **Hover over a knob** to see a tooltip listing all its sources and amounts.

Changing and removing modulation

- **Drag the tag** inside the knob up or down to set the amount, from –100% to +100%. Negative amounts move the knob the other way.
- **Right-click the knob** for a slider per source, **Remove** for each one, and **Remove all modulation**.

Envelopes

There are four ADSR envelopes. **Env 1** is hard-wired to volume; Env 2–4 are free to modulate anything.

CONTROL	RANGE	WHAT IT DOES
A (Attack)	0–10 s	Time to rise to full level
D (Decay)	1 ms – 10 s	Time to fall to the sustain level
S (Sustain)	0–100%	Level held while the key is down
R (Release)	1 ms – 15 s	Time to fade after the key is released
Curve	0–100%	Shape of the segments, from linear to snappy

You can also drag the handles on the envelope display to shape it.

LFOs

There are eight LFOs. Click an LFO tab to edit it.

CONTROL	WHAT IT DOES
Shape	Sine, Triangle, Saw Up, Saw Down, Square, S&H (random steps) or Custom
Rate	Speed, 0.01–40 Hz
Sync	Locks the rate to your song tempo. The Rate menu then shows note values from 8 Bars to 1/64, including dotted (D) and triplet (T) values
Retrig	Restarts the LFO on every new note. Turn it off for a free-running LFO that drifts across notes
1-Shot	Runs once per note and stops, which turns the LFO into an extra envelope

Drawing custom LFO shapes

Set the shape to **Custom**, then edit the curve:

- **Click** to add a point, and **drag** to move it.
- **Right-click** a point to delete it.
- **Drag the small circles** between points to bend the curve.
- Points snap to a grid. Hold **Alt (Option)** while dragging for free placement.
- Quick-start buttons load a shape to edit: **Ramp, Decay, Tri, Pump** (sidechain-style ducking) and **Steps. Rand** makes a random shape.

Tip: a synced 1/4 Pump shape on the oscillator Level knobs gives a sidechain pump without a compressor.

Macros

The four macro knobs on the Mod page are master controls. Drag **M1-M4** onto several knobs, then one macro moves them all. Presets label their macros with names such as Brightness or Space. Map macros in your DAW for hands-on control.

Performance sources

CHIP	SOURCE
Velo	How hard you hit the key
Note	Which key you play (higher = more)
Wheel	Your controller's mod wheel
AT	Aftertouch (key pressure)
Rand	A new random value on every note

Modulation matrix (Matrix page)

The Matrix page lists all 32 modulation slots, including the ones you made by dragging. Each row has a **Source**, a **Destination** and an **Amount** (–100% to +100%). Double-click an amount to zero it, or click **CLR** to empty the row. Use it to make precise settings or to tidy up.

On effect knobs, only LFOs, macros, the mod wheel and aftertouch have an effect. Envelopes, velocity, note and Rand are per-note sources, so they only work on the

oscillators, filters and other per-voice controls.

7. Effects (FX page)

The FX page has 12 effects. Turn each on with its switch, and drag rows in the **Rack** list to change the order. Sound runs through the list from top to bottom, and effects that are switched off use no CPU.

Distortion, dynamics and tone

EFFECT	CONTROLS	WHAT IT DOES
Distortion	Mode, Drive, Tone, Mix	Six modes: Soft Clip, Hard Clip, Wavefold, Tube, Bitcrush and Rectify. Runs at twice the sample rate to stay clean. Tone is a low-pass after the drive
EQ	Low, Mid Hz, Mid, High	Three bands, each ± 15 dB. Mid Hz sets the mid band's frequency, 100 Hz – 10 kHz
Compressor	Mode, Amount, Time, Gain, Mix	Clean is a smooth single-band compressor. OTT Multiband squashes three bands up and down for the loud, bright EDM sound

Modulation effects

EFFECT	CONTROLS	WHAT IT DOES
Chorus	Rate, Depth, Mix	Thickens and widens with slowly moving delayed copies
Flanger	Rate, Depth, Feedback, Mix	Jet-like sweep. Negative feedback gives a hollower tone
Phaser	Rate, Depth, Feedback, Mix	Sweeping notches for a swirling sound

