

PATTERNING 2



User Manual

*This document is a work in progress.
Missing something? Typos? Something confusing?
Let us know and we'll try to fix it!*

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OVERVIEW

DEFINITIONS

SONG

A Patterning song contains any number of patterns and drum kits, as well as MIDI mapping information and timeline data.

PATTERN

A pattern is a collection of 8 loops which play simultaneously. Patterns also reference a drum kit and tempo changes, if applicable.

LOOP

A loop is sequence of up to 64 steps that controls playback of a single instrument. Loops within a pattern can have independent step durations and lengths, creating complex rhythmic relationships within a pattern.

STEP

A step contains playback information for a single point of time within a loop. A step contains velocity data as well as other automation layer information such as coarse tuning, panning, and ratcheting.

DRUM KIT

A drum kit is a collection of 8 instruments. A song can have any number of drum kits, each of which can be referenced by any number of patterns.

INSTRUMENT

An instrument contains sample and MIDI playback settings for a single track.

SAMPLE

A sample is a sound file with associated information : name, track name, default sample gain, start and end points.

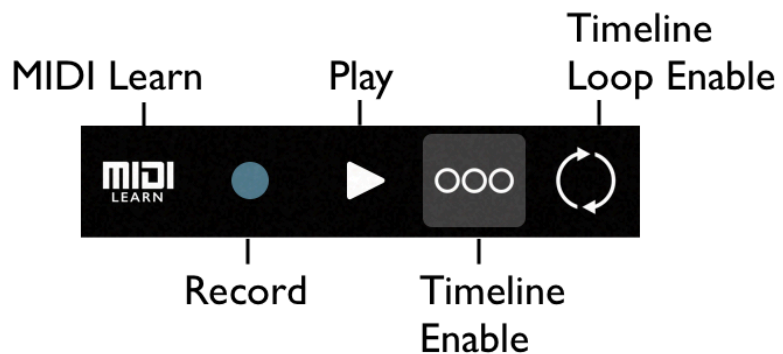
NAVIGATION



Main Menu & Transport

Patterning's interface is divided into 7 pages : FILE, PATTERN, RECORD, DRUM KIT, SONG, MIXER, and FX. These are accessible from the menu bar on the top of the screen.

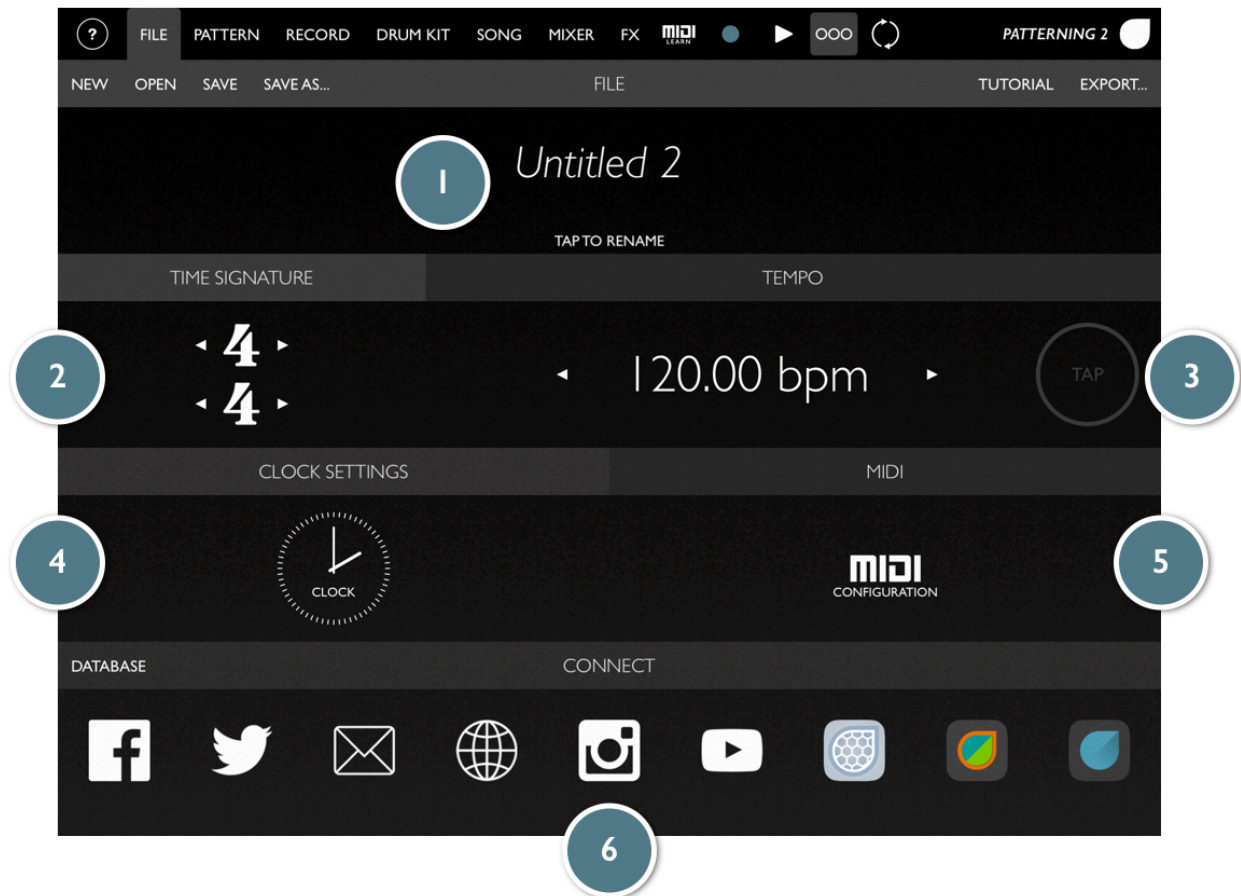
The main menu also has buttons for enabling MIDI Learn, as well as the transport buttons (from left to right) : Record, Play, Timeline Enable, and Timeline Loop Enable.



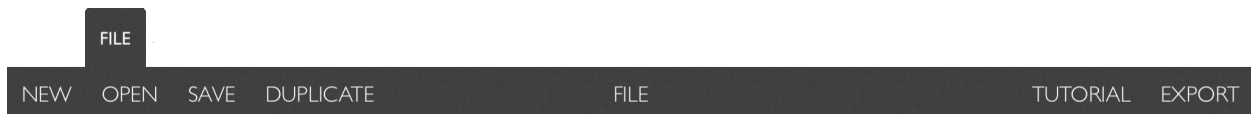
The record and play buttons are also available on the PATTERN and RECORD pages. When record is enabled, incoming MIDI messages and changes to automatable parameters are recorded to the current pattern.

On the far left of the menu bar is the help button (?) which brings up this user manual via the web. Please note you can save this manual (from Safari) to iBooks as a .pdf for offline browsing.

FILE



The FILE page is used for a variety of tasks.



Along the top bar of the FILE page are the song file management actions : NEW, OPEN, SAVE, and SAVE AS...

- NEW will create a new song.
- OPEN will open the song browser window for opening or deleting songs, and for setting the default new song template.
- SAVE writes any changes to the current song to the database.
- SAVE AS... creates and immediately opens a copy of the current song.
- TUTORIAL loads the Patterning Tutorial song.
- EXPORT opens the File Export window for bouncing your song to audio files, Ableton Live Set or to create a song to share. See [FILE EXPORT](#).

FILE ① displays the name of the currently loaded song. It will appear in italics if any changes to the song are not yet saved. Tap on the song name to rename it.

AUTOSAVE

Though you must “SAVE” a song to store it to the database, any changes you make while using the app are autosaved every few minutes into a temporary file. When launching the app, this temporary file is re-opened, allowing you to get right back to work regardless of whether the song was saved to the the songs browser.

DEFAULT SONG TEMPLATE

You can choose a song to use a template for new songs from the song browser. Swipe left to right on a song to use it as the default song template. This feature is great for re-using your favorite MIDI mappings and other settings when you make a new song.

TIME SIGNATURE

Because Patterning allows you to create patterns and loops of different lengths, the concept of time signatures is not always applicable. The *time signature* ② setting does not affect the step duration or step count in a loop, as these can be different for different pattern. However, there are a couple of situations when time signatures are used in Patterning. The song time signature controls the following settings :

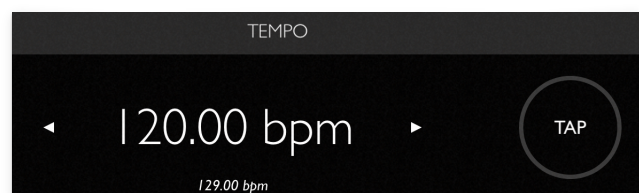


- The measure length in the TIMELINE.
- The measure length when manually setting the render length while exporting audio.
- The quantized launch time when switching between patterns.
- The Ableton Link Quantum setting.
- The metronome accent and measure length.

In addition, individual loops have a time signature that is used with DIVIDE mode. This is independent of the song's *time signature* setting.

TEMPO

The *Tempo* ③ slider allows you to edit the tempo for the current song. It also displays the current *effective tempo*, just below the song tempo. The effective tempo shows the current tempo taking into account the current clock source (Link, MIDI, etc), and/or pattern