PHIL SPEISER

THE_PATTERN 2

USER MANUAL

How I make drums, in one plugin: my sounds, my kits and my workflow, with every drum tool you reach for working together. Drop in a loop, drag out the whole drum track.

Updated October 10, 2026
The latest version is always at philspeiser.com/manual/the_pattern-2

CONTENTS

1 What It Is

2 Start Here — Your First Ten Minutes

3 The Rack You're Replacing

4 The Magic Is Between the Features

5 Why You'll Love It

6 The Big Idea (read this once)

7 The Interface at a Glance

8 Layouts — four views, one click

9 The Pads

10 THE KICK — a synth kick that can rebuild your kick

11 The Sequencer

12 MAKE SONG — one groove, the whole drum track

13 LOOP → PATTERN

14 BEATBOX

15 The Library

16 GENERATE — the kit generator

17 Master FX

18 Getting Sound Out

19 MIDI Learn

20 The Session

21 Look, Feel and Help

22 How to Use It — Real-World Workflows

23 Pro Tips and Creative Techniques

24 Keyboard Shortcuts and Gestures

What It Is

THE_PATTERN 2 is how I make drums, built into one plugin. I have been making records for more than twenty years, several of them top 10, with hundreds of millions of streams between them. Every kit, every sound and every groove in THE_PATTERN 2 is mine, and so is the workflow behind every move it makes for you.

It is a complete drum studio. A 16-pad sampler with a full channel strip on every pad. A kick synth that can rebuild the kick you drop on it. A step sequencer with parameter locks, conditional trigs and polymeter. A library of release-ready kits, sounds and grooves that also takes in your own sample folders. Loop tools that turn a drum loop into a kit and a pattern. An arranger that turns one groove into a whole song. Drum-bus effects. And a way out to your DAW for all of it: MIDI, audio, stems, or the whole song as one clip.

None of it is guesswork. Every sound is levelled the moment it loads. A brighter EQ never fools you by also being louder. A new kit is measured against the kit it grew from before you hear it. A song opens on a stripped-back intro, rolls the snare into the drop and takes the kick out for the break. On its own, each of those moves looks simple. Together they are the workflow behind my own records.

THE_PATTERN 2 makes those moves for you, every time, and leaves you the decisions that make a track yours.

Three things make it different from the drum machine you already own.

Two moments that change how you start and finish a track

- **LIBRARY rebuilds a loop from your own sounds.** Drop in a drum loop you love. THE_PATTERN 2 hears the hits, rebuilds the loop from the closest sounds in your library, the release-ready CORE sounds and your own folders alike, sets each one to the level it played at, and writes the groove. You keep the feel and lose everything you could never mix: the bass under the kick, the room on every hit, one file where there should be a kit.
- **MAKE SONG turns one groove into a whole song.** Right-click any pattern and the rest of the song is written from it: an intro, a verse, a break and an outro, and in a club track the build into the drop. It arrives laid out as a song with fills, ready to drag into your DAW as one clip.

All in one, and none of it stripped down

Every part of THE_PATTERN 2 holds its own against the tool you would otherwise open for that job.

- **The pads** each hold up to 32 samples with velocity layers and round-robins, play sixteen voices, and run their own seven-stage insert chain: transient shaper, bitcrusher, saturation, filter, four-band EQ, compressor and auto-pan, plus two envelopes and a ducker.
- **THE KICK** on pad 1 is a real kick synth: drawable pitch and level curves, a tuned click, a sampled top layer, sixteen factory kicks, and **MATCH**, which rebuilds a kick sample you drop on it as synth settings you can change.

- **The sequencer** puts velocity, chance, ratchets, micro-timing, pitch, pan and 23 conditional trigs on every step, lets any lane loop at its own length, and shows that polymeter on screen instead of leaving it to your ears.
- **The library** is release-ready: every kit, sound and groove in CORE is mine, and ready to go into a finished track as it is. It plays every kit with its groove before you load it, ranks every sound by how it actually sounds, and files your own sample folders next to the factory content.

One instrument, not a bundle

Because it is one instrument, every part knows what the others are doing. A loop you drop tells MAKE SONG which lane is the kick. The ducker follows the kick that is actually loaded. GENERATE builds around the pads you lock. Your own folders feed the loop rebuild, the similarity search and the generator. And every sound you load arrives levelled, with a swap keeping the pad's mix, so trying another snare never throws the balance. A rack of separate plugins cannot give you that, however good each one is. **The Magic Is Between the Features**, further down, shows every connection.

Start Here — Your First Ten Minutes

If you only read one chapter, make it this one. These eight moments are THE_PATTERN 2 in the order I would show it to you. Each one takes a minute or two, and together they are the whole instrument.

Hear a kit arrive as a song

If a card asks for your content, click **GET CONTENT**: the CORE library downloads once, and every expansion follows it in the background. Open **Kits** in the browser and press play on a few rows. Each kit plays with its own groove through a private preview, without touching your rack. Every sound in it is release-ready: it already sounds finished, so a kit can go straight into a track without an hour of EQ and compression first. Load the one you like, then click through the pattern chips on the strip under the grid. You are not hearing a lonely loop. The factory kits arrive as the parts of a song: the drop or the chorus, an intro, a verse, a break and an outro, named and in order.

Drop in a loop you love

Drag a drum loop onto the sequencer, from a sample pack, your DAW or your desktop. A card opens with the loop drawn across its top and a line for every hit it heard, coloured by drum. Choose **LIBRARY**, give it a moment, then press **HEAR LOOP** and **HEAR RESULT** in turn. That is the loop, rebuilt from sounds in your own library. Press the arrows on the snare's row to hear the next-closest snare, then **APPLY AS NEW KIT** (press it again when it asks **REPLACE KIT?**). The groove now plays on a clean kit of one-shots, and every pad is free to be shaped on its own.

Make it a song

Right-click the pattern chip and choose **Make song from …**. The intro, verse, break and outro are written from your groove, plus the build into the drop in a club track. The song is laid out with fills, and the **CHAIN** panel opens on it. Press play: it runs from the first bar of the intro to the last bar of the outro. **MAKE SONG** has the details.

Put the kick in your key

Click the **SYNTH** chip on pad 1 and drop a kick you almost like onto the editor. **MATCH** rebuilds it with the synth and gives you two answers to compare against the file with **HEAR ORIGINAL** and **HEAR RESULT**. **APPLY** the one you prefer, read the note its tail lands on under **TAIL**, and drag the last pitch point onto the root of your track. Your kick, now in your key, with a length you can change without chopping the tail.

Swap a sound and hear the kit stay mixed

Click the snare pad, open **Sounds** in the browser, filter by snare and double-click a few, one after another. Then drag a snare in from your desktop. Each one lands at the level of the one before, through the same fader, EQ, compression and sends, so the kit keeps its balance while you audition. Every sound is levelled on the way in, from the library, your own folders or anywhere on your disk. It feels like the kit mixes itself. **Levelling**, in The Pads, explains how.

Drag the whole song into your DAW

With CHAIN on, drag the **AUDIO** handle at the right of the controls strip into an audio track: the whole song, rendered as one file. **MIDI** gives you the same song as notes to edit, and **STEMS** gives you one file per lane.

Roll a new kit around your kick

Click **LOCK** on pad 1, open **GENERATE** from the browser toolbar and pick a genre. A new kit arrives, grown from one of the library's kits, with its own groove and its own song parts, and your kick stays exactly where it is. **REGENERATE KIT** rolls again. One Cmd/Ctrl+Z brings back the song you made.

Give it your own sounds

Drop your sample folder onto the browser. **MY SOUNDS** listens to every file, leaves out loops and anything that is not a drum hit (and tells you why), and files the rest by drum and tag, next to mine. Your files are never moved. From then on, LIBRARY, Find similar sounds and GENERATE reach into your folders too, so go back to moment 2 and drop the same loop again.

That is the whole instrument in ten minutes: a loop in, a kit of your own sounds, a song, a kick in your key and a finished file in your DAW. Got a microphone? With my free companion app **THE_BRIDGE** running, **BEATBOX** turns the kick, snare and hat noises you make into pad hits, and REC prints them to the grid.

The rest of this manual is how each part works.

The Rack You're Replacing

What THE_PATTERN 2 does	What you would otherwise open
16-pad drum sampler	A drum rack with a sampler instance per pad
Layers, velocity splits, round-robins	A dedicated multisample instrument, mapped by hand
Per-pad insert chain	Transient shaper, bitcrusher, saturator, filter, EQ, compressor and auto-pan — seven plugins, per pad
Per-pad ducker	A sidechain compressor plus the routing to feed it
Slicing and beat-sync stretch	A slicer, and a separate time-stretch render
THE KICK and MATCH	A dedicated kick synth on its own channel, and an afternoon of trying to rebuild the reference kick by ear
Step sequencer with parameter locks	A pile of MIDI clips and automation lanes
Conditional trigs and polymeter	A hardware groovebox, and its manual
The release-ready library and browser	Sample packs you still have to process before they sound finished, a sample manager, and an afternoon of auditioning
MY SOUNDS	Tagging twenty gigabytes of samples by hand, which nobody has ever finished
Find similar sounds and the SOUND MAP	Auditioning folder after folder by ear, or a separate sample-map app that knows nothing about the kit you have loaded
LOOP → PATTERN	A transcription pass by ear, then programming what you heard
LIBRARY	An afternoon auditioning your library for the kick, the snare and the hats that sound like the loop
MAKE SONG and ARRANGE	Copying the loop across sixty-four bars and muting lanes until it sounds like a song
Kit generation	A preset folder, and luck
Master FX	Tone EQ, bus compressor, drive, stereo width and a limiter on your drum bus
Drag-out to MIDI, loop WAV, stems or the whole song	Bouncing, exporting, re-importing

The honest version of the pitch is not that it is cheaper than all of that. It is what happens between the rows.

The Magic Is Between the Features

Every tool in that right-hand column does its job alone. None of them knows the others exist, so the work between them is yours: export, import, route, audition again, start over.

THE_PATTERN 2 is one instrument, so every part knows what the others are doing. That is the part I care about most, and it is the one thing a rack of separate plugins cannot give you, however good each one is.

- **A loop finds its sounds in your library.** LOOP → PATTERN's LIBRARY result hears each drum in the loop and hands its pad the closest sound in your library, your own MY SOUNDS folders included, at the level it played in the loop.
- **A loop tells the song what its drums are.** LOOP → PATTERN hears which hit is the kick and which is the snare, and MAKE SONG uses that to write the verse, the build and the break from it.
- **One groove becomes the song, and the song goes straight to your DAW.** With CHAIN on, the MIDI, AUDIO and STEMS handles export the whole song as one clip.
- **The ducker knows your kick.** A pad's DUCK follows another pad's real level envelope. Swap the kick and the pump is still right, with no sidechain to re-route.
- **GENERATE knows what you are keeping.** Lock the kick you just rebuilt with MATCH, and every kit GENERATE rolls keeps it and builds the rest around it.
- **Your folders feed everything.** Once MY SOUNDS has listened to a folder, its sounds turn up in LIBRARY, in Find similar sounds, on the SOUND MAP and in GENERATE, exactly like mine.
- **Every sound arrives levelled.** Each sample is levelled to the same reference as it loads, whether it comes from the library, your MY SOUNDS folders or a drag from your desktop, and a new sound on a pad keeps that pad's fader, tuning, pan, inserts, envelope, sends and choke. Swap the snare ten times and the kit keeps its balance. EQ and filter moves are loudness-compensated too, and GENERATE and LIBRARY go one step further: every new sound is matched to the level of the sound it replaces, or of the drum it rebuilds in the loop.
- **The map knows your kit.** Open the SOUND MAP and your loaded pads are marked on it. Two markers on top of each other are two pads doing the same job. Right-click one pad, Find similar sounds, take a neighbour from a clear part of the cloud, and nothing else in the kit changes.
- **A lane travels whole.** Take the shaker from another kit and it arrives as it was written there: its sound design, its groove in every part of the song, its own settings. A part with the same name gets its own groove, and you hear it playing in your groove before you take it.
- **Your voice goes straight to the grid.** With my free companion app THE_BRIDGE running, BEATBOX and REC print what you make into the mic as a pattern.

The whole trip, from a loop you liked to a finished drum arrangement in your DAW, happens in one window. **Start Here**, above, takes you through it in ten minutes, and the workflow **From a loop to a song, in one window** further down walks through it step by step.

Why You'll Love It

- **Rebuild a loop from your own sounds.** LIBRARY listens to every drum in the loop, finds the sounds in your library that recreate it best, and builds a new kit out of them, levelled to the loop, with the groove in pattern A. Don't like the snare? Step to the next-closest one right on the card.
- **One groove, a whole song.** MAKE SONG writes the intro, verse, break and outro (and the build, in a club track) from any pattern -- a loop you dropped, a groove you programmed -- and lays the song out, fills included. The factory kits arrive as songs, and GENERATE keeps them that way.
- **Borrow one lane from any kit.** Open a kit's lanes, hear its shaker play in your groove, in time and through your own master, and drag it in. The sound, its whole sound design and its groove in every part come along. Copy and paste a lane works the same way, between kits, instances and projects.
- **Drop a kick, get it back as a synth.** MATCH listens to a kick sample and rebuilds it with the kick synth: pitch drop, level curve, harmonics, drive and click. Every part is a point you can drag. Land its tail on your key, shorten it cleanly, or keep the file's own click on top.
- **Every drum tool, one window.** Sampler, kick synth, sequencer, library, loop tools, arranger, drum-bus effects and export, working together. Nothing to export, import or re-route between them.
- **It keeps itself mixed.** Every sound arrives levelled as it loads, and a swap keeps the pad's whole mix, so you can audition twenty snares without touching a fader. EQ and filter moves are loudness-compensated, so a brighter snare is not also a louder one. It feels like the kit mixes itself.
- **Made by me, release-ready.** Every kit, sound and groove in CORE is mine and ready to go into a finished track as it is, and every move the engine makes comes from the workflow behind my own records. You audition for taste, not for which sample survives an hour of processing.
- **A beat in the first minute.** Load a kit and the grooves come with it. Press GENERATE and you get a finished kit plus its pattern. Drop a loop and the pattern writes itself. Three different ways in, none of them an empty grid.
- **Drop a loop, get a pattern.** The tempo, the bars, the hits and what kind of drum each one is, worked out in moments, on your computer.
- **CHOP.** The same loop cut at its own onsets across empty pads, each piece replaying at the step it came from. Sliced-loop playback that arrives as a playable kit and a pattern, not as one baked file.
- **Steps that carry more than a hit.** Velocity, probability, ratchets up to 8, micro-timing, per-step pitch and pan, and 23 conditional trigs — every one of them edited by dragging on the note itself.
- **Polymeter that you can see.** Any lane can loop shorter than the pattern. The rest of the lane is tiled with dimmed ghosts of the loop, so a three-against-four hat pattern reads on screen instead of only in your ears.
- **Find similar sounds.** Right-click a pad: the whole library ranked by how much it actually sounds like that sound. Not by name, not by folder — by 21 measured perceptual dimensions.
- **The SOUND MAP.** Your entire library as one cloud, families clustering on their own, your loaded kit marked on it. Flip it to **3D** and the cloud unfolds into three dimensions. Two pads sitting on top of each other on the map are two pads doing the same job.
- **Generation that sounds curated.** One of the library's kits as the blueprint, its kick, snare and clap kept exactly as written, its sounds swapped for close neighbours at the level of the sounds they

replace. Several candidate kits are measured and the closest to the original's character wins — before you hear it.

- **MY SOUNDS.** Drop your own sample folder on the browser and it is taken apart: loops and non-drum material left out with the reason on them, every file judged a drum hit or not by listening rather than by its name, tags inherited from the sounds they most resemble. Your files never move. Your sounds then turn up in LIBRARY, Find similar, on the SOUND MAP and in GENERATE, exactly like factory content.
- **A full strip on every pad.** Transient shaper, crusher, saturation, filter, four-band EQ, compressor, auto-pan, AHDSR plus pitch envelope, and a ducker driven by any other pad's actual amplitude envelope.
- **It listens on your computer.** Loop analysis, LIBRARY, MATCH and MY SOUNDS all run on your machine. Nothing you drop in is uploaded.
- **Beat it in with your mouth.** With THE_BRIDGE, my free companion app, running, BEATBOX turns kick, snare, hat, clap and open-hat noises into pad hits — and the sequencer's REC prints them to the grid.
- **Get it out four ways.** Drag MIDI to your DAW, drag a seamless loop WAV with its tails wrapped, drag one stem per lane, or, with CHAIN on, drag the whole song as one clip. Every file is named after the kit and the pattern.
- **It plays well with your DAW.** 121 automatable parameters, MIDI output of the pattern, eight aux outs, full session recall including the samples you dropped in from your desktop.
- **Multilingual tooltips (EN/DE/FR/ES/IT), full undo across everything, UI zoom, in-plugin docs, and an AI assistant that can see your pattern (it needs an internet connection).**

The Big Idea (read this once)

Three words explain the whole instrument.

THE RACK — sixteen pads. A pad is a sound: up to 32 sample slots with velocity and round-robin mapping, a seven-stage insert chain, two envelopes, a ducker, sends, choke and routing. Click a pad to select it; the editors open under the grid. Everything that makes a drum sound like that drum lives on the pad.

THE GRID — sixteen patterns, up to sixteen lanes, up to sixteen bars each in 4/4, on a fixed 1/192 internal timebase. The grid division you see is a view, not a resolution: change it and nothing moves. Every step can carry velocity, chance, ratchet, micro-timing, pitch, pan and a conditional trig. Lanes can loop at their own lengths. Patterns can be chained.

THE LIBRARY — kits, sounds and patterns, indexed, filed by role and tag, favourited, auditioned and searched inside the plugin. It is also the thing generation draws from, the thing "find similar" ranks, and the thing the SOUND MAP draws. Your own folders and your own saves join it as first-class content.

Everything else in this manual is detail on top of those three words.

The Interface at a Glance

One window, four stacked sections, each collapsible by its header:

- **Header row** — logo, the tooltip readout (hover anything and it explains itself), the update banner when there is one, undo and redo, the AI assistant, the documentation viewer, settings and master bypass. The corner grip at the bottom right zooms the whole UI from 0.5x to 3x.
- **PADS** — the horizontally scrollable row of 16 pad cells, each a waveform tile over a mix strip. Click a pad to trigger and select it; the pad editors open in this same section.
- **MASTER FX** — eight module cards: REVERB and DELAY as sends, then TONE, COMP, DRIVE, WIDTH and LIMITER in chain order, with the OUTPUT column pinned on the right. Ships collapsed.
- **LIBRARY** — the browser: Sounds, Patterns and Kits, with the type filter, tag filter, search and source chips. The generate panel, the expansion store and the SOUND MAP open as full-panel overlays here.
- **SEQUENCER** — the pattern grid with its lane headers, the pager, and the controls strip underneath.

Drag any divider to re-balance the sections. Click a header to collapse one. The whole arrangement is saved with your session.

Layouts — four views, one click

A preset bar above the sections switches the whole window between four working layouts:

- **MAIN** — everything visible, the library on Kits. The default.
- **SEQUENCER** — pads collapsed, the grid given most of the window, the library on Patterns. For writing.
- **MIX** — the library and sequencer folded away, pads and Master FX open. For sound design and balance.
- **CLOUD** — the pads squeezed, the library open on Sounds with the SOUND MAP up. For finding sounds.

Switching a layout never changes a sound or a note. It only moves the furniture.

The Pads

The pad tile

Every pad is a waveform tile over a mix strip. The tile shows the sound's actual waveform, drawn peak-plus-RMS, tinted with that pad's identity hue — the same hue its lane wears in the sequencer, so pad 3 and lane 3 always read as the same instrument. Underneath: **VOL**, **PAN**, **PITCH**, **CHOKE**, **REV** and **DLY**.

The tile also tells you the truth about its sound:

- **MISSING SAMPLE** in warm red when the file cannot be found — with **Locate missing sample...** in the right-click menu to point it at the new location.
- A small gold **EXT** tag when the sample lives outside the library — a Finder drop, or a file from one of your own folders. It travels inside the session, not in the library.
- The piece number when the pad holds one slice of a chopped loop, so "disco115 3" reads as the third piece of that loop rather than a mystery.

The chips on the tile itself:

- **SOLO** — an audio-level solo, so you can hear one pad against the pattern without muting seven lanes.
- **MUTE** — silences the pad. It is the same switch as the sequencer's **M** on that pad's lane: mute either one and both show it.
- **LOCK** — the kit-load lock. A locked pad keeps its sound through every kit load, every generation and every reroll. This one chip is what turns GENERATE from a slot machine into a tool.
- **SYNTH**, on pad 1 only (the sine glyph) — turns the pad into the synthesised kick and opens its editor. After that it opens and closes the editor; the editor's ON / OFF pill hands the pad back to its sample.
- **EDIT** — opens the pad's sample editor (the KICK editor on a synth pad).

Under the mix strip sit ten **effect lanes** — **EQ**, **ENV**, **DRV**, **FLT**, **TRS**, **CRS**, **PIT**, **CMP**, **PAN** and **DUCK**. Each one is a small picture of what that module is doing to the pad: the EQ curve, the envelope's contour, the pump the ducker draws. Click a lane and that editor opens. Hover one and the tooltip says what its letters stand for.

When you drag the pad section short, the tiles go **compact**: the mix strip and the effect lanes step aside so the waveform stays readable. Drag the section taller and they come back.

Loading sounds onto a pad

- **Drag audio from anywhere** — Finder, your DAW's browser, the desktop — straight onto a pad.
- **Alt-drop** to add the file as a layer instead of replacing the sound.
- **Drag a sound from the library** onto any pad.
- **Double-click a sound in the browser** to load it into the selected pad. A single click only plays it, so you can audition freely without losing what is on the pad.

- **Right-click a pad** for the full menu.

Every sound is levelled as it loads, so a kit you assemble yourself out of sounds from five different packs arrives roughly balanced instead of needing ten minutes of gain-staging before you can hear whether it works. And a new sound on a pad keeps the pad's mix. **Levelling**, next, explains both.

Levelling — swap any sound, the mix holds

Auditioning should be about taste, not gain-staging, so THE_PATTERN 2 does the levelling at every step.

- **Every sound is levelled as it loads.** Wherever it comes from (the library, your MY SOUNDS folders or a drag from your desktop), its peak is set to a -12 dBFS reference on the way in. Your file is never changed, and a very quiet file is lifted by 24 dB at most. Every layer of a multisample is levelled on its own, and the layer volume offsets sit on top.
- **A swap keeps the pad's mix.** Load a new sound onto a pad and its fader, tuning, pan, inserts, envelope, sends, choke, ducker and mute stay exactly as they were. Only what belonged to the old waveform starts fresh: its start and end, loop points, reverse, slicing and sync. A stack of layers collapses to the new sound; Alt-drop when you want to add a layer instead.
- **EQ and filter moves keep their level.** Every move on a pad's EQ or filter is loudness-compensated against the sound's own measured spectrum, so a brighter snare is not also a louder one, and your ears judge the tone, not the volume. With both switched off, the compensation is exactly neutral.
- **The compressor gives back what it takes.** The pad compressor's auto make-up is calibrated to the same -12 dBFS reference, so squashing a hit does not drop it out of the mix.
- **New kits arrive balanced.** A kit load brings every pad's mix as the kit was saved. GENERATE matches each new sound to the level of the sound it replaces, and LIBRARY sets each pad to the level its drum played in the loop.

Levelling works on the peak of each sound, so it keeps the balance you set rather than deciding it for you: a long 808 and a tight kick at the same peak still carry different weight. Set the balance once with VOL, and every swap after that keeps it. Audition twenty snares on the snare pad and the kit stays mixed the whole time. It feels like the kit mixes itself.

The mix strip and the pad menu

Every pad carries its own mixer: volume from -60 to +12 dB, pan, pitch in semitones (with the detected note name shown, so you can tune a kick to the track), reverb send, delay send, choke group and output bus.

The right-click menu is grouped by job:

- **SOUND** — Find similar sounds, Build multisample from folder, Save to library, Show in Finder. **Save to library** saves whatever the pad actually is: a stacked pad goes in as a multisample with every layer and the map intact, a single sample from outside the library is adopted as a sound.
- **PLAYING** — Velocity sensitive (off means every hit fires at full level), Polyphonic (let voices ring instead of the drum-standard cut-self), Choke group (every group is listed with the pads already in it and which way they cut, plus the pad's direction), Cut fade (how fast the pad dies when it is cut),

and Output (Main, Kick on Out 1, or Out 2 to 8 — plus "Also keep in main mix" when you want the aux as a tap rather than a move).

- **EDIT** — Slice, Loop → pattern, Randomize sound design, Copy lane, Paste lane, Paste only.
- **Clear sample** and **Delete lane**, on their own at the bottom.
- **ALL PADS** — Collect loose samples into the library, which appears when any pad holds a file from outside the library.

Choke groups work the way hardware does: pads sharing a group cut each other off — whichever pad of the group hits, the others stop. Open hat on the same group as closed hat, and the hat behaves. Set the group from the pad's right-click menu, where each group is listed with the pads already in it, or from **CHOKE** on the mix strip.

A group cuts both ways until you say otherwise. Under **THIS PAD** in the same menu, a pad can **only cut** (the group never silences it) or **only get cut** (it never silences the group). Set the kick to only cut and the 808 on its group stops for every kick, while the 808 never touches the kick. Set the open hat to only get cut and the closed and pedal hats close it, while an open hat never chokes a closed one. The group list reads each mate's direction back to you: *cuts 3 OH; cut by 4 PH*.

Cut fade, in the same right-click menu, is how fast a pad dies when it is cut: by its choke group, or by its own next hit when it is not Polyphonic. 5 ms is the tight hardware cut and the default. Around 60 ms is a hat closing rather than switching off, and 250 ms is a hand grabbing a cymbal. The fade belongs to the pad that gets cut, so the open hat closes at its own pace whichever pad closed it. Kits you save keep the group, the direction and the fade. Every pad in a group wears a **CHOKE** badge with the group's number; hover one and its group-mates light up with a dashed ring; and when a pad gets cut, its badge flashes red for a moment — you watch the closed hat stop the open one.

Copy lane and Paste lane move the whole lane: the pad's entire sound design — every insert, both envelopes, the ducker, the layers and their controls — and its groove in every part. **Paste only** takes just the sound or just the groove. **Delete lane** removes the sound and the groove together; **Clear sample** empties the pad and leaves the groove. Both are explained under **Copy, paste and delete a lane** in the Sequencer chapter.

Randomize sound design re-rolls the insert chain for a happy accident and keeps the sample and the routing. It is one undo step, so try it twice.

The twelve pad editors

Select a pad and the editor tabs appear: **SAMPLE** (or **KICK** on a synth pad), **SLICE**, **EQ**, **ENV**, **DRV**, **FLT**, **TRS**, **CRS**, **PIT**, **CMP**, **PAN** and **DUCK**. The current tab sits raised in the tray, and any module that is switched on wears a lit dot and a hue underline, so you can read a pad's whole state from the tab strip.

Every editor closes with Esc. Every slider takes a vertical drag, Shift for fine, double-click to reset and right-click to type a value. Type it the way it reads: "1.52k", "50%", "+30c" and "1.2 s" all land where you expect. A control with a handful of choices (a filter type, a choke group, a shape) opens its list when you click it.

SAMPLE — the editor you will live in

The waveform draws as one peak path and one RMS path filled with a gradient that carries three brightness levels: what lies outside the pad's region, what lies outside the selected layer's trim, and

what actually plays. A comet tail trails the playhead, and the playhead itself lives in the ruler with the start and end flags.

- **Zoom** with the wheel, the overview strip, the 1x to 8x chips, or the + / - / 0 keys.
- **START and END flags** in the ruler carry their positions in milliseconds and snap to the attack.
- **Display gain** lifts a quiet sample to readable height without touching its level, with the dB guides labelled in true dBFS.
- **REVERSE** re-prints the sample backwards, padded so it lands on the next musical division at the host tempo.
- **LOOP** adds an independent loop start and end inside the trim — the steel **A** and **B** markers on the wave, or type a time into the LOOP A / LOOP B cells. The seam is crossfaded (up to 10 ms), so a loop point that does not sit on a zero crossing still does not click. The markers belong to the audio, not to the buffer: with REVERSE on they mirror with the sample and stay on the same sound, even when a tempo change re-prints the reverse with different padding. Switching LOOP on while a hit is still ringing leaves that hit alone — only hits that start after it loop.
- **SYNC** stretches the pad's audio to a chosen length at the host tempo, pitch-preserving (WSOLA). Switching it on reads the loop's own bar count; **LENGTH** beside it then sets any length from a 1/16 note to 64 bars — click - or +, or scroll over it — so a one-shot can be fitted to a quarter note as easily as a break to four bars. If the pad's lane is empty, SYNC also writes a hit at the start of every loop length, so the loop plays the moment you press play. The stretch runs on a background worker; the audio thread only watches for tempo drift.
- **CUT AT END** silences the pad the moment the pattern loops and when playback stops, so a long ambience or riser never rings past the pattern. It is the same switch as **Cut sound at pattern end** in the lane menu (see the Sequencer).

Click the waveform to hear the pad — the higher you click, the harder the hit. It is the quickest way to check a velocity-layered pad without reaching for a controller. In the ruler, the START and END flags snap to the attack; hold **SHIFT** to place them freely, and double-click the ruler to see the whole sample.

FOLLOW makes the waveform show the layer that just played, so on a round-robin pad you watch the variation you are hearing. Click a layer's chip to pin that one instead, which turns FOLLOW off.

Layers: stack, velocity, round-robin

A pad holds up to **32 sample slots**. The LAYERS strip selects which slot the waveform and the controls refer to; a dot on a chip means that layer carries its own offsets. The **+** at the end of the strip adds another sample (Alt-dropping a file or a library sound on the pad does the same), and when there are more layers than chips, the overflow chip opens the MAP with every slot in view.

Three layer modes fill the per-slot fields for you:

- **Stack** — all layers play together. Kick plus click, snare plus noise.
- **Velocity** — the slots split the velocity range, slot 1 softest. **Velocity crossfade** softens the boundaries so a hit near a split triggers both neighbours with complementary gains instead of a hard step.
- **Round-robin** — the slots rotate per hit. **Humanize** adds anti-repeat selection plus small pitch and level jitter, so recorded round-robins stop sounding machine-gunned.

The modes are presets over a real per-slot map. The moment you author the map yourself in the MAP view, the presets stop overwriting it.

Independent layer controls — every one an offset

Each slot carries its own controls, and **every one is an offset on the pad's control of the same name**. Pad at -3 dB plus layer at +2 dB is -1 dB. Every default is exactly neutral, so a layer you have not touched sounds exactly like the pad.

Per-layer control	Range	Neutral	How it composes
Volume	plus/minus 24 dB	0 dB	added to the pad fader, before the inserts — so a boosted layer drives the pad's drive and compressor harder
Polarity	on / off	off	a sign flip, folded into the same gain
Pitch	plus/minus 24 semitones (Shift-drag for cents)	0 st	summed with the pad pitch and any per-step pitch lock
Pan	left to right	centre	summed with the pad pan
Trim in / out	inside the pad's region	full	nested in the pad region, so a layer can never play outside it
Nudge	0 to 50 ms	0 ms	plays this layer late; to make one early, nudge the others
Envelope	AHD plus sustain and release	off	multiplied with the pad's envelope; either stage can end the voice

Slicing, reverse, beat-sync stretch and the insert chain stay per pad — all layers sum into one buffer, then the pad's inserts run once.

A layer's own envelope is off until you want it: **right-click the envelope** on the layer's envelope page (**E**) to switch it on or off. The gold curve is the layer, the dim violet curve is the pad's ENV, and because the two multiply, the filled area is what you actually hear.

Right-click a layer chip to replace or clear it, reset that layer's offsets, or **apply its offsets to every layer** — the difference between a chore and a click on a 24-slot multisample.

Keys in the sample editor: **[** and **]** or **1** to **9** select a layer, **E** flips to the layer's envelope page, **M** opens the map, **A** opens ALIGN, **Esc** unwinds one level at a time.

The MAP — velocity against round-robin

MAP shows the pad's slots as a grid: velocity up the side, round-robin groups across. Drag a zone's edges to change its velocity window, drag it sideways to move it between round-robin groups, and see the crossfade bands drawn between neighbours. The last hit is marked on the grid, so you can watch which zone your playing is actually reaching.

This is where a multisample stops being a list of files and becomes a map you can read.

ALIGN — layers in time

ALIGN stacks every layer from its trigger point so you can see whether the click sits in front of the body or behind it. Drag to nudge, **INV** flips polarity. Two layers fighting each other at the attack is the most common reason a stacked kick sounds smaller than either of its parts, and this is the view that shows it.

Build multisample from folder

Point it at a folder of hits and it builds the velocity multisample for you — it reads SOFT, MID and HARD style naming, fills the slots and maps the windows. A humanised multisampled snare in one action.

Save the pad as a multisample

The **save icon** in the sample editor header, beside the pad's name, writes the whole pad into your library as one sound: every layer, the velocity x round-robin map, all the layer offsets and the pad's shaping. **Save to library** in the pad menu does exactly the same thing once a pad has more than one layer, so it does not matter which one you reach for.

Name it, pick its type and its tags in the same card every other save uses. Any layer that came from outside the library is copied in on the way, so the multisample carries its own samples and survives the source folder moving or the session travelling to another machine.

Drag it back onto any pad and the whole stack returns. What does not come back is the pad's performance state — solo, mute, lock, trigger note, output bus and the ducker's trigger source belong to the pad you drop it on, not to the sound. A library sound that arrived soloing, or ducking from whatever sits on some other pad, would be a booby trap.

SLICE — markers, sensitivity, stretch

SLICE detects transients and cuts the pad into up to 64 slices. **SENS** changes how many it finds, with the slice count updating live while you drag. Markers can be added, moved and deleted by hand, every edit has its own undo step, and DETECT, SENS, GRID and adding a marker all switch slicing on for you.

Two playback modes:

- **Note-mapped** — the pad's trigger note plays slice 1, the next note slice 2, and so on. A sliced break laid across the keyboard.
- **Sequential** — each hit advances to the next slice. Drop it on a lane, fill the lane, and the break plays back in order.

In note mode the footer shows the note range the slices occupy and warns about clashes with other pads.

EDIT CUTS — the chop editor

Behind **EDIT CUTS** is a full marker editor, the same one CHOP uses when it asks you to correct where a loop was cut.

- **Hear it.** Click a piece to play it. **PLAY** (or Space) plays the whole loop from its first cut with a playhead. The arrow keys step from piece to piece and play each one.

- **Cut it.** Double-click the waveform to add a cut, double-click a cut to remove it, or select it and press Delete. Drag a cut to move it: it snaps to the nearest transient or grid line, and always to a zero crossing, so no piece starts with a click. Hold **Cmd/Ctrl** to place it freely. With a cut selected, the arrow keys nudge it one grid step (Shift: 1 ms).
- **SNAP** decides where a dragged or added cut lands — **TRANSIENT**, **GRID** or **OFF**. **GRID** sets the step for grid snapping, for the arrow-key nudge and for EVEN.
- **EVEN** puts a cut on every grid step (up to one per pad): the classic straight chop. **RESET** goes back to the cuts the analysis found.
- **See it.** The overview strip shows the whole loop, with a box around what the main view shows: drag the box to move, drag its edges to zoom. Drag down on the ruler to zoom in, up to zoom out, sideways to scroll. Cmd/Ctrl+wheel zooms, the wheel scrolls, **FIT** (F) shows everything, and **Z** zooms to the selected piece — down to single samples.
- **Undo** has its own history inside the editor (Cmd/Ctrl+Z, Cmd/Ctrl+Shift+Z), and nothing reaches your pads until you press APPLY on the card. **DONE** takes you back to the card with your cuts.

KICK — the synth pad

Pad 1 can be a synthesised kick instead of a sample, and **MATCH** rebuilds a kick file you drop on it as that synth. It has a whole chapter of its own: see **THE KICK** below.

The insert chain — seven stages, fixed order

Every pad runs the same chain. TRS, CRS, DRV, FLT, CMP and PAN switch in and out over a 12 ms ramp, so switching one never clicks:

1. **TRS — Transient shaper.** Attack and sustain gain, plus and minus 24 dB each. The fastest way to give a sampled snare more crack or take the room out of it. The view is your pad's own hit, run through the shaper's own detector: the thin line is the hit as it was, the fill is the hit as you will hear it, and the **ATTACK** zone is marked where the detector actually finds it. Drag **A** or **S** up and down — fill past the line is lifted, fill inside it is pulled back. Double-click a handle to put it back to 0 dB.
2. **CRS — Bitcrusher and lo-fi.** 1 to 16 bits, 1x to 50x downsampling, dry/wet mix.
3. **DRV — Saturation.** Up to 36 dB of normalised drive into tanh, a post low-pass tone control from 200 Hz to 20 kHz, mix and output trim. It runs 2x oversampled by default, which is light on CPU. The small **HQ** switch next to ON moves it to 4x oversampling with anti-aliasing: a hat or snare driven hard keeps clean highs instead of turning into fizz, at a higher CPU cost. The curve is the same in both modes, and switching never clicks. A pad costs nothing between its hits.
4. **FLT — Resonant filter.** Low-pass, high-pass or band-pass, cutoff to 20 kHz, resonance from 0.3 to 12. Cutoff is one of the automatable parameters.
5. **EQ — Four bands.** A low cut at 30 Hz, bells at 250 Hz and 2.5 kHz, high shelf at 9 kHz; the outer bands re-type to shelf, peak or cut from their chip or a right-click. Drag a band for frequency and gain, the wheel sets its width, double-click puts it back to 0 dB.
6. **CMP — Compressor.** Threshold, continuous ratio from 1 to 20, attack and release, auto-makeup calibrated to -12 dBFS, parallel mix and a gain-reduction meter.
7. **PAN — Auto-pan.** A tempo-synced LFO — sine, triangle or square — locked to the beat while the transport runs.

Plus, on every pad:

- **ENV — AHD(S)R.** Attack 0 to 500 ms, hold to 2 s, decay to 8 s, sustain level, release to 8 s. **SYNC**, the first cell of the bottom row, locks hold, decay and release to note lengths from 1/64 to two bars (straight, dotted and triplet) at the current tempo. Attack stays in milliseconds, so a synced envelope never smears the hit. Turning SYNC on snaps the shape you already have to the nearest notes, and turning it off keeps the shape exactly as you hear it. While SYNC is on, the well shows the beat grid and **H** and **D** snap to it. Drag a synced cell up or down to step through the note lengths, or click it to pick one from the list. Everything is edited on the curve: **A** and **H** ride the peak, **D** is where the decay lands — drag it sideways for the decay time and up or down for the sustain level — and the sustain line itself drags up and down. Behind the curve, the sample is drawn as you will hear it, carved by the envelope. Park **D** in the top-right corner for no decay; double-click any handle to reset it. **RELEASE** acts on looping pads only — a one-shot plays its shape to the end of the sample, whatever the note length, so the cell says **LOOP ONLY** there.
- **PIT — Pitch envelope.** Up to plus/minus 24 semitones of start offset with an exponential decay from 1 to 2000 ms, applied as playback-rate modulation so it never clicks. This is how you get an 808 to fall, or a tom to drop. The sweep is drawn over the hit it bends: the start handle sets the amount, the end handle the decay, and a drag anywhere else does both.
- **DUCK — Sidechain ducker.** Two chips sit above the curve, and they are independent: **TRIG** is what restarts the dip, **SHAPE** is what the dip looks like.

TRIG is either a **pad** — every hit of the pad you pick ducks this one — or the **GRID**, a note division from 1/32 to 1/1 including triplets and dotted values. It starts on the kit's kick, so switching DUCK on does the obvious thing. On the grid it needs no source pad at all, and it locks to your DAW's song position,

so a four-to-the-floor pump lands on the beat at any tempo without spending one of the 16 pads on a silent trigger sample.

SHAPE is one of two. **FOLLOW** uses the source pad's own measured amplitude envelope, so the bass breathes with the shape of the kick that is actually loaded and stays right when you swap that kick. **DRAW** hands you the curve, starting from the classic pump — the same sidechain curve THE_GAIN 2 opens on, and **Reset to the sidechain curve** in the SHAPE menu brings it back: click to add a point, drag it, drag the small ring between two points to bend that segment, double-click a point to remove it or a ring to straighten it. Points snap to the grid and to eighths; hold SHIFT to place them freely.

The mixed pairs are where it gets interesting. GRID + DRAW is a drawn rhythmic gate locked to the bar. PAD + DRAW fires a hand-drawn shape off the snare.

DEPTH sets how far the dip goes (the FLOOR readout shows where that lands in dB), **LENGTH** scales the window from 0.25x to 4x, **ATTACK** smooths the onset, and **VEL** tracks how hard the trigger hit — which the grid has no notion of, so that one dims when TRIG is on the grid.

- **Auto tonal-gain compensation.** EQ and filter moves are level-compensated against the sample's measured 32-band spectrum, so brightening a snare does not also make it louder and fool your ears into liking it.

One-shots always play to completion — with or without an envelope, so a short sequencer gate or a quick pad click never chops a hit. Looping pads stop on note-off: through the envelope's RELEASE when ENV is on, otherwise with a click-free fade.

Where that note-off comes from depends on who plays the pad. From your fingers, a controller or the DAW, a loop lasts as long as you hold the note. **From the pattern, a looping pad holds until that lane's next hit** — the old voice lets go at the exact sample the new hit starts — so a one-bar loop with one hit per bar plays the whole bar, and a loop on every quarter retriggers on every quarter. GATE does not cut it short. Stopping playback, muting or soloing the lane away, or switching LOOP off ends a held loop straight away. Live MIDI out to your DAW carries the same held note lengths. A dragged-out MIDI file writes every note at GATE length, so when you play a clip like that back into THE_PATTERN, raise GATE for its looping pads.

THE KICK — a synth kick that can rebuild your kick

You know the moment. You find a kick in a pack that is almost it. Then the problems start: the tail is a semitone off your bass, it rings a beat too long, and the click is buried. Pitch the sample and the click moves along with the tail. Shorten it and the tail gets chopped instead of dying away. Layer a second kick for the click and the two start cancelling each other. A sample is a finished recording, and a finished recording can only be changed so much.

So pad 1 in THE_PATTERN 2 can be a kick synth, and MATCH turns the kick sample you drop on it into synth settings.

Drop the almost-right kick on the editor. The synth listens to it and rebuilds it: the pitch drop, the level curve, the harmonics, the drive, the click. Every part of that is now a point you can drag or a value you can type. Land the tail on your key. Make it 80 ms shorter so it dies away instead of stopping. Keep the file's own click on top if that is the part you loved. It is still that kick, and now you can change it.

You don't have to start from a file. Sixteen factory kicks cover house, techno, 808s, DnB, hardstyle, lo-fi and cinematic booms, and INIT is a clean place to draw your own from nothing.

Switching it on

The **SYNTH** chip (a small sine glyph) sits on pad 1's tile, next to LOCK. Click it and the pad becomes a synth kick and the KICK editor opens. Clicking it again opens or closes the editor. The chip never switches the synth off: that is the **ON / OFF** pill in the editor's header, and OFF hands the pad straight back to its sample.

While the synth is on:

- The editor tab reads **KICK** instead of SAMPLE, and SLICE disappears, because a synthesised kick has no audio to slice.
- The pad tile reads **KICK SYNTH**, or **TOP:** and the sample's name when a top layer is loaded. The tile's waveform is the kick you will hear, rendered through the pad's whole chain.
- The ENV and PIT lanes and the pad's PITCH row step aside. The synth has its own level curve, its own pitch curve and its own TUNE, and two envelopes fighting over one kick would help nobody.
- Everything else about the pad still applies: TRS, CRS, DRV, FLT, EQ, CMP, PAN, DUCK, the sends, choke, routing and LOCK.
- Dropping a sample on pad 1 does not switch the synth off. The sample becomes the kick's **TOP** layer.

The synth kick lives on pad 1. If you dropped a sound in front of pad 1 and another pad now sits first in the rack, right-click that pad and choose **Make kick**: it gets the kick synth and its own SYNTH chip, KICK opens, and the pad's sample stays on as the kick's TOP layer.

MATCH — drop a kick, get it back as a synth

There are three ways in:

- **Drop a kick file anywhere on the KICK editor.** The graph says **DROP TO MATCH THIS KICK** while you hover. WAV, AIFF, FLAC, MP3 and OGG are accepted.

- Click **MATCH** (the sparkle chip on the right of the graph's caption row) and pick a file.
- Right-click the editor and choose **Match a kick from a file...**

The card shows **LISTENING TO THE KICK...** while the analysis runs in the background. First it reads the kick: where it starts, how loud it is, where it dies, and how its pitch falls from the hit to the tail. Then it rebuilds that with the actual synth. It renders the synth, compares the result with your file, adjusts, and repeats hundreds of times. It fits the pitch curve, the level curve, PUNCH, HARM and its odd/even colour, DRIVE, CLIP, LOW CUT and the click. Last, it fine-fits the first 30 ms on the waveform itself, because the first 30 ms is where a kick's hit happens.

Then it gives you two answers, each scored out of 100:

- **SYNTH ONLY** — the kick rebuilt entirely by the synth, every part editable. The card says **REBUILT BY THE SYNTH - EVERY PART EDITABLE**. When the rebuild scores under 40 (usually a file that is not really a tonal kick, like a clap-like thud or a pure noise hit), the card tells you straight: **NOT A TONAL KICK - THE SYNTH CAN ONLY SKETCH IT**.
- **KEEP ITS CLICK** — the synth builds the body and the file itself becomes the TOP layer, split at a crossover so the file's own attack sits on a synth body. The crossover is chosen for that file, never below 150 Hz. The TOP is started at the file's onset, levelled from the file's own balance of highs to lows, and phase-aligned against the body when that measures better. The card reads **SYNTH BODY + THE FILE'S OWN ATTACK ON TOP**, or **THE FILE'S SOUND + A LIGHT SYNTH BODY UNDER IT** when the file carries most of the sound.

The closer of the two is marked **(BEST)** and pre-selected. KEEP ITS CLICK only takes that mark when it is clearly closer, so when both are nearly equal you get the kick that is fully editable.

HEAR ORIGINAL and **HEAR RESULT** play the file and the selected answer at the same loudness, without the pad's inserts. Your ears compare sounds, not levels. After HEAR RESULT, clicking the other answer plays that one straight away.

Nothing changes until you press **APPLY**. APPLY writes the new kick with TUNE at 0 and LENGTH on free time. KEEP ITS CLICK also loads the file onto pad 1 as its TOP and opens the TOP page, so the part you kept is right in front of you. SYNTH ONLY leaves any TOP sample you already had loaded, muted. **CANCEL**, Esc or a click outside the card walks away with the pad untouched.

A file that cannot be read, is too short to be a kick or is silent is turned away on the card, with the reason.

The curves — PITCH and AMP

The big graph edits one of two curves. **PITCH** is how the kick falls from the hit to its tail. **AMP** is how loud the body is over that time: the punch at the start and how long the tail rings. Switch with the tabs in the header, or press **1** and **2**.

The time axis is logarithmic. In a short kick, the first 50 ms (the drop, the click, the punch) takes about half the width, because that is where a kick's character is decided. Pitch is drawn on a log scale from 20 Hz to 2 kHz with the A of every octave marked. AMP runs 0 to 100 %. Behind the curve is the kick itself: its waveform is re-rendered by the same engine that plays it, every time an edit settles.

- **Up to 16 points per curve.** Click the line to add a point; the curve does not change shape until you move it. Drag a point to move it. Double-click or right-click it to remove it. The first and last points only move up and down.

- **Pitch points snap to notes.** Dragging a pitch point lands it on a semitone, with a guide line showing the note. Hold **SHIFT** to move between notes.
- **Bend rings.** The small ring in the middle of each segment bends it. Drag it and the curve follows your mouse, scroll over it for small steps, double-click it to straighten the segment. This is how a drop falls fast and then settles, which is the shape a real kick's pitch has and a straight line cannot draw.
- **TAIL** (on the PITCH tab) shows the note the kick ends on, with cents: **A1 +12c**. When the tail is more than 2 cents off a note, a **TUNE** chip appears beside it. One click lands the tail exactly on the nearest note.
- Hover or drag a point and a small readout shows its note or level and its time.
- **SPACE** plays the kick.

Every edit in the KICK editor is its own undo step: a drag, a click, a menu choice, a KICKS load, an A/B switch or a MATCH APPLY.

BODY, CLICK and TOP

Under the graph are three tiles, one per layer. Each has its own level (drag it up and down) and an **M** mute chip. Click a tile and the value row underneath becomes that layer's controls. Every value takes a drag (SHIFT for fine), a double-click to reset and a right-click to type. Typing understands **ms**, **hz**, **k**, **st**, **%**, **off** and **open**.

BODY — the tuned part, and the whole kick's output stage.

Control	Range	What it does
PUNCH	0 – 100 %	Where the first cycle starts. More punch, harder first hit.
HARM	0 – 100 %	Overtones on the body that fade within the hit, so the kick reads on small speakers without a longer tail. Their colour (more odd for hollow and hard, more even for round and warm) is in the right-click menu under **Harmonics colour**.
DRIVE	0 – 100 %	Up to 30 dB into the shaper, oversampled 4x so a hard-driven high start does not alias.
TYPE	SOFT, TUBE, HARD, FOLD	The shaper's character. Click to pick one from the list.
CLIP	0 – 100 %	A soft ceiling on the output. 0 is clean.
TUNE	± 24 st	Moves the body. The CLICK and the TOP stay where they are.
LENGTH	30 – 2000 ms	How long a hit lasts. The end always fades out (over 5 ms, or less on the very shortest kicks), so a short kick never clicks off. Right-click the editor for **Length** synced to the tempo, from 1/32 to a whole bar, including triplets and dotted values.
LOW CUT	10 – 200 Hz	A high-pass on the output, for the sub you can feel but your speakers can't play.
VEL > SWEEP	0 – 100 %	Soft hits drop in pitch less than hard ones.

Keep the sub clean when driving (right-click menu, on by default) splits the kick at 100 Hz and drives only what is above it. DRIVE and CLIP add grit to the part you hear, and the sub underneath stays round and in tune.

CLICK — the synth's own attack: a short, tuned noise burst, identical on every hit.

Control	Range	What it does
LEVEL	0 – 100 %	How much click.
DECAY	0.5 – 200 ms	A tick at the short end, a slap at the long end.
TONE	0 – 100 %	From a dull knock (around 600 Hz) to a bright tick (around 9.6 kHz).
VEL > LEVEL	0 – 100 %	Soft hits click less. It scales the TOP as well.

TOP — a real sample over the synth body, split at a crossover. Your body, somebody else's attack.

Control	Range	What it does
LEVEL	0 – 100 %	25 % plays the file at its own peak level.
X-OVER	20 Hz – 4 kHz	Where the TOP takes over, with a steep 24 dB/oct high-pass on it.
START	0 – 200 ms	Skips into the file, so the TOP starts on its attack rather than its silence.
DELAY	0 – 20 ms	Moves the TOP later against the body.
PITCH	± 24 st	Tunes the TOP on its own.
TONE	200 Hz – OPEN	A low-pass on the TOP.
DECAY	OFF – 2000 ms	Gives the TOP its own fade, so a long sample can supply just its click.

The ◀ ▶ arrows on the TOP tile step through every kick in your library and play each one as you go. ✕ clears the TOP.

ALIGN is the button that makes a layered kick hit. It moves the TOP's START to the file's real onset, then tries both polarities and every offset up to 4 ms, keeps the one with the most energy around the crossover, and tells you what it won: **ALIGNED +3.1 DB**, or **ALREADY ALIGNED**. Two layers fighting at the attack is the most common reason a layered kick sounds smaller than either part on its own, and this is the fix. **FLIP** inverts the TOP by hand.

Body stays under the top (right-click menu, on by default) low-passes the body at the crossover while a TOP plays. The two layers share the spectrum instead of doubling up in the middle.

KICKS — sixteen factory kicks

The **KICKS** chip (books icon, next to MATCH) opens the factory kicks by style, each listed with the note its tail lands on:

Style	Kicks
BASICS	INIT, TIGHT, CLICKY

HOUSE	DEEP, WARM
TECHNO	RUMBLE READY, HARD TECHNO, WAREHOUSE
808	808 LONG, 808 DIRTY
DNB	DNB PUNCH
HARD	HARDSTYLE, FOLDED
LO-FI	LO-FI THUMP
CINEMA	BOOM, SUB DROP

Every tail sits exactly on its note. Loading one replaces the synth and **keeps your TOP**: the sample and all its settings stay. So you can audition sixteen bodies under the same click. The chip shows the name of whatever is loaded, including the file name of a matched kick. **Reset to INIT** in the right-click menu goes back to the plain starting kick.

A B

Two slots in the header for comparing versions. Switching saves the kick you are leaving into its slot and plays the other one. An empty slot starts as a copy of the kick you just left, so press **B**, make the bold move, and flip back to **A** to hear whether it was better. The slots hold the whole synth (curves, every layer setting, TUNE and LENGTH), not the TOP sample file. Both are saved with your session, so A and B are still there tomorrow. Kits don't carry them.

The right-click menu

Right-click anywhere in the editor that is not a point:

- **Keep the sub clean when driving**
- **Body stays under the top (split at X-OVER)**
- **Harmonics colour** — More odd (hollow, hard), Balanced, More even (round, warm)
- **Length** — Free (ms), or synced from 1/32 to 1/1
- **Match a kick from a file...**
- **Reset to INIT**

How it plays

- **Its trigger note plays it**, like any pad. It is a drum, not a keyboard synth: other notes don't play it chromatically.
- **The sequencer's per-step pitch moves the body.** Coarse (± 24 st) or fine (± 3 st) pitch locks transpose the body for that hit. The CLICK and the TOP stay where they are, so the attack is the same on every hit.
- **Velocity** scales the level when the pad is velocity sensitive, and **VEL > SWEEP** and **VEL > LEVEL** shape the drop and the click on top of that.
- **Sixteen voices**, choke groups and Polyphonic behave as they do on any pad.

- **Out 1** is pad 1's aux by default, labelled Kick, and it stays in the main mix. Your bass can sidechain from the kick in the DAW without any extra routing.
- **Ducking follows the synth.** A pad that ducks from pad 1 in FOLLOW reads the synth kick's own level curve and length, so reshaping the kick reshapes the pump.
- **LOCK keeps it.** A locked pad 1 keeps its synth kick through every kit load and every generation. Kit loads reset an unlocked pad 1 to a sample.
- **It travels with the project**, and the AUDIO and STEMS drag-outs render it exactly as you hear it.

The Sequencer

The pattern model

- **Up to 16 patterns**, each with its own name and colour if you give it one. The strip shows the patterns you have, in the order you put them, with a **+** to add the next.
- **Up to 16 lanes** — one per loaded pad, addressed by MIDI note, each with its own mute, solo, kit-load lock, focus view and grid division. A kit of ten sounds gives you ten lanes; nothing empty takes up room.
- **1 to 16 bars** per pattern in 4/4 — click **BARS** on the controls strip to set the length — and a **per-pattern time signature**, numerator 1 to 16 over 2, 4, 8, 16 or 32, set in CLOCK. A pattern holds up to 64 quarter notes, so longer meters fit fewer bars: a 7/4 pattern runs to 9.
- **A longer pattern keeps playing.** Raise BARS and the bars you had repeat into the new ones, every lock with them, so a 2-bar groove set to 8 plays four times through and you vary it from there. A pattern you shortened earlier still holds its later bars, and raising BARS again brings those back exactly as they were instead. A lane with its own length already repeats and is left alone. One undo step.
- **A fixed internal resolution of 1/192** — 48 steps per quarter. The grid division you choose (1/4, 1/8, 1/16, 1/32, 1/64, 1/8T, 1/16T, 1/32T) is a **view**. Notes never lose their timing when you change it, and a lane can override the global division while the others keep theirs. Every one of those divisions, triplets included, lands exactly on the internal grid.

TOOL and LAYER — the two selectors that decide what the mouse does

TOOL picks the mouse:

- **DRAW** (key B, the default) — click an empty step to put a hit there at velocity 85 %, drag to paint a trail. Click a hit to remove it; drag a hit to move it. A lasso needs Shift, or Cmd/Ctrl from an empty step.
- **SELECT** (key S) — the mouse selects. A bare drag rubber-bands, a single click adds nothing, and adding a hit is a deliberate double-click.
- **STAMP** (key T) — opens the stamp bar, see Magic Stamps below.

LAYER picks what a drag on a hit changes: **NOTES**, **VELOCITY**, **CHANCE**, **ROLL**, **WHEN**, **NUDGE**, and in a lane's focus view **PITCH** and **PAN**. Keys 1 to 7 and 0 select them, and pressing the active layer again returns to NOTES. The selector wears the lane family's hue as a strip, and the same call-out opens from the grid, so the chips and the keys always agree.

On a value layer the mouse edits the hits that are there. Nothing is moved or removed, and a click on a hit leaves its value alone, so you can click one to hear it (the click also makes it the selection). Drag a hit up or down to change its value, and keep dragging sideways to set every hit you cross on that lane in the same stroke; a diagonal stroke draws a ramp. The tool decides how the value follows the mouse. With **SELECT** it moves from where the hit was (the full range takes 140 pixels, Shift for fine), and every hit you cross takes the value you are carrying. With **DRAW** it goes to the pointer's height, and a stroke can start on an empty step as well as on a hit. Each hit the stroke reaches is heard once as it gets its

value, and a hit you drag in place is heard when you let go, at the value you set -- and every hit the grid plays for you sounds the way the pattern plays it, with its pitch and pan. Double-click a hit to put the value back to the layer's default (velocity 85 %, chance 100 %, x1, every loop, on the grid, no pitch change, centre), or right-click it to type the value in the units its badge shows: **85** (per cent, **85%** types too), **1:4** or **all**, **+2.5** ms, **-3** semitones (cents on a FINE lane), **L30**, **C** or **R30**. Up and Down arrows step the selected hits' value, Shift for fine; Left and Right step to the previous or next hit on the lane (Shift adds it), so a lane can be levelled from the keyboard. A click on an empty step clears the selection, a double-click there adds a hit (the same one a double-click adds on NOTES), and a right-click there opens the grid menu.

Selecting works as on NOTES: Shift-click a hit, Shift-drag or Cmd/Ctrl-drag a frame. Cmd/Ctrl-click a lane name to select every hit on that lane.

STAMP drops hits, so it only works on NOTES. Pick a value layer while stamping and the stamp bar closes, handing the mouse back to DRAW or SELECT. Pick STAMP on a value layer and the layer goes back to NOTES. A note at the top of the grid says which switched.

Switching to a lock layer while the page is wider than two bars zooms to a two-bar page so the glyphs are big enough to edit, then gives you your page back when you leave.

Per-step data — the locks

Lock	Range	What it does
Velocity	0 to 100 %	the note's velocity; a new hit is 85 %
Chance	0 to 100 %	the probability the step fires
Roll	1 to 8	splits the step into evenly spaced retriggers
Nudge	about plus/minus 10 ms at 120 BPM (a 1/192 note either way)	moves the hit off the grid, and overrides swing on that step
Pitch	plus/minus 24 semitones	per-hit pitch, also sent out as CC20
Pan	left to right	per-hit pan, also sent out as CC21
When	23 conditions	the conditional trig, see below

Every lock is edited the same way: pick the layer, drag vertically on the note.

A whole selection at once. On VELOCITY, CHANCE, NUDGE, PITCH and PAN, select several hits and drag any one of them: every selected hit moves up or down by the same amount. On VELOCITY that means accents keep their shape while the part gets louder or softer. Each hit stops at the top or bottom on its own, and dragging back brings the original spread back. The full range takes 140 pixels of travel; hold Shift while dragging for fine steps. The badge reads the hit under the mouse, how far the group has moved and how many hits it holds (**97% (+12) - 8 hits**). A drag on a hit that is not selected, or with only one selected, is an ordinary stroke: it changes that hit, and every hit you cross on its lane, the way the tool says. ROLL and WHEN are steps rather than amounts, so a drag on them is always a stroke. A double-click reset or a typed value on a selected hit applies to the whole selection too.

To take a whole lane, Cmd/Ctrl-click its name or choose **Select all hits** in the lane menu; Shift adds it to what is already selected. A Shift-drag frame also adds to the selection, so it can grow across pages.

On the grid every lock shows on its note, in the colour of the layer that edits it, cut into a small dark pocket so it reads on any lane colour: a chance bar along the top, a ratchet split, the note shifted by its nudge, the **X:Y** tag (a dot when the cell is small), and one pocket in the bottom corner for pitch and pan. When the cell has room that pocket prints the values (**+5 R30**); when it is packed it shows an arrow per lock: up or down for pitch, left or right for pan. Hover a note to see every lock on it with its value.

PITCH and **PAN** turn the focused lane into that value's editor. The notes fade back, a centre line marks 0 semitones or centre, and every note carries a marker at its value with the number beside it, exactly where a drag would set it. A line joins the markers so you can read the pitch run across the bar.

Fine pitch. The PITCH row in the LAYER selector carries a small switch that changes the focused lane's pitch from semitone steps over plus/minus 24 to a continuous plus/minus 3 semitones, for tuning a hit by cents rather than by notes. Each lane keeps its own setting.

WHEN — conditional trigs

Twenty-three **X:Y** conditions, plus Always (the default): the step fires only on repetition X of every Y times the lane loops. 1:2 plays every other time round, 3:4 on the third pass of four, and so on, grouped in the menu by cycle length.

Two details that matter: conditions count **that lane's** cycles, so a 1:2 trig on a lane that loops every bar inside a four-bar pattern fires every other bar. And they survive export — a dragged-out MIDI file expands the conditions deterministically over the least common multiple of every lane's cycle (up to 64 passes), so the clip in your DAW plays the whole logic out.

Lane length — polymeter you can see

Any lane can loop shorter than the pattern. Right-click a lane header and choose **Lane length**: whole bars for the common case, exact cell counts behind a submenu for the niche.

What makes it readable: the lane's editable loop draws at full detail, and the rest of the pattern is tiled with **dimmed mirror ghosts** of it, with a gold hairline at the loop end. Click a ghost and you edit the real cell it reflects. A lane with its own length wears a gold badge in its header — "2B", or "12/16" for a custom count — so a polymeter is visible without opening a menu.

The playhead still sweeps the full pattern width and lights whatever cell it is over, so you can watch the phase walk.

Cut sound at pattern end

Long ambiences, risers and drones would normally ring on after the pattern loops. Right-click a lane header and tick **Cut sound at pattern end**: the moment the pattern's last bar ends (bar 4 of a 4-bar pattern), that lane's pad is cut with a short click-free fade. It is also cut when you stop playback. A hit on step 1 still restarts the sound — the cut always comes first. The cut follows the pattern's length, not a shorter lane length, and it travels with the project and with saved kits. It applies while the sequencer plays the pattern; a MIDI clip dragged into your DAW plays the notes only.

Groove — swing, speed, micro, humanize

•

SWING from 0 to 70 %, shifting the off-beat 1/8 positions. Steps you have nudged by hand are exempt. Ratchet sub-hits and note-repeat hits swing too.

- **SPEED** — 0.5x, 1x or 2x, for half-time and double-time without re-writing anything. It lives in the CLOCK panel, because it is set once per kit rather than reached while writing; whenever it is not 1x, the factor reads on the CLOCK chip next to the tempo. Loading a kit sets it for you when the kit's tempo asks for it (see **Kits**).
- **Humanize (timing + velocity)** from the lane menu, or timing-only tools: **Humanize timing** for subtle drift, **Randomize timing** for looser, **Straighten timing** to put everything back on the grid.
- **Copy groove (timing + accents)** lifts a lane's per-16th micro-timing and accent shape; **Paste groove** at half or full strength lays it onto any other lane in any pattern. It only touches hits that already exist, the target lane's loudest hit keeps its level, and the template tiles across a longer lane. Your swung hat lane becomes a groove template for the whole kit.

Filling a lane

The lane menu holds every way of filling one:

- **Fill** — the parts you ask for by name come first: **Kick** (four on the floor, 1 and 3, boom bap, two-step), **Snare / clap** (2 and 4, halftime on 3, dembow, a build-up roll over the whole pattern), **Off hat**, **8th hat**, **16th hat**, **Trap hat**, **Crash on the 1**, **Tresillo** and the **3-2 son and rumba claves**. They are written in musical time, so Kick is quarter notes and Snare is beats 2 and 4 whatever division the lane shows, and the hats come with their accents. Under them: every step, every 2nd, every 4th, every 8th -- counted in the lane's visible cells.
- **Euclidean** — pick the number of pulses, then the rotation, both bounded by the lane's own visible cells so every choice makes sense.
- **Random notes.**
- **Trig condition** — assign one condition to every note in the lane at once, or clear back to Always.

Copy, paste and delete a lane

Right-click a lane header, or a pad, for the lane's own clipboard.

- **Copy lane (sound + groove)** copies the whole lane: the pad's sound design and the groove in every part. It goes through your computer's clipboard, so you can paste it into another kit, another instance of the plugin or another project.
- **Paste lane** puts it onto the lane you right-clicked. The menu names what you are about to paste. **Paste only** takes just the sound or just the groove, so you can put a better snare under a groove you like, or a groove you like under the snare you have.
- Pasting follows the same rules as taking a lane from the browser's **lanes view**: parts matched by name, the groove fitted to your part lengths, your routing and trigger notes kept, one undo step.

Clear lane and **Delete lane** sit on their own at the bottom of the menu, each behind a confirmation. **Clear lane** empties the notes in the pattern on screen and leaves the sound. **Delete lane** removes the lane: the sound and its settings, the groove in every part and the lane's own settings. The lane disappears from the sequencer and the pad moves to the end of the rack, so a deleted lane leaves no hole in the middle of your kit. Undo brings it all back. A locked lane cannot be deleted until you unlock it.

Magic Stamps

Press **T** and the stamp bar docks above the grid with seven rhythmic motifs: **4 Quarters**, **2 Half Notes**, **1 Bar 8ths**, **1 Bar 16ths**, **Offbeat 8ths**, **8th Triplets** and **16th Triplets**. Hover a lane and the motif ghosts where it would land; click to stamp it, Alt-click to merge it on top of what is there instead of replacing.

Stamps drop at the cursor, not at the start of the lane, and they are placed on the internal 1/192 timebase — so an 8th-triplet stamp is genuinely triplet, whatever division the lane is showing.

Recording and note repeat

REC arms live recording. Play the pads with your fingers, a controller or BEATBOX, and the hits land on the pattern quantised to the nearest visible cell — an early hit lands on the next loop rather than a bar too late. One-shot suppression stops a live hit and its recorded step double-firing, and your playing stays audible while it records.

REC records in SEQ mode only. THRU and TRIG play live MIDI but never record it, so in those modes the REC chip is dimmed and its tooltip tells you to switch MODE to SEQ.

RPT — note repeat. Hold a pad and it retriggers on the visible grid, swing included. Combine it with REC and it prints hat rolls.

Patterns and the song chain

- **Click** a pattern chip to play it; the grid shows it. **ALT-click** a chip to put it on the grid while the song keeps playing -- edit the drop while the verse runs. The chip you are editing wears the selection look, the one you hear keeps a white bar along its bottom, and the pager strip under the grid says **EDITING DROP PLAYING VERSE**; click it to go back to the pattern you hear. Live recording always lands in the pattern you hear.
- **+** adds a pattern after the last one and opens its name right away. **Double-click** a chip to name it: type anything up to 12 characters, or click one of the part picks underneath -- INTRO, VERSE, PRE, CHORUS, DROP, BREAK, BRIDGE, OUTRO, FILL. A pick that is already taken comes out numbered (VERSE 2). Enter, a pick or a click away keeps the name; Escape leaves it as it was. The same picks are under **Name as** on the chip's right-click menu. An unnamed pattern shows its letter. The picks are the words ARRANGE reads -- a name of your own is fine, it just stays out of an arranged song.
- **Drag a chip along the row** to give it a new place; a caret shows where it lands. **Drag it off the row** and it is that pattern as a MIDI clip, named after it, ready to drop into your DAW.
- **Right-click** a chip for Rename, **Colour** (the eight lane colours, worn as a band along the top of the chip), Make a fill, Duplicate, Copy, Paste, Chain patterns..., Clear and Delete. Clear keeps the pattern and empties it; Delete takes the chip away. Both ask twice, and the last pattern cannot be deleted.
- When names run out of room, the chips other than the one on the grid switch to **short labels** -- INT, VRS, VRS2, PRE, CHR, DRP, BRK, BRG, OUT, and your own names down to their consonants (GROOVE reads GRV). No two chips ever read the same, and **hovering one grows it back to its full name** without moving the row. What the row has no room for waits behind a **+N** chip -- the rest of the strip never moves to make room. Click it and every pattern opens at full name, with its colour and states: click one to play it, ALT-click to edit it while another plays, double-click to name it, right-click for its menu, and **NEW PATTERN** underneath (the + folds into it while patterns are hidden). It stays

open, so you can click through your patterns to hear them. The pattern on the grid is always one of the chips on show, and a wider window shows more of them.

- **Make a fill** -- Light, Medium or Heavy -- copies the pattern into a new pattern right after it and reshapes its last bar by role, read from each pad's sample name: snares and claps build on 16ths with rising velocity, hats gain rolls, off-beat kicks drop out so the break breathes, toms fill lightly, crashes are left for the next downbeat. Locked lanes stay untouched. A named pattern names its fill (VERSE makes VERSE FILL, and Duplicate makes VERSE 2). Nothing you made is ever written over, and the whole thing is one undo step.
- **CHAIN** -- your song. The link chip sits on the strip beside BARS and reads **OFF** until you build one. Click it and the song opens as a list: each row is a pattern, its length, and how many times it plays in a row -- **VERSE x4**, **FILL x1**. Drag the repeat well up or down (or scroll on it, double-click for x1), drag a row to a new place, hover a row for its remove x. Your patterns sit underneath, by name; a click adds one to the end, a drag takes its trigger clip into your DAW (see below). The footer adds the song up (**SONG 43 BARS**), **ON/OFF** parks it without throwing it away, and **CLEAR** asks twice. While it plays, the chip counts you through it -- **3/5** is the third entry of five -- and the playing row counts its passes (**3/4**). Every entry starts at **its own bar 1** and the next takes over on its bar line, time signatures included. The song rounds when it ends; stopping the transport, looping in your DAW or clicking somewhere else on the timeline starts it again from the first entry. Clicking a chip or switching by MIDI takes over and switches the chain off. Dragging a chip out while the song is on exports the whole song, repeats and all.

SEQ, THRU and TRIG

- **SEQ** — the sequencer plays the patterns and blocks incoming MIDI notes unless REC is armed. If you play while it is blocking, the MODE cell itself says **MUTED** in red and falls back to SEQ about a second and a half after the last dropped note, so a held phrase reads as one steady state instead of a flicker. Switch MODE to THRU to play the pads live, or arm REC to record.
- **THRU** — pure MIDI passthrough. The plugin is a drum rack and your keyboard plays it.
- **TRIG** — incoming MIDI passes through, and holding a pattern's launch key (**C0** upward) plays that pattern for as long as you hold it, stopping bar-quantised on release. Last note wins. This is the performance mode: the launch keys sit two octaves below the pads, so one keyboard plays the kit with the right hand and launches patterns with the left.

The note map: pads 1 to 16 sit chromatically from **C3** (60 to 75), so pad 1, the kick, answers to C3 just as THE_PATTERN 1's kick did, and the 16 pattern launch keys sit two octaves below them, chromatically from **C0** (24 to 39). One octave-down press puts the launches under your left hand with the kit still under your right. A pad answers to its own note only -- per-pad trigger notes are editable if you need a different map. Note that C0 to D#1 is inside the bottom of the GM drum range, so a GM drum clip routed to the plugin can arm patterns; keep pattern launching on its own MIDI track, or move the keys: **CLOCK > MIDI > LAUNCH FROM** drags the whole 16-key block anywhere, and **PATTERN KEYS** switches them off entirely. (TRIG always listens to them -- they are its control surface.)

MIDI pattern switching: **C0 to D#1** (notes 24-39) are your patterns' launch keys. Each pattern keeps its key for good -- reorder the chips and nothing moves, so a clip in your DAW always means the same pattern. The key is in the chip's right-click header and in the +N list. A key for a pattern you have not made does nothing. Bar-quantised while playing, immediate when stopped, and a manual switch

cancels a pending one. A launched pattern always starts at **its own bar 1**, whatever was playing before it.

Songs. MAKE SONG, ARRANGE, trigger clips and MIDI PARTS have a chapter of their own: see **MAKE SONG**, right after this chapter.

CLOCK

One chip holds the settings that you set once: **SYNC** (DAW or free-run), **BPM** for free-run from 30 to 300, **SPEED** (0.5x / 1x / 2x), **GATE** note length from 1 to 500 ms (for sounds that answer to note length; looping pads ignore it and hold to their lane's next hit), **MIDI channel** 1 to 16, **PATTERN KEYS** and **LAUNCH FROM** (see SEQ, THRU and TRIG), the pattern's **TIME SIG**, snap, MODE, note repeat and MIDI learn.

DAW follows your host's tempo and transport; BPM then shows the host's tempo and cannot be dragged. **FREE** runs at its own BPM and keeps playing when the host stops. The chip itself wears the state it holds — DAW 120, or FREE 128, with the speed factor beside it whenever the clock is stretched — and shows the one non-default thing when there is one, so LEARN, THRU, REPEAT or NO SNAP never hide inside a menu.

The grid **DIVISION** is not in there. It is a cell of its own on the transport row, between SWING and CLOCK: you reach for it constantly while writing a groove, so it is one click away and reads at a glance. Click it to pick a division, double-click to go back to 1/16; a triplet grid lights the cell so you always know when you are on one.

The grid views

- **The pager** under the grid moves you through a pattern longer than the view: the arrows step a page, the dots jump to one, and the follow toggle flips pages with the playhead. The magnifier **+** and **-** buttons in the same strip show fewer bars per page for detailed work, or more, back to the view that fits the whole pattern.
- **WAVE** draws each step as the pad's actual waveform at its true musical length, in the lane's hue, bedded on a per-bar recessed well with a three-level gridline hierarchy. It reads like a DAW arrangement, which makes it the right view for judging whether a ringing tom is stepping on the next hit.
- **Focus** on a lane header gives that one lane the full height — and unlocks the PITCH and PAN layers. Selected hits on the lanes it hides leave the selection, so Delete, a drag or an arrow only ever touches the lane you see.

MAKE SONG — one groove, the whole drum track

Eight bars that feel great are where most tracks stall. MAKE SONG takes the groove you have, a loop you dropped or a pattern you programmed, and writes the rest of the drum arrangement from it: the parts, the fills and the order they play in. The moves are the ones behind my own records: a stripped-back intro, a verse that holds back, a build that rolls into the drop, a break that takes the kick out. Everything it writes is an ordinary pattern you can change.

Make a song from one pattern

Right-click a pattern chip and pick **Make song from ...**, or press **MAKE SONG FROM ...** in the CHAIN panel while the song is empty (it is also the first row of the ARRANGE menu). That pattern becomes the main part -- DROP in a club song, CHORUS in a song or a hip-hop one, gold and first in the row -- and the other parts are written from it: a stripped-back **INTRO**, a **VERSE** of kick, backbeat and the lane that keeps time, an 8-bar **BUILD** whose snare or clap rolls into the drop (club), a **BREAK** or **BRIDGE** without the kick and the cymbals, and an **OUTRO** that winds down on the kick, the backbeat and one more lane. Then ARRANGE lays the song out in the same form, fills and all, and the CHAIN panel opens on it. The whole thing is one undo step.

It reads what every lane is from what the loop analysis heard (for a loop you just turned into a pattern), from the library, or from the sample's name, and anything it still does not know by what it plays: the lane on the downbeats is the kick, the one on 2 and 4 the backbeat, the busiest one the hat. The form is guessed from the groove -- a four-on-the-floor kick is club, a snare on 3 is hip-hop, otherwise the tempo decides -- and **MADE AS CLUB / SONG / HIP HOP** in the CHAIN panel remakes it in another form with one click. Parts you already have are kept, so MAKE SONG only writes the missing ones, and a part you have edited, renamed or recoloured is yours: another form never takes it away. Locked lanes play exactly as they are in every part. The same groove always makes the same parts; the fills are rolled fresh each time ARRANGE writes them.

ARRANGE — a song from the patterns you already have

The **ARRANGE** button in the CHAIN panel's title builds the song for you from your pattern names. Pick a form -- **Song** (verse, pre, chorus, bridge), **Club** (groove, build and drop), **Hip-hop** (hook and verse) or **In order** (every pattern once) -- and it reads each name for its part: INTRO, VERSE, PRE (or BUILD), CHORUS (or HOOK), DROP, BREAK, BRIDGE, OUTRO. Every part you made plays, whatever the form: a Club song grooves on its VERSE before the first build, a Hip-hop song takes its BRIDGE or BREAK before the last hook, and a song with a BRIDGE and a BREAK plays both. Numbered parts take turns -- the second verse is VERSE 2, the last chorus your last CHORUS. A part you have not made is played by its neighbour (no CHORUS: the DROP plays it; no BRIDGE: the BREAK), never invented, and the same pattern never plays twice in a row -- two sections of it become one longer one. Every section gets its usual length: a 16-bar verse from a 2-bar VERSE plays it x8.

Fills. Sections hand over with a fill. Each pattern gets one fill, sized for the biggest change it leads into -- heavier when it leads into a CHORUS or DROP, lighter when it only leads into a VERSE or the OUTRO -- and plays that fill wherever it hands over. A PRE or BUILD is already the way in and gets none, and the song ends on its last section, not on a fill. ARRANGE takes the fill you made for that pattern (VERSE FILL -- the name **Make a fill** gives it), else a fill named for the part, else it makes one: a new pattern

right after its source, named after it (VERSE FILL) and in its colour, and the panel lists what it made. Try another form and it reuses them; the fills ARRANGE made that the new song does not play are removed again -- unless you have edited, renamed or recoloured one, which makes it yours. The chain holds 16 entries, so in a long song the lightest fills give way first. ARRANGE replaces the song as one undo step, new fills included, and everything it made is an ordinary chain of ordinary patterns you can edit. A pattern whose name says no part is left out, and the panel lists which ones.

Take the song into your DAW

With CHAIN on, the **MIDI**, **AUDIO** and **STEMS** handles export the whole song as one clip (see **Getting Sound Out**). For a song you want to keep arranging in your DAW, there are two more ways.

Arrange in your DAW with trigger clips. A trigger clip is one note on a pattern's launch key, named after the pattern -- one pass long for a single pattern, or a whole song part long when it comes from the song. Put the plugin in **TRIG** and lay the clips out on its track: each clip plays its pattern from bar 1 for as long as it lasts, a looped clip repeats it, a gap is silence -- and change a pattern in the plugin and every clip of it changes with it. They live with the song, in the **CHAIN** panel: drag a pattern chip out of it for that pattern's clip, or drag **TRIGGER CLIPS** for the whole song as trigger clips -- one clip per entry of the chain, in order and named after it (01 INTRO, 02 VERSE...), each as long as all of that entry's passes, so laid end to end they play the song. With no song built you get one clip per pattern, in chip order. Click TRIGGER CLIPS instead to save them into a folder. While MODE is not TRIG the handle says so, and a click switches it. **SHIFT-drag** a chip on the strip is the shortcut for one clip.

Or take the song's real notes. MIDI PARTS, under TRIGGER CLIPS, is the finished MIDI cut at the song's parts: one clip per entry of the chain, in order and named after it (01 INTRO, 02 VERSE, 03 VERSE FILL...), each holding every pass of that entry with swing, locks, ratchets, chance and conditional trigs played out exactly as the song plays them. Lay them end to end and it is the song, note for note -- and every part is its own named clip to move, cut or re-voice. With no song built yet you get one clip per pattern. They play the pads in **THRU** -- in SEQ the plugin ignores MIDI in and plays its own pattern -- so while MODE is not THRU the handle says so, and a click switches it. Drag it into the DAW, or click to save the clips into a folder.

LOOP → PATTERN

Drop in a loop you love, and THE_PATTERN 2 hears what is in it.

Four ways in:

- **Drag a drum loop onto the sequencer.**
- Click **LOOP IN** on the controls strip and pick a file.
- Pick **Loop → pattern...** from a pad's right-click menu.
- **Drop a long sound on a pad.** An offer fades in over the grid with two answers: **SYNC TO TEMPO** keeps the loop whole on that pad and makes it follow your tempo, and **LOOP → PATTERN** opens the card. Ignore it and it fades away, leaving the sound on the pad.

The analysis takes a moment. It finds the tempo, the bar count and the downbeat, times every hit it finds to the sample, swing and push included, measures how hard each one was played, and decides what kind of drum each hit is: kick, snare, hat, clap, open hat or other. That last decision is made by a small neural network trained on the drums of the CORE library. It runs on your computer, like everything else on this card: nothing you drop in is uploaded.

It reads loops in 4/4, between 60 and 200 BPM and up to two minutes long. Toms, cymbals and effects are marked OTHER.

It is made for **drum loops**. A file with bass, chords, pads or vocals in it, like a few bars cut from a finished track, reads badly: the bass turns into kicks and the pads into hats. The card checks for that and says **MORE THAN DRUMS IN THIS FILE**; a drum loop or the track's drum stem gives you clean hits.

Then the review card opens. Across its top is the loop itself, with a line for every hit it heard, coloured like the drum rows underneath — so you can see what it found before you hear it. Faint lines belong to drums you set to skip.

Now you choose the **RESULT**:

- **YOUR KIT** — the pattern plays on the pads you already have. The loop was the idea; your sounds play it.
- **LOOP'S SOUNDS** — the loop's own hits are placed on the pads as regions of the original file, one exemplar per drum. The loop's own sounds, playable from your pads.
- **LIBRARY** — the loop rebuilt from your library. See below.
- **CHOP** — the loop is cut at its onsets across empty pads as start-and-end regions of the original file, and one hit per lane replays it in order. REX-style, but it arrives as a playable kit plus a pattern, so you can mute one piece, swap another, and re-groove the rest.

The card gives you everything you need to judge it before it touches your project:

- **TEMPO** — AUTO, x0.5 or x2. A tempo detector can land an octave out; instead of asking you to trust it, these chips re-read the loop at exactly half or double, and re-derive the bars and hits. A chosen tempo survives a re-run. HEAR RESULT tells you which one is right.
- **HITS** — FEWER, NORMAL or MORE. FEWER keeps to the clear hits and can miss quiet ghost notes; MORE catches the ghost notes at the cost of a few extras.

- **HEAR LOOP** and **HEAR RESULT** — the original against what you are about to get, at the loop's tempo.
- **BARS**, the meter, and which pad each drum will play on — click a drum's row to send it somewhere else, or to **SKIP** it entirely.
- **EDIT CUTS** on CHOP, opening the chop editor so you can fix a cut before committing.

APPLY writes the result into the pattern slot named on the button — the first empty one — and sets that pattern's length to the loop's. A lane whose hits come closer together than the grid can show -- a hat roll, a flam, a 32nd pickup -- opens on a 1/32 view (1/64 if it needs it), so every hit is its own step to click. Only the view changes: every hit still plays exactly when it did in the loop. When it would replace a pattern that has notes in it, or pads that already hold sounds, the button asks first (**REPLACE PADS?**, **REPLACE B?**) and waits for a second press. **CANCEL** closes the card and changes nothing. The card borrows the height it needs from the layout and gives your layout back when it closes. The whole import is one undo step — and undoing an import when the slot empties returns you to the pattern you were looking at before.

LIBRARY — rebuild the loop from your own sounds

YOUR KIT plays the loop's rhythm on sounds that have nothing to do with the loop. LOOP'S SOUNDS keeps the loop's own sounds, with the bass and the room baked into every slice. LIBRARY is the third answer: **the closest thing to that loop you can build from clean one-shots you own.**

Click **LIBRARY** and the card says **FINDING THE CLOSEST LIBRARY SOUNDS - A MOMENT** while it works, which takes a few seconds on a dense loop and longer with a very large library. It does not simply look up the sound nearest to each slice. It rebuilds the whole loop out of library sounds at the hits it heard, compares that with the original, and keeps the sounds that recreate it best. That matters, because in a real loop the kick rings under the hat and the room sits on top of everything, and a sound picked slice by slice gets fooled by exactly that. Every sound in your library can win for its own kind of drum: CORE, installed expansions, your own saves and your **MY SOUNDS** folders. Snares and claps can stand in for each other, and so can closed and open hats; toms, cymbals and effects compete for the OTHER row.

Every drum's row then shows its pick: the sound's name, its tuning when a semitone or two brought it closer (**+2 ST**), and which match it is (**1/12**, up to twelve per drum). The ◀ ▶ arrows step to the next-closest or previous match, and the volume and velocities follow each sound, so **HEAR RESULT** always plays the rebuild the way the pads will play it, as a quick mono preview.

APPLY AS NEW KIT is exactly what it says. LIBRARY builds a new kit from scratch: the rack, the master FX and every pattern are cleared, the way a kit load clears them, and the groove lands in pattern A. Each drum's pad gets its sound as a fresh pad, with no EQ or envelope left over from before, at the level and tuning the rebuild found. If you already have a kit loaded, the button asks **REPLACE KIT?** first. Locked pads and locked lanes keep what they have, as they do through every kit load. It is one undo step, so one Cmd/Ctrl+Z brings your old kit and patterns back.

The pattern LIBRARY writes is the one the rebuild heard, not the raw transcription: a doubled hit that no drum explained is gone, a clearly audible hit the first pass missed is in, and every velocity comes from how loud that hit really was in the loop.

If your library has no sounds yet, the card says so and points you at the content and at MY SOUNDS.

Drop a MIDI file on a lane and it lands there as notes. Drop a pattern from the library and it ghosts in as a teal preview before it commits.

BEATBOX

Sometimes the groove is in your head, not in a loop. Beatbox it into your mic and it plays your pads — and with REC armed, it lands on the grid.

The **mouth mark** on the controls strip, between LOOP IN and REC, is BEATBOX. Click it for the card. It works with **THE_BRIDGE**, my free companion app that listens to the microphone for you. Most DAWs give an instrument plugin no microphone input, so the listening happens in THE_BRIDGE and THE_PATTERN 2 receives what it heard. THE_BRIDGE never asks you to log in: it recognises your THE_PATTERN 2 activation on the same computer and unlocks its BEATBOX mode on its own. Until a bridge is running, the mark stays dimmed, with a tooltip that says what THE_BRIDGE is and where to get it.

Press **LISTEN** and the bridge sorts what you make into your mic into kick, snare, hat, clap and open hat, plus three custom slots you can teach it your own sounds for.

The card shows whether a bridge is sending, what it last heard and the pad that played it, and which pad each sound plays. The row reads left to right the way the sound travels: THE_BRIDGE, then **LISTEN**, then what it **HEARD**. The **THE_BRIDGE** capsule shows a lit dot while the bridge is sending and an open ring when it is running but LISTEN is off. When THE_BRIDGE is installed but not running, that spot reads **OPEN THE_BRIDGE** and starts it; the card comes alive a moment later. If it is not on your computer yet, it reads **DOWNLOAD THE_BRIDGE** and opens its download page. Either way, LISTEN waits until the bridge is up. Each sound's **pad chip** picks where it plays: click it and choose the pad from the list. Arm the sequencer's **REC** (with MODE on SEQ) and what you beatbox is printed to the grid.

The mark lights the moment a bridge starts sending, so the strip tells you BEATBOX is ready without you opening the card.

Play it on your desk

BEATBOX doesn't care whether the sound comes from your mouth. THE_BRIDGE plays whatever you taught it, so you can drum the groove on your desk instead. Click THE_BRIDGE's **KICK** card and knock on the desk eight times. Teach **SNARE** a slap, **HAT** a fingertip tap, or whatever three sounds feel natural to you, and keep them clearly different. Turn on **ONLY YOURS** so the mouth-sound defaults stay quiet, and teach **IGNORE** the bump of your hand landing if it fires hits. Then press **LISTEN** in THE_PATTERN 2 and play: the knock plays the kick pad, and with REC armed it lands on the grid. **SAVE KIT** in THE_BRIDGE keeps your desk kit for next time.

The Library

The CORE library is the heart of THE_PATTERN 2: my own kits, one-shots and grooves, all of them release-ready, so what you audition is what ends up in the track. Everything in this chapter is about finding the right one fast, and about making your own sounds just as easy to find.

Three tabs, four filters

Sounds, **Patterns** and **Kits**, each with a **TYPE** column (kick, snare, hat, clap, open hat, tom, crash, perc...), a multi-select **TAGS** column, a text search (just start typing — an open browser owns the keyboard, so there is no field to click into and no Cmd/Ctrl combo for your DAW to swallow; Cmd/Ctrl+F still works if you reach for it, and Esc unwinds one layer per press: the similarity result, then the search, then the field) and source chips for CORE, your user library, installed expansions and each of your own folders.

Favourites — the star on any sound, pattern or kit. Stored per machine and shared between every instance and every session, so a sound you starred while writing is starred when you open tomorrow's project.

Auditioning, and the pattern skim

- **Sounds** preview on click; a double-click, a drag onto a pad or Enter loads one. The small icon just left of a sound's star starts **Find similar sounds** from that sound, and clicking a row's source label filters the list to that source.
- **Kits** play through a private preview engine — a second sampler and sequencer pair that auditions a kit without touching your live rack, and costs nothing when idle. You hear the kit with its groove before you commit. While a kit is playing, **Up** and **Down** move to the next kit and play that one instead, so you can step through kits the way you step through sounds. Enter loads the one you are hearing.
- **Patterns skim**: with a lane selected, click a pattern or use the arrow keys and it plays live in that lane. **Enter** or a double-click keeps it. Esc puts the original back — complete. Velocity, chance, roll, nudge, pitch, pan, the conditions and the lane's own length all come back exactly as they were.

Kits — what one actually contains

A kit is **an instrument plus its grooves**, never a session. Loading one brings the sounds, the pads' full sound design, the patterns and the feel controls that belong to a groove — the free-run tempo, the division, swing, speed and gate. A kit also carries the tempo it was written at, and loading its patterns fits the clock to it: a 70-BPM kit in a 140-BPM project comes in at half-time, a 140-BPM kit in a 70-BPM project at double-time, and the plugin says which it did. This happens however the kit arrives — picked from the list, dropped on the grid, or generated. It does not arm your record button, change your DAW sync, or bring somebody else's solos and lane locks into your project. Mutes do travel, because a muted lane is part of how a groove was written.

A kit also keeps its patterns as you left them: which ones exist, their names, colours and order, and the song chain with its repeats.

Three load buttons on every kit row: **full kit**, **sounds only**, or **patterns only**. Sounds-only over your own pattern is how you audition a kit against what you have written.

Pad and lane locks are respected by every load and every generation. Lock the kick pad and the kick survives ten kits. Lock a lane and your hat pattern stays while everything else changes.

If something in a kit cannot be resolved — a missing pack, moved content — it tells you, in an alert and on the pad itself. No silent half-loads.

Lanes — take one lane from another kit

The hats in that other kit are exactly right, and the rest of your kit is staying. You do not have to load the other kit to get them.

Click the **lanes icon** next to a kit's star. The list makes way for that kit's lanes, one tile each: its colour, its name, how long its groove is, and the groove itself, drawn as it will play on the pattern you have on screen. Nothing has loaded. Your kit is untouched.

Click a tile to hear the lane in your groove. It plays on top of your kit, in time with your sequencer, with your swing and through your own master chain at your master level, so the question you answer is "does this fit", not "is this a nice sound". When your song moves to the next part, the lane moves to its part too. If your sequencer is stopped, the lane plays on its own at your tempo. Click it again to stop it. **Cmd/Ctrl-click** or **Shift-click** builds a set and plays the lanes together, the open and closed hat as a pair. While a lane plays, its tile shows where the loop is: the part already played fills with the lane's colour up to a thin white playhead, hits light up as they sound, and the play mark pulses on every beat, so a bar of rest still visibly moves.

Up and **Down** step through the kits without leaving the view, and what you were hearing carries over: listen to lane 3 of one kit, press Down, and you hear lane 3 of the next. Hats against hats, down the whole library. **Left** and **Right** walk the tiles of one kit, playing each. **Esc** stops what is playing, then clears the selection, then goes back to the list.

Take it in whichever way fits the moment:

- **Drag it onto a pad or onto a lane** to replace that lane. While you hover, the lane underneath falls silent and the new one plays in its place, so you hear the swap before you let go.
- **Drag it between two pads, or onto the edge between two lanes**, to add it. The row opens where it will land: the pads step aside for an empty one, the lanes below move down for an empty row with the new groove already drawn in it.
- **Double-click** a tile, press **Enter** or click **ADD TO KIT** to put it on the first empty pad.
- **Right-click** a tile to replace a lane you pick from a list, or to copy it.

A set of lanes lands on neighbouring pads, in the order the tiles show. Every take is one undo step.

What comes with a lane. The pad's whole sound design — every layer, the inserts, both envelopes, the ducker's shape, the kick synth — and its groove in every part, with every lock: velocity, chance, roll, nudge, pitch, pan and conditions. The lane's own settings come too: its length, its division, Cut sound at pattern end, fine pitch. A taken lane is never muted; you took it to hear it.

How it fits your song. Parts are matched by name: the source kit's BREAK goes into your BREAK, its VERSE into your VERSE. Unnamed parts are matched by position. A part of yours that the source kit does not have gets the lane's main groove, the one you auditioned. A one-bar groove in a two-bar part

repeats, so every bar has real hits you can edit. A groove that does not divide your part keeps looping at its own length. A groove longer than your part lengthens the part, and your other lanes are repeated into the new bars so they sound exactly as before. The one exception is a song chain: there a longer part would change the timing of the whole song, so the groove is trimmed instead, and the plugin says so.

What stays yours. The trigger note, the output routing and MIDI learn belong to the pad the lane lands on, not to the lane. A locked lane refuses, and says why. Choke groups come in with a fresh number no other pad of yours uses, so an open and closed hat taken together still choke each other and nothing else. A ducker listening to a pad that did not come along is switched off, and the plugin tells you.

Find similar sounds

Right-click any pad and choose **Find similar sounds**. The browser ranks your entire installed library by how much it actually sounds like that sound.

It is not filename matching and it is not machine learning. It is a 21-dimension perceptual descriptor — spectral shape, decay, transient character, noisiness, the whole envelope — measured for every sound and compared honestly. Loudness is deliberately not a dimension: everything is peak-normalised before analysis, so a quiet clap and a loud clap are neighbours, as they should be.

Role mismatch is a soft penalty and never a filter, because a clap is very often the right answer for "something like this snare". The library shows it: in CORE, one clap's closest match is a snare, ahead of every other clap.

Every sound is measured once, when it joins the library, so the ranking is there the moment you ask for it. There is nothing to bake and nothing to wait for.

The SOUND MAP

The toolbar's map button turns the library into a picture.

Every sound in your library is a point, placed so that sounds that measure alike sit together. Nobody drew this: kicks form their own island, snares and claps sit adjacent, hats and open hats hold the far end, and percussion smears across everything because percussion genuinely is a catch-all. The families arrange themselves.

- **Your loaded kit is marked on it in white.** Two of your pads sitting on top of each other are two sounds of the same character, doing the same job in your kit. That is the insight a ranked list cannot give you.
- **The legend is a filter.** Click a family to show only it; click again for all. Filtered-out points stay as faint ghosts so the map keeps its shape and you never lose your bearings.
- **Zoom** from 1x to 40x with the scroll wheel at the cursor, drag empty space to pan, double-click empty space to fit. Names appear above 6x and are dropped rather than overlapped when they collide.
- **Opening the map from a pad centres it on that pad's neighbours.** FIT shows you the whole library again.
- **3D** (the **2D | 3D** chips in the map's header) flips the cloud into three dimensions and unfolds it in one motion. The 3D view grows out of the flat map, so nothing jumps. Orbit it, and the families become a galaxy.

Coordinates are cached, and new sounds are placed next to their neighbours rather than triggering a re-layout. A map that rearranges itself every time you add a folder would be worse than no map.

MY SOUNDS — your own folders, filed like factory content

Everyone has the folder. Twenty gigabytes of samples off five different drives, named by five different people, half of it called Audio 14.wav. It is the reason most people keep using the same eleven sounds.

Press the folder button in the browser toolbar, or just **drop a folder anywhere on the browser**, and MY SOUNDS takes it apart.

Your files are never moved, copied or renamed. The folder stays exactly where it is on your disk. THE_PATTERN 2 only reads it.

For every file, the scan answers three questions:

- **Is it a drum sound at all?** A loop — several hits on a grid, or a bar that never decays — is left out. So is tonal, vocal or musical material, anything far too long, and anything that does not resemble the drum library at all. A drum machine wants the one-shots.
- **What is it?** The role comes from the filename when the filename actually says, and otherwise from a vote of the nearest sounds in the library — the same 21-dimension descriptor that powers Find Similar. So "what is this" and "what is this like" can never disagree with each other.
- **How is it filed?** Tags are **inherited from the closest matches** in CORE and your installed packs, plus any library tag your folder path spells out — a folder called Techno Kicks tags its contents accordingly. Your sounds land under the same tag facets as factory content, instead of under a meaningless "custom".

The audio decides whether a file is a hit at all. A file called Snare Riser is still a riser, and it is left out. The name only decides which drum a hit is, and only when it actually names one. Filenames lie, and half of every real folder is Audio 14.wav, so those are decided by ear.

Your own folders are deliberately excluded from the reference set the scan learns from, so a folder can never end up tagging itself from its own guesses.

Point it at a whole sample drive. MY SOUNDS is built for the real thing: the top folder of a drive with hundreds of thousands of files. The scan runs in the background while you work, and it keeps what it has done as it goes, so closing the plugin halfway through loses nothing: the next time you open it, the scan carries on where it stopped. Anything longer than 12 seconds is left out as TOO LONG FOR A DRUM HIT without even being read, which is what keeps the songs, stems and field recordings on a drive from slowing it down. Hidden files, system folders and the little ._ files macOS leaves on shared drives are skipped, and a folder shortcut that points back at itself cannot send the scan in circles. With several instances of THE_PATTERN 2 open, in one DAW or in two, only one of them scans, and the others pick up its results.

The MY SOUNDS panel

Two halves, in working order.

FOLDERS — everything you have added, and what each one actually gave you: how many sounds went into the library, how many files were left out, and the progress bar while a scan is running. Per folder:

SHOW filters the list to it, **RESCAN**, **LOCATE** when a drive has moved and the row reads FOLDER NOT FOUND, and remove.

LEFT OUT — and this is the half that matters. Every single file the scan kept out, **with the reason written on it**, in its own words: LOOP - 7 HITS. TOO LONG FOR A DRUM HIT. SUSTAINED - NOT A HIT. SOUNDS LIKE A TEXTURE - NOT A HIT. NOTHING LIKE IT IN THE DRUM LIBRARY. Click any row to hear it. Press **KEEP** and it goes into the library anyway.

Nothing is ever silently discarded. A scanner that quietly throws away a fifth of your folder is a scanner you cannot trust, so every exclusion is listed, playable and reversible. Files you excluded yourself are grouped separately under LEFT OUT BY YOU, so your decisions never look like the scanner's.

New files appear on their own. When you open the plugin, anything added to or removed from a registered folder since last time is picked up quietly in the background — it only speaks up when it found something. Your project never waits for it: the plugin opens straight away, however big your folders are, and your own sounds join the browser a moment later.

Your sounds are first-class

Once a sound is in, it is in properly. It is fingerprinted, so it turns up in **Find similar sounds** and takes its place on the **SOUND MAP** among the factory sounds. It can be filtered by role and tag, starred as a favourite, dragged onto a pad, and picked up by **GENERATE** like anything else — which is the real payoff: generation starts drawing on your sounds, not just mine.

Right-click one of your sounds in the list for **Rename / edit tags**, **Leave out of the library**, and Show in Finder. Only what differs from the scan's own answer is stored as your edit, so BACK TO AUTO still reaches everything you left alone — and a smarter scan in a future update improves the sounds you never touched, without overwriting the ones you named yourself.

Saving your work into the library

Four saves, all of which produce first-class library content, indexed and filterable exactly like factory content:

- **Save kit** — snapshots the entire live rack, with a name, tags and BPM. Any loose samples are copied into your library and re-pointed, so the kit is portable.
- **Save lane as pattern** — right-click a lane header. That one lane becomes a reusable pattern: name (seeded from the sound), role (inferred — a closed-hat lane pre-fills "hat"), the BPM it was written at, and tags. **Length follows the lane**, so a 1-bar hat inside a 4-bar pattern saves as a 1-bar pattern, not three bars of padding. Micro-timing, exact velocities and every per-step lock are preserved, while the file itself stays an ordinary MIDI file that any DAW can read.
- **Save multisample** — the save icon in the sample editor header, or **Save to library** on a pad with more than one layer. The whole pad as one sound: every layer, the map, the layer offsets and the shaping, with any outside samples copied in. Drop it on a pad later and the stack rebuilds itself.
- **Save sound to library** — **Save to library** on a pad holding a single sample from outside the library. It is copied in with its role and tags, which is what makes a kit you built from desktop drops portable. The entry is hidden for a single sound that is already library content, because it already is.

A name that is already taken turns SAVE into an **OVERWRITE**, and overwriting keeps the item's ID — so re-saving is an edit of the same item, not a new one that orphans every kit referencing the old. A free name never overwrites anything.

Collect loose samples into the library

One item in the pad menu, when any pad holds a file from outside the library: every loose sample in the rack — all layers included — is copied into your user library and the pads are re-pointed at the copies. Trim, FX, layers and locks all survive. One undo step, and a toast tells you how many moved.

This is what makes a session you built from desktop drops portable to another machine.

Expansions

The store is where new content arrives. It fetches the hosted catalogue of packs, badges what is new, and downloads and installs inside the plugin. Every expansion is free.

DOWNLOAD ALL in the store's header gets every pack you do not have yet in one click; the button tells you how much that is. Packs download one after another: the one on its way shows its progress, the rest read **QUEUED**, and the header counts what is left. You can keep clicking DOWNLOAD on single packs while another one is coming in; they queue instead of waiting for you. The **X** on a row takes that pack out of the queue, and **CANCEL ALL** stops the lot. A cancelled download picks up where it stopped the next time you ask for it.

Downloads carry on when you close the store or the plugin window, and the store's button in the browser toolbar turns into a progress ring so you can see one is running. Each pack shows up in your library the moment it lands. If you quit your DAW halfway through, the plugin picks the download back up the next time you open it. If a pack cannot download, its row says why and offers **RETRY**.

If your library came from the PHIL SPEISER Control Center with CORE only, the first time you open THE_PATTERN 2 a **COMPLETE YOUR LIBRARY** card lists the free expansions you do not have yet, all ticked, with the total size on **DOWNLOAD**. Untick the row for none, or click **CHOOSE...** to pick from the list. **NOT NOW** (or Esc) closes it; the store keeps them for later.

When the store has packs you do not have yet (a new release, a new version of one you have, or packs your library is missing), a small card drops in under the browser's toolbar the next time you open the plugin. **DOWNLOAD** (or **DOWNLOAD ALL**) starts them right there and opens the store to show them coming in. **NOT NOW** puts the card away. You see each pack on this card once, on this machine, across every instance. The download button's dot stays lit until you have had the store open once.

Connecting your content

The first time you open THE_PATTERN 2, a card asks where your library should live. **GET CONTENT** downloads your library once, CORE first and then the free expansions, and the card tells you how much that is. **INCLUDE THE FREE EXPANSIONS** is ticked for all of them; untick it for CORE alone, or click **CHOOSE...** to pick packs from a list you can filter by typing, with **ALL** and **NONE** for whatever the filter shows. Anything you leave out stays in the store for later. You can play as soon as CORE is in, and the expansions keep arriving in the background: **USE THE DEFAULT LOCATION** keeps it with the rest of your PHIL SPEISER content, and **CHOOSE A FOLDER...** puts it anywhere, an external drive included. Already have it? **LOCATE FOLDER** points the plugin at it. **CONTINUE WITHOUT CONTENT** lets you start

on your own sounds. The library sits in a THE_PATTERN 2 CONTENT folder with Packs and User inside. If the drive is not connected, the card says so and offers **TRY AGAIN**, and pads that failed to load while content was missing retry themselves once it appears.

GENERATE — the kit generator

Open the generate panel from the browser toolbar. Two ways in:

- **A genre pill** — Dance/EDM, Hip-Hop/Trap, Retro/Synth, Organic/Live, Pop, Breaks. Each pill draws from its own genre first: Pop from the Pop kits, Breaks from the Breaks kits.
- **Words** — type what you want ("dark 90 bpm boom bap with a dusty snare") and it is read into tags and a tempo. A genre you name leads: "melodic techno" grows from a techno kit, not from the house kit that merely shares the word melodic. A broad word such as electronic never brings in a kit of another genre on its own, and orchestral kits come only when you ask for them. A STARTER kit counts as its genre when you name it: "future bass" can grow from FUTURE BASS STARTER. Name two styles ("acoustic house", "lofi hip hop", "pop/rock") and the kits that carry both come first, then the kits of either. The tempo counts too, the one you name or the one the style usually has: drum and bass grows from a drum and bass kit, not from a 92 BPM one. The kit still plays at its own tempo unless you name one. For an electronic request an acoustic kit comes last, and the other way round. Ask for a length ("16 bars", "8 Takte") and the main pattern is written out to it (see **Longer patterns** below); "lots of variation" or "no variation" sets how much it changes on the way. Words about the sound lean every pick the way the **ENERGY** lever does, as long as you have not moved it: "soft", "warm", "mellow", "chill" towards gentler sounds, "hard", "punchy", "crisp", "energetic" towards harder ones, and "not too hard" or "no harsh sounds" towards the gentle side. "Hard techno" names a genre, not a sound.

Your words can switch lanes off: "no snare", "without claps", "avoid open hats" leave those lanes silent, and "only hats" or "just kick and hats" keep those alone. Ask for swing ("swung", "a little swing", "heavy shuffle") and a straight groove gets it; a groove that already swings in its own timing is left as it is, so it never swings twice. "2 bars" makes the pattern 2 bars long.

Name an artist or a record. "Drums like Daft Punk's Random Access Memories" or "Burial-style 2-step" works as well as naming the genre. If it doesn't know a name, it looks it up online first. That can take a few seconds, and the GENERATE button reads **THINKING** while it works.

When the kit arrives, one line tells you what it made of your words, something like *"Here's a warm disco groove with a live feel."* If a name turned up nothing, the line says so and the kit follows the rest of what you wrote.

If the name was all you wrote and it turned up nothing, you get a question instead of a guess: *"I don't know Zorblax Quinnberg - what does it sound like?"* Answer in a few words, like "dark, fast, lots of hats", and press GENERATE. Press GENERATE with the field empty and you get something simple to start from.

When something you asked for can't be done, a short note says so instead of dropping it quietly: the pattern is made in 4/4 when you ask for 7/8, 16 bars is the longest pattern, a style the library has no kit for yet is made from the closest one, and an "only" lane the kit doesn't have keeps the kit whole. Reading your words needs an internet connection; the genre pills and every reroll work offline.

What generation actually does

I was pickiest about this part, because the obvious implementation sounds terrible.

Procedural generation — euclidean patterns, density parameters, random sounds by role and tag — sounds random, because it is. What you want is something that sounds like a producer made it.

So generation starts from **one authored kit**. The pool is every kit in the library matching your tags; one is chosen, and **its groove comes across with it**. Kick, snare and clap stay exactly as that kit wrote them, unless your words ask for a different one, because the relationship between them is the groove. The other lanes stay too, unless VARIATION re-grooves them.

Then every sound is replaced by a **close fingerprint neighbour** of that kit's own sound for that lane — same role, **level-matched** to the sound it replaces, **pitch-matched** when both sounds have a clear pitch, and kept from landing on top of another lane's sound. Not a random draw from a tag: a close relative, at the authored level. Novelty without losing the kit's character.

And then it judges the result. Several candidate sound sets are built for the same groove, and the one that measures closest to the original authored kit wins — spectral balance, how much the lanes collide in frequency and time, how much the kit rings, level spread, punch. All measured from what is already known about the sounds, so it takes a fraction of a second and nothing is rendered.

Multisampled instruments — the drums of OAKWOOD, RATTAN and OBSIDIAN — stay multisampled. Their velocity layers are what make a played groove sound played, so a generate only swaps one for another multisample that is genuinely close, and otherwise keeps the kit's own.

The authored kit is the curation. Everything else is a careful variation on it.

And it arrives as a song. The kit it grew from is a song -- its DROP or CHORUS plus its INTRO, VERSE, BUILD, BREAK and OUTRO -- and the generated kit brings every one of those parts along, played by the new sounds, in the same colours and the same order. A lane that got a new groove carries it into every part where that lane simply played the main groove; where a part does something of its own on that lane -- the roll in a BUILD, the thinned hats in a VERSE -- the part keeps it. Open CHAIN, press ARRANGE, and the song is laid out. A kit that grew from a one-pattern kit arrives as one groove: **MAKE SONG** writes the rest.

Longer patterns

The authored kits are 2- and 4-bar grooves. When your words ask for more bars, or you have chosen a longer length with **BARS**, the main pattern is written out from the kit's own material, the way you would arrange a loop by hand:

- **8 bars** play the groove, then an answer to it: about a third of its hits change, and a turnaround ends the phrase.
- **16 bars** play the groove, the answer, the groove coming back with a smaller change of its own, and a second answer on other lanes, ending on a light fill. No four bars repeat note for note.

The kick and the backbeat stay the groove all the way through, apart from the fill. What changes is the hats, the open hat, the percussion and the cymbals, and each one takes what the kit itself plays there in its other parts (the hats of its VERSE, the percussion of its INTRO). Where the kit has nothing else for a lane, it takes the closest groove for that drum from the kits of the same genre, matched for density and swing and never more than twice or less than half as busy. A lane with neither holds back for two bars and comes in, and a running 16th hat drops to its 8ths. Lanes change one at a time until the answer is different enough, and a lane that would overshoot it is passed over for a lighter one. **VARIATION** sets how different: at its default about a third of the hits, more as you raise it, and "lots of variation" in your

words adds to that. The turnaround is a soft two-hit pickup and a hat roll in the last beat, so an 8-bar loop marks its phrase without rolling every time round. A groove that repeats the same bar four times gets that turnaround in its fourth bar too; a groove that already does something in its fourth bar keeps its own. A drum that plays less than once a bar gets the pickup at most.

BARS sticks. Once you choose a length with BARS, every GENERATE and REGENERATE keeps it: a longer one is written out as above, a shorter one plays the first bars of the groove (the rest stays stored and comes back when you raise BARS). Words that name a length win for that request. Until you choose one, each kit brings its own length.

The levers

Three wells on the result page, which persist for the session and feed every reroll:

- **DENSITY** — how busy the groove that gets picked is.
- **ENERGY** — how hard the kit hits.
- **VARIATION** — how likely a non-rhythm lane is to be re-grooved, with the replacement feel-matched for density and swing to the pattern it replaces. It also sets how far apart the parts are that **Reroll pattern** steps through.

Double-click any lever to return it to the engine default.

Rerolls

- **REGENERATE KIT** — same vibe, new roll. Each press grows from another kit that still matches your words. When every one of them has had its turn, the rest of your genre's kits come next, as long as they are still close matches; then kits from a **related style** get theirs — only ones whose kick, backbeat, hats and sounds sit as close to your genre's kits as those kits sit to each other, played at your genre's tempo — and a note tells you when that starts. If no style is that close, the broader kits that match your words come next, best match first, with no other genre on them (after the one or two future bass kits, the electronic dance kits), again with a note. Then the round starts again. When a kit comes back, its sounds move on: every lane carries on from the sounds it already had in this vibe instead of drawing the same ones again.
- **REROLL SOUNDS** — keep the grooves, change the kit. The song's parts stay as they are.
- **REROLL PATTERNS** — keep the sounds, change the grooves, and take the parts of the kit the new grooves come from. Tempo is preserved.
- **Reroll sound** and **Reroll pattern** in a lane's right-click menu — one lane at a time, which is how you fix the one thing that is wrong instead of rolling the dice on everything.

Rerolling a sound works in rounds. It starts with the kit's own sound and its closest relatives and moves outward one reroll at a time, staying the same kind of drum for as long as the library has one (a clap may become a snare). After eight rerolls the next round starts close to the kit's own sound again and moves out again, taking sounds you have not heard yet wherever they are nearly as close, so the lane breathes instead of drifting away. It never brings back one of the last three sounds, nor one that sounds almost the same as them, such as a copy in another pack. **REROLL SOUNDS** keeps the same memory per lane, while staying closer to the kit's character. Your **MY SOUNDS** folders are part of the library it walks through.

Rerolling a pattern works the same way: every reroll swaps in a real part from the library, never an edit of the one you have. It starts with the part closest to the lane's own and moves outward, each one audibly different from everything the lane has already played this round, and after eight it starts close again. Parts from your kit's genre come first; a part from another genre comes in only where it is clearly closer, and orchestral parts only when the kit is orchestral. Every part is chosen for how it sits with the rest of this kit: with the kick and the backbeat, in the gaps, at a sensible density. A lane that carries the genre (a four-on-the-floor kick, an offbeat hat, a backbeat on 2 and 4) only takes parts that keep it. **VARIATION** sets how far apart the parts are. It never plays the lane's own part back as a "new" one, never repeats itself while there is something it hasn't played, and fills the whole pattern at whatever length it is, from a single bar to sixteen.

Locked pads and locked lanes are never touched. A locked lane in a kit that makes the pattern longer keeps looping at its own length. The generation, including its animated reveal, is a single undo step.

Master FX

Eight module cards sit between your drum mix and the world. Each card's header is its switch, and each wears its own hue so you can read the rack at a glance.

The sends, in parallel:

- **REVERB** — a drum-tuned algorithmic reverb: size, damping, stereo width, pre-delay up to 100 ms, return level. The card draws its decay tail.
- **DELAY** — tempo-synced from 1/4 down to 1/32T, feedback to 95 %, a tone filter inside the feedback loop, ping-pong, return level. The card draws its taps on the beat grid.

The chain, in signal order:

- **TONE** — a high-pass from 20 to 500 Hz, a tilt of plus/minus 6 dB around roughly 650 Hz, and an air shelf up to +6 dB at 12 kHz. Three controls that cover most of what a drum bus needs.
- **COMP** — a bus compressor: threshold, ratio at 2, 4 or 8, attack and release, a sidechain high-pass from 20 to 500 Hz on the detector only, make-up gain from 0 to +24 dB (**MAKE**), parallel mix and a gain-reduction ladder.
- **DRIVE** — up to 24 dB into a soft clip, with parallel mix and an output trim. Light 2x oversampling by default; the **HQ** tag in its header switches to 4x with anti-aliasing, like the pad DRV.
- **WIDTH** — mid/side side gain from 0 to 200 %, with a bass-mono crossover so the low end stays centred.
- **LIMITER** — always last: ceiling, release, and its own gain-reduction ladder. It looks 1.5 ms ahead, so it turns a peak down before it arrives instead of squaring the transient off. THE_PATTERN 2 reports those 1.5 ms to your DAW as latency whether the limiter is on or off, so switching it never moves your timing, and the DAW lines everything up automatically. Aux outputs carry the same 1.5 ms, so they stay in time with the main mix.
- **OUTPUT** — the pinned column on the right: master volume from -60 to +12 dB, a dB-scaled stereo meter and clip holds.

Pads routed to an aux output are post-insert and post-fader but **bypass the master FX**, which is the correct behaviour for stems — your DAW gets the pad, not the glue.

Getting Sound Out

Three drag handles sit at the right of the controls strip. **Drag** any of them straight into your DAW — or **click** one without dragging and you get a save dialog instead, for the times the DAW you are aiming at will not take a drop. On a narrow window the three fold into one EXPORT chip: dragging it gives you the MIDI clip, and clicking it opens a panel holding all three — **each row is a drag handle in its own right**, so the audio loop and the stems still go straight into your DAW however narrow the window is. Click a row instead of dragging it and you get that row's save dialog.

- **MIDI** — a standard MIDI file of the pattern. Swing, micro-timing and ratchets are baked into the note timestamps; pitch and pan locks are written as CC20 and CC21, scoped by CC25 so a DAW clip envelope cannot smear one pad's locks across another; chance, conditional trigs and per-lane polymeter phase are expanded deterministically over the least common multiple of every lane's cycle (up to 64 passes), so the clip plays the full logic out. Every pattern chip is a drag handle too.
- **AUDIO** — the pattern rendered offline through a cloned sampler, master FX included, as a **seamless loop**: the tails that run past the end wrap around to the start, so the loop actually loops.
- **STEMS** — one WAV per sounding lane, with the pad's inserts and its sends included and the master inserts bypassed.

Files carry the kit's name and the pattern's meter. A drag-out is named after where it came from — 1998 A.mid, 1998 A LOOP.wav, 1998 A KICK.wav — and the MIDI file's time-signature event is the pattern's own meter, not a hardcoded 4/4. The kit name survives a session reload and undo.

Chain export. With CHAIN on, all three handles export the **whole chain as one linear clip** named after the kit: every entry printed with all its repeats, with a time-signature event wherever the meter changes between entries. Audio and stems render linearly with up to four seconds of ring-out, trimmed where the output falls below -60 dBFS — because a chain is a piece of a song, not a loop, and nothing should wrap.

Muted lanes and lanes with no sound are skipped, and the probability kernel is deterministic, so the same drag twice gives you the same file twice.

MIDI out to the host

The plugin declares a MIDI output. In SEQ, what leaves is the sequencer's own notes plus the CC20/21/25 lock stream; in THRU, the passthrough. So your DAW can record the pattern as MIDI live, or the drum machine can drive another instrument — no drag-out needed.

Host automation

121 parameters are published to your DAW with stable names, indexed by pad rather than by sample: per pad **Volume, Pitch, Pan, Cutoff, Decay, Reverb send and Delay send**, plus **Master Volume, Reverb and Delay level, Comp threshold and mix, Tone tilt, Drive, Width and Limiter ceiling**.

It works in both directions. Automation from the host reaches the rack safely, and moves you make in the plugin are mirrored back with proper gestures at 30 Hz — so a knob drag records as automation, and kit loads, undo, session restore and MIDI-learn moves keep your DAW's parameter list current instead of letting a stale value stomp your rack on reload.

Multi-out

One main stereo pair plus eight stereo aux outputs, all declared active so Live's VST3 routing behaves. Route any pad to Out 1 to 8 — Out 1 is labelled Kick, because that is what it is usually for — and optionally **keep it in the main mix as well**, when you want the aux as a tap for a sidechain rather than a move.

A pad routed to a bus that is not enabled falls back to main, so this is always safe to set.

MIDI Learn

Global learn mode, with nearly 200 mappable targets and up to 120 mappings at once: every pad's volume, pitch, pan, reverb send, delay send and solo, every master FX parameter, and the sequencer's swing, gate, lane mutes, lane solos and pattern arming.

CC values map perceptually — logarithmic for frequencies, linear for dB — so a fader sweep feels right rather than mathematically correct. Armed zones show an overlay and their CC badge across the pad grid, the sequencer, the controls and the master strip, and the mappings are saved with your DAW session.

CCs 20 to 27 are reserved for the sequencer's own lock and cut messages.

The Session

- **Everything is saved with your project** — all pad parameters, the master FX, all your patterns with their locks, lane lengths, names, colours and order, the song chain, the MIDI-learn map, and the layout you were working in. An exported instance persists the live rack, so kit changes and pattern edits you make **in the DAW** survive a reload, not just what was there at export time.
- **Self-contained sessions.** Library content re-resolves through the Control Center, but samples you dropped in from your desktop are **embedded into the saved session** and recovered on load. A project you built from loose files opens correctly on a machine that never had those files.
- **When something cannot be found**, the pad says MISSING SAMPLE, the lane stays visible with its notes intact and its name in warm red, and the chrome reads WAITING FOR CONTENT. Nothing hides, nothing is silently dropped, and the reference stays pending so connecting your content later fills it in.
- **Tempo** follows your DAW by default, or runs free from 30 to 300 BPM.
- **Undo covers everything.** Kit loads, a pattern dropped into a lane, a skim you kept, a whole generation with its animated reveal, a loop import — each is one step, and Cmd/Ctrl+Z brings the sounds and the patterns back together.

Look, Feel and Help

- **The theme** is machined hardware: a dark graphite chassis, white for what is on, gold for values and numbers, a steel blue for buses and sends, green for MIDI drags, and a fixed family of eight identity hues that tie a pad to its lane, its notes, its waveform clips and its layer cards.
- **Tooltips everywhere**, per zone, in **English, German, French, Spanish and Italian**. The readout lives in the header, so nothing pops up over what you are looking at.
- **Menus** are titled, grouped under headings, with the destructive item last, alone, and behind a "Yes, clear..." confirmation. Shortcuts are printed in your platform's own words.
- **Zoom** the whole UI from 0.5x to 3x by dragging the corner grip.
- **The AI assistant** can see your session — tempo, meter, bars, swing, which pattern is playing, the grid division and speed, whether a chain is running and where it has got to, what MIDI coming in is allowed to do, and a compact map of every active lane — so "why does my hat lane sound wrong" and "why don't my keys play the pads" are both questions it can actually answer. It needs an internet connection.
- **The documentation viewer** shows this manual inside the plugin.
- **Bypass** is a soft master bypass with a full-screen notice, so a bypassed instance can never be mistaken for a broken one.
- **Settings** — the settings button in the header. **Language** switches every tooltip; the controls keep their names, because those are the same words in every studio. **Tooltips** turns the help text off once you know your way around, and the header readout goes quiet with it. **Default view** picks which of the four layouts a new instance opens on, without touching the layout you are in or one saved with a session. **Reset zoom** puts the window back to 100% if a corner-grip drag left it somewhere unusable — on a small screen, or after moving between displays. **Tutorial** opens the walkthrough video in your browser; the written manual is the **DOCS** button beside it.
- **The browser's gear** holds the content folder, **Refresh library**, **My sounds...** and **Browse expansions...**.

How to Use It — Real-World Workflows

From a loop to a song, in one window

This is the whole instrument in one pass, and you never leave the plugin.

1. Drag a drum loop you like onto the sequencer. Take **LIBRARY** as the result, compare **HEAR LOOP** with **HEAR RESULT**, and press **APPLY AS NEW KIT**. The groove now plays on a clean kit from your own library.
2. Click the **SYNTH** chip on pad 1 and drop a reference kick on the KICK editor. **MATCH** rebuilds it; APPLY the closer answer and drag the last pitch point onto the root of your track.
3. Open the **SOUND MAP**. If two white markers sit on top of each other, those two pads are doing the same job. Right-click one of them, **Find similar sounds**, and take a neighbour from a clear part of the cloud.
4. Right-click the pattern chip and choose **Make song from ...**. The intro, verse, break and outro are written from your groove (plus the build, in a club song), fills included, and the CHAIN panel opens on the song.
5. With CHAIN on, drag the **MIDI** handle into your DAW. The whole song arrives as one clip.

A beat in sixty seconds

Open the plugin, go to Kits, press play on a few until one moves you, load it. Hit the pattern chips to hear its grooves. Right-click the pattern chip and make a fill. Open CHAIN and make it VERSE x3 then the fill. Drag the MIDI out.

Start from a reference groove

Drag the reference loop onto the sequencer. Take **YOUR KIT** as the result and check the tempo chip against what your track is actually doing. Apply. You now have the reference's rhythm played by your sounds — a starting point, not a copy, because you will change it.

Rebuild a loop from your own sounds

You love a loop, but you can't use the file: it has a bass under the kick, a room on everything, and it isn't yours. Drag it onto the sequencer and pick **LIBRARY**. Give it a moment, then press **HEAR LOOP** and **HEAR RESULT** in turn. If one drum is off — say the snare is too bright — step its row's arrows to the next match and listen again. Then **APPLY AS NEW KIT**. You get a clean kit of one-shots from your own library, playing the loop's groove, with every pad free to be processed on its own.

Beatbox the idea before it's gone

Start THE_BRIDGE, click the mouth mark and press **LISTEN**. Make sure MODE is on SEQ, arm **REC**, start playback and beatbox the groove in your head. It lands on the grid. Tidy two hits, then GENERATE with the lanes locked to hear your groove on a different kit.

Flip a break

Drag the break onto the sequencer and choose **CHOP**. Press EDIT CUTS and fix the two cuts the detector got wrong. Apply. Now mute a piece, move two hits, drop the chance on a third to 60 %, and set the hat lane to three bars so it walks against the loop.

Build a kit around one sound you love

Load the kick you love onto pad 1 and lock the pad. Type the vibe into GENERATE. Every kit it rolls keeps your kick and builds around it. When one lane is wrong, right-click that lane and reroll just its sound.

Borrow the hats from another kit

Your kit is right except the hats. Go to Kits and click the **lanes icon** of a kit whose hats you like. Click its hat tile: the hats play in your groove, in time, through your master. Press **Down** to hear the same lane of the next kit, and the next, until one sits. Then Cmd/Ctrl-click its open hat as well, so the pair plays together, and drag both onto your hat lanes. Your old hats fall silent while you hover, and you hear the new pair in their place before you let go. They arrive with their choke intact, their groove in every part of your song, and one undo step to take them back.

Make your own sample folder usable

Drop the folder on the browser. Let it listen — it runs in the background while you keep working. Then open MY SOUNDS and read the LEFT OUT list: play a few, and KEEP the ones you disagree with. Now filter the Sounds list by kick and your source chip, and see your own kicks filed next to mine. From here on, Find Similar and GENERATE reach into your library too.

Find the two pads doing one job

Open the SOUND MAP with your kit loaded. Look for two white markers sitting on top of each other: two sounds of the same character, doing the same job in your kit. Right-click one pad, Find similar sounds, and take a neighbour from a different part of the cloud. Nothing else about the kit changes.

Rebuild the kick from your reference

Drop the reference kick on pad 1's KICK editor. Listen to both answers with HEAR RESULT, check them against HEAR ORIGINAL, and APPLY the closer one. Now it is yours: click the **TUNE** chip so the tail lands on a note, then drag the last pitch point to the root of your track. SHIFT-drag LENGTH down until the tail clears the next hit. If the rebuilt click is not quite it, match again with KEEP ITS CLICK and let the file supply the attack.

Tune the kick to the track

On a synth kick, read **TAIL** on the PITCH tab and drag the last pitch point to your root, or move **TUNE**. The CLICK and the TOP stay where they are, so the attack does not change. On a sample kick, look at the pad's pitch readout: it shows the detected note. Set it to the root of your track, then open PIT and give it a few semitones of drop with a short decay, so the attack keeps its click and the body lands in key.

Make a live set out of it

Switch MODE to TRIG. Now the patterns are under your fingers: hold a pattern's note and it plays for as long as you hold it, stopping cleanly at the bar. Map the lane mutes to a controller with MIDI learn and perform the arrangement.

Hand it to the mix

Route the kick to Out 1 and keep it in the main mix, so your bass can sidechain from it without you bouncing anything. Or drag the STEMS handle and hand your mixer one WAV per lane, pad processing included and master glue left off.

Pro Tips and Creative Techniques

- **Lock before you generate.** A locked pad and a locked lane turn GENERATE from a slot machine into a tool: keep what works, roll the rest.
- **Sounds-only over your own pattern** is the fastest kit audition there is. Your groove, their sounds.
- **Use the ducker instead of volume automation.** Point the bass pad's DUCK at the kick pad. It follows the kick's real envelope, so it stays right when you swap the kick.
- **Pump against a kick that is not there.** Set the bass pad's DUCK to TRIG GRID 1/4 with SHAPE DRAW. You get the classic four-to-the-floor pump over a pattern that never plays a kick on every beat — and you keep the pad you would have wasted on a muted trigger.
- **Draw a gate, not a pump.** SHAPE DRAW on a long loop or chopped pad, TRIG GRID 1/8, then cut a few square steps into the curve. That is a rhythmic gate, and because the shape is yours it can be anything the grid can hold.
- **Keep the click, swap the body.** Put a TOP on the synth kick you like, then step through KICKS. Every factory kick loads under the same click, so you are auditioning sixteen bodies against one attack.
- **ALIGN after every TOP change.** A new top sample, a new START or a new X-OVER changes how the two layers line up. One press puts them back in phase, and the dB it reports is what you would have lost.
- **B before the bold move.** Press B, make the drastic change, then flip to A. An empty slot starts as a copy, so nothing is lost.
- **Drive with the sub clean.** Keep the sub clean when driving is on by default for a reason: push DRIVE with TYPE HARD or FOLD and the grit stays above 100 Hz, while the sub stays round and in tune.
- **Nudge beats swing** on a single step. Swing is a feel for the lane; NUDGE is a decision about one hit, and it overrides swing where you use it.
- **Short lane lengths are the cheapest arrangement trick in the plugin.** A 3-bar perc lane inside a 4-bar pattern gives you four bars of variation you never programmed.
- **Chance at 60 to 80 % on ghost notes** makes a programmed hat breathe. Chance on a crash makes a loop stop being a loop.
- **X:Y conditions are how a four-bar pattern becomes an arrangement.** Put the fill hits on 4:4 and they arrive once every four passes.
- **WAVE view shows the overlap.** If a tom's tail visibly runs into the next hit, it is doing it in the mix too.
- **Copy the groove off the loop you imported** and paste it at half strength onto your own lanes. The feel of the reference, on your programming.
- **Alt-drop to layer** instead of replacing. A clap on top of a snare, with the clap nudged 8 ms late, is a different snare.
- **Randomize sound design twice.** The first roll is rarely it. The second one often is, and both are one undo away.
- **Read the LEFT OUT list once.** It is the fastest way to learn what the scan considers a loop — and two minutes of KEEP presses turns a folder it was cautious about into a folder that is fully yours.
- **Name the folder well before you add it.** A folder called Techno Kicks tags its contents from its own path, so good folder names do half the filing for you.

- **Save the lane, not the pattern.** A hat lane you like is worth more as a reusable pattern than as part of one beat.
- **Collect loose samples before you archive a project.** One click, and the session stops depending on your desktop.

Keyboard Shortcuts and Gestures

The sequencer grid

Gesture	Result
Click an empty step (DRAW)	add a hit at velocity 85 %; drag on to paint
Double-click an empty step (SELECT, NOTES layer)	add a hit
Double-click a hit (NOTES layer)	remove it
Double-click a hit (value layer)	reset it to the layer default; a selected hit resets the selection
Right-click a hit (value layer)	type its value; a selected hit sets the selection
Click a hit (SELECT)	select it; a click on one hit of a selection selects only that hit (a drag from it still takes them all)
Click a hit (DRAW)	remove it
Click a hit (value layer)	hear it and select only it; its value stays (a drag from a selected hit still takes the selection)
Shift-click a hit	add or remove it from the selection
Drag a hit	move the selection, locks intact
Alt-drag a hit	move a copy (Alt can come or go mid-drag)
Cmd/Ctrl-drag from an empty step	rubber-band lasso (on a value layer, from a hit too)
Shift-drag	rubber-band lasso that adds to the selection
Drag a hit (value layer)	change it; drag on sideways to set every hit you cross, diagonally for a ramp. SELECT carries the value from where it was (Shift for fine), DRAW sets it at the pointer
Drag from an empty step (value layer, DRAW)	set every hit you cross at the pointer's height
Drag a selected hit (VELOCITY, CHANCE, NUDGE, PITCH, PAN)	move every selected hit by the same amount, Shift for fine
Cmd/Ctrl-click a lane name	select every hit on the lane (Shift adds)
Cmd/Ctrl held while dragging a hit	bypass grid snap, free timing, whether Cmd/Ctrl went down before the press or during the drag
Right-click a cell (NOTES, or an empty step on a value layer)	copy / cut / paste / duplicate / delete
Right-click a lane header	the lane menu

Click and hold a lane header	audition that pad
Click a pattern chip	play it (the grid follows)
Alt-click a pattern chip	edit it while another keeps playing
Double-click a pattern chip	rename it
Drag a pattern chip along the row	reorder
Drag a pattern chip off the row	export that pattern as MIDI
Shift-drag a pattern chip	its trigger clip (the launch note, one pass long)
Right-click a pattern chip	rename / colour / make a fill / duplicate / copy / paste / chain / clear / delete
Drag or scroll a CHAIN repeat well	how many times that entry plays
Drop a folder on the browser	add it to MY SOUNDS
Right-click one of your own sounds	rename, edit tags, leave it out, show in Finder

The lanes view

Gesture	Result
Click the lanes icon on a kit row	open that kit's lanes; nothing loads
Click a tile	hear the lane in your groove; click again to stop
Cmd/Ctrl- or Shift-click a tile	add it to the set and hear the set together
Left / Right	the previous or next tile, playing it
Up / Down	the previous or next kit, keeping the lanes you were hearing
Drag a tile onto a pad or a lane	replace it; the lane underneath falls silent while you hover
Drag a tile between two pads, or onto the edge between two lanes	add it; the row opens where it will land
Double-click a tile, Enter or ADD TO KIT	add it on the first empty pad
Right-click a tile	hear, add, replace a lane you pick, or copy it
Esc	stop it, then clear the selection, then back to the list

Keys

Key	Result
B	DRAW tool (toggle); from STAMP, DRAW

S	SELECT tool
T	STAMP bar (toggle)
1 to **7**	edit layer: velocity, chance, roll, when, nudge, pitch, pan (press again for notes)
0	back to NOTES
Left / Right (NOTES)	move the selection one cell; Shift or Alt one 1/192 step, Alt+Shift a bar
Up / Down (NOTES)	move the selection to the lane above or below; a note says why when a hit cannot go
Up / Down (value layer)	step the selection's value; Shift for fine
Left / Right (value layer)	select the previous / next hit on the lane; Shift adds it
Cmd/Ctrl+Z / Cmd/Ctrl+Shift+Z	undo / redo
Cmd/Ctrl+C / Cmd/Ctrl+X / Cmd/Ctrl+V	copy / cut / paste at the caret
Cmd/Ctrl+A	select every note in the pattern
Cmd/Ctrl+D	duplicate the selection after itself
Cmd/Ctrl+Shift+D	duplicate to the next bar, position in bar kept
Delete / Backspace	delete the selection
Esc	one step per press: clear the selection, then exit focus view, then close the stamp bar or go back to NOTES
Return (loop card)	APPLY
Esc (loop card)	cancel the import
Cmd/Ctrl+F	the browser search
Arrow keys (browser, Patterns)	skim patterns live in the selected lane
Enter (browser)	load the selected sound, keep the skimmed pattern, or load the selected kit

The chop editor (EDIT CUTS)

Key or gesture	Result
Click a piece	hear it
Double-click the waveform	add a cut
Double-click a cut	remove it
Drag a cut	move it, snapped to transient or grid and to a zero crossing

Cmd/Ctrl while dragging	place the cut freely
Left / Right	with a cut selected: nudge it one grid step (**Shift**: 1 ms); otherwise step through the pieces and play each
Delete / Backspace	remove the selected cut
Space	play the whole loop / stop
F	fit the whole loop in view
Z	zoom to the selected piece
Cmd/Ctrl+wheel / wheel	zoom / scroll
Drag the ruler	down zooms in, up zooms out, sideways scrolls
Cmd/Ctrl+Z / Cmd/Ctrl+Shift+Z	undo / redo inside the editor

The sample editor

Key	Result
[and **]**	previous / next layer
1 to **9**	select that layer
E	the selected layer's envelope page
M	the velocity x round-robin map
A	ALIGN
+ / - / 0	zoom in / out / fit
Click the waveform	hear the pad; higher is harder
Shift-drag a START / END flag	place it freely instead of snapping to the attack
Double-click the ruler	see the whole sample
Esc	unwind one level at a time, then close

The KICK editor

Key or gesture	Result
1 / **2**	PITCH / AMP curve
Space	play the kick
Click the line	add a point
Drag a point	move it; pitch snaps to notes, **Shift** moves between notes

Double-click or right-click a point	remove it
Drag a ring	bend the segment
Scroll over a ring	bend in small steps
Double-click a ring	straighten the segment
Drop a kick file on the editor	MATCH it
Right-click elsewhere	the KICK menu
Esc	close the MATCH card, then an open value, then the editor

Everywhere

Gesture	Result
Vertical drag on a slider	change the value
Shift-drag	fine
Double-click	reset to default
Right-click a value	type it
Drag the corner grip	zoom the whole UI

Specs

Type	Drum machine instrument: 16-pad sampler plus step sequencer
Formats	VST3, AU (macOS), AAX
Pads	16, up to 16 voices each, up to 32 sample slots per pad
Playback	4-point Hermite interpolation for pitch and sample-rate changes
Levelling	Every sample levelled to a -12 dBFS peak as it loads (boost capped at +24 dB); a new sound on a pad keeps the pad's mix; EQ and filter moves loudness-compensated
Layer modes	Stack, velocity split with crossfade, round-robin with humanize
Per-pad chain	Transient, bitcrush, saturation (2x oversampled, 4x + anti-aliasing in HQ), filter, 4-band EQ, compressor, auto-pan, AHDSR, pitch envelope, ducker
Slicing	Transient detection, up to 64 slices, manual editing, note-mapped or sequential
Stretch	Pitch-preserving WSOLA to a chosen bar length at host tempo
Synth kick	Pad 1. Pitch and level curves with up to 16 points each and bendable segments; BODY with punch, harmonics, 4x-oversampled drive (SOFT, TUBE, HARD, FOLD) with a clean-sub split, clip and low cut; tuned noise CLICK; sampled TOP with 24 dB/oct crossover and ALIGN; free or tempo-synced length; 16 factory kicks; A/B
MATCH	Rebuilds a kick file as synth settings, as SYNTH ONLY or KEEP ITS CLICK, scored, with level-matched before/after listening
Loop import	Tempo, bars, downbeat, per-hit timing and velocity, and each hit's drum type, from 4/4 drum loops at 60 to 200 BPM, up to 2 minutes; results YOUR KIT, LOOP'S SOUNDS, LIBRARY (rebuilt from your library, up to 12 matches per drum) and CHOP (up to 16 pieces, with a marker editor)
Patterns	up to 16, named and coloured, in your own order; up to 16 lanes, 1 to 16 bars in 4/4, per-pattern time signature; song chain of up to 16 entries with x1 to x16 repeats; MAKE SONG and ARRANGE
Resolution	Fixed 1/192 internal; grid divisions 1/4, 1/8, 1/16, 1/32, 1/64, 1/8T, 1/16T, 1/32T as a view
Per-step locks	Velocity, chance, ratchet 1 to 8, micro-timing, pitch, pan, 23 conditional trigs
Polymeter	Per-lane loop length, in bars or exact cells
Groove	Swing 0 to 70 %, speed 0.5x / 1x / 2x, humanize, groove copy and paste
Modes	SEQ, THRU, TRIG; DAW sync or free-run 30 to 300 BPM
Outputs	1 main stereo pair plus 8 stereo aux outs
Master FX	Reverb and delay sends, tone EQ, bus compressor, drive (2x oversampled, 4x + anti-aliasing in HQ), stereo width, look-ahead limiter

Latency	1.5 ms, constant (the master LIMITER's look-ahead, limiter on or off), reported to the DAW
Export	MIDI, seamless loop WAV, per-lane stems, chain export; drag straight to the DAW
MIDI	MIDI input, MIDI output of the pattern, pattern switching by note, nearly 200 MIDI-learn targets
Automation	121 host parameters, two-way
Library	Kits, sounds and patterns, indexed by role and tag, with favourites, similarity search and the sound map
Content	CORE library (a one-time download inside the plugin), packs from the in-plugin store, your own folders via MY SOUNDS, your own saves
On your computer	Loop analysis, LIBRARY, MATCH, find similar and MY SOUNDS run locally; nothing you drop in is uploaded
Online	The CORE download and the store, the typed GENERATE prompt, the AI assistant
UI	1250 x 750, zoomable 0.5x to 3x, four layout presets
Languages	Tooltips in EN, DE, FR, ES, IT

Stuck, or found something this manual doesn't cover? Write to me at philspeiser.com/support. I answer support myself.