EFFECT	CONTROLS	WHAT IT DOES
Hyper	Detune, Rate, Dimension, Mix	Super-wide unison-style widener with a dimension stage. Turns a mono lead into a wall of sound
Freq Shifter	Shift, Feedback, Mix	Moves every frequency by a fixed amount, ± 2000 Hz. Small shifts give phasing; big ones give metallic, inharmonic tones. Feedback makes spiralling, barber-pole effects

Space

EFFECT	CONTROLS	WHAT IT DOES
Delay	Division, Time, Feedback, Tone, Mix, Sync, Ping	With Sync on, the Division menu sets the time in note values (1/32 to 1/1, dotted and triplet). With Sync off, Time is 1–2000 ms. Ping bounces the echoes left and right. Tone darkens the repeats
Reverb	Size, Decay, Damp, Pre, Width, Mix	Decay runs 0.2–20 s. Damp sets where the highs roll off. Pre is the pre-delay, 0–200 ms, which keeps the dry sound clear

Experimental effects (marked Exp)

EFFECT	CONTROLS	WHAT IT DOES
Fracture	Grid, Slice, Chance, Reverse, Pitch, Mix	A tempo-synced glitch engine. On each Grid step (1/4, 1/8 or 1/16), it may grab a slice of audio (1/8 to 1/64) and stutter it. Chance sets how often that happens. Reverse and Pitch set how often slices play backwards or shifted in pitch. Locks to your song's bar grid while the DAW plays, and runs at the song tempo when stopped

EFFECT	CONTROLS	WHAT IT DOES
Resonator	Octave, Decay, Bright, Spread, Mix	A bank of resonators tuned to the notes you are holding, shown in its display. It makes any sound, even noise or drums, ring at your chord. Octave picks -1, unison or +1. Decay sets the ring time, Bright the tone, and Spread the stereo width

Modulating effects

Effect knobs accept LFOs, macros, the mod wheel and aftertouch. For example, drag M1 onto Reverb Mix and Delay Feedback to make a single "Space" knob.

8. Arpeggiator and chord memory (Arp page)

The Arp page turns held notes into patterns, and chord memory turns single keys into full chords. Use them together: one finger plays a chord, and the arp plays it as a pattern.

Arpeggiator

Switch the Arpeggiator on and hold some keys. The display shows the notes as they play.

CONTROL	WHAT IT DOES
Mode	Up, Down, Up/Down, Random, As Played (the order you pressed the keys) or Chord (repeats the whole chord rhythmically)
Rate	Note length, synced to your song tempo: 8 Bars to 1/64, dotted and triplet values. Default 1/16
Octaves	Repeats the pattern over 1–4 octaves
Gate	How long each note sounds, 5–100% of the step. Short is plucky, long is legato
Swing	Delays every second step for a shuffled groove, 0–50%
Latch	Keeps playing after you let go. The next chord you play replaces it

The arp follows your DAW's tempo and stays in time with the song position.

Chord memory

Switch Chord Memory on, pick a chord type, and every key you press plays that chord, built on the key.

- **Types:** Major, Minor, Sus2, Sus4, Maj7, Min7, Dom7, Maj9, Min9, Add9, Min11, Power, Octaves and Stacked 5ths.
- **Spread** (0–2) opens the voicing out across more octaves.

Tip: Minor + Chord mode + 1/8 Gate 30% gives an instant house stab rhythm from one finger.

9. Presets

Wavekraft comes with 1,216 presets in 79 dance genres, and you can save your own, rate them, or have Wavekraft invent new ones.

The Preset Library

Click the preset name in the header to open it.

- **Search:** type part of a name to filter the list.
- **Genre list (left):** All Genres or one of the 79 genres, from 90s Rave and Acid to UK Garage and Wave.
- **Category buttons:** Bass, Lead, Pad, Pluck, Keys, Chord, Stab, Arp, Bell, FX, and Favourites.
- **Top Rated:** sorts the list by your star ratings.

On each preset row

CLICK	WHAT HAPPENS
The star at the left	Adds or removes the preset from Favourites
The five small stars	Rates it 1–5. Click the same rating again to clear it
The play button	Loads the preset and plays a short phrase that suits its category
The row	Loads the preset
Double-click the row	Loads it and closes the library

Presets you saved show a **USER** tag. Favourites and ratings are kept in `~/Music/Wavekraft/library.json`, so they work across every DAW.

Stepping through presets

The `<` `>` arrows beside the preset name step through the current list. If you filtered the library to Techno basses, the arrows stay within Techno basses.

Saving a preset

Click **Save**, enter a name, a genre and a category, then press Save. Presets go to ~\Music\Wavekraft\Presets (Music\Wavekraft\Presets on Windows), in a folder per genre. They appear in the library straight away. To share a preset, send the .wcpreset file; your friend drops it in the same folder.

Generate

Click **Generate**, pick a genre, then a role (Any, Bass, Lead, Pad, Pluck, Keys, Chord, Stab, Arp, Bell or FX). Wavekraft builds a brand-new preset in that style and levels it to a sensible volume. **Again** at the top of the menu makes another one with the same settings. Keep the ones you like with Save.

A/B compare and undo

- **A / B** keeps two versions of the sound. Make an edit in B, then flip back to A to compare. **Copy** copies the current slot into the other.
- **Undo / Redo** steps through your edits.

Your DAW project saves the full sound, including user wavetables and custom LFO shapes, so a session reopens exactly as you left it.

10. Tips, troubleshooting and FAQ

Sound design tips

- **Supersaw:** Basic Shapes at Position 67% (saw), Unison 7–9, Detune 30%, then Hyper on.
- **Reese bass:** two saws an octave down, Fine +7 on Osc B, Ladder LP24 at 400 Hz, then L1 at 1/2 on the cutoff.
- **Wobble:** a synced LFO at 1/8 or 1/8 T on filter cutoff, with Distortion after the filter.
- **Movement:** drag a slow LFO (4 Bars) onto wavetable Position for pads that keep evolving.
- **Pluck:** Env 1 with Sustain 0% and Decay 200 ms, plus Env 2 on cutoff with the same shape.
- **Big drops:** Compressor in OTT mode at the end of the rack, then EQ to tame the top.
- **CPU:** unison voices are the most expensive part. Lower Unison on sounds that sit in the background.

Troubleshooting

PROBLEM	FIX
Mac says the installer "can't be opened"	Right-click it and choose Open, or click Open Anyway in System Settings > Privacy & Security
Wavekraft doesn't appear in my DAW	Rescan plug-ins or restart the DAW. Check you installed the format your DAW uses (Logic needs AU, FL Studio and Ableton use VST3, Pro Tools needs AAX)
It's missing from Logic	Run the installer again with Audio Unit ticked, then restart Logic. Logic validates new Audio Units on launch
It doesn't load in Pro Tools	The AAX isn't PACE-signed yet, so it only loads in Pro Tools Developer

PROBLEM	FIX
No sound	Check the Master knob, that Osc A is on, and that Filter 1's cutoff isn't fully closed. In the standalone app, check the audio settings
A knob won't take modulation	Only knobs can be modulated, not switches or menus. On effect knobs, use LFOs, macros, the mod wheel or aftertouch
The arp or Fracture is out of time	Make sure your DAW is sending tempo. Without a host tempo, as in the standalone app, both run at 120 BPM
A wavetable import sounds wrong	Use a sample with a clear pitch, or a file made for wavetable synths. Then use Normalise in the editor

FAQ

- **Can I share presets?** Yes. Send the .wcpreset file; it goes in Music/Wavekraft/Presets.
- **Are my sounds saved with my project?** Yes, everything, including imported wavetables and drawn LFOs.
- **Does Generate repeat itself?** No. Every click makes a new random preset in that genre's style.
- **How many voices can play at once?** It is polyphonic in Poly mode. Each voice can stack up to 16 unison voices per oscillator.
- **How do I remove it?** Run Uninstall Wavekraft.command on Mac, or use Settings > Apps on Windows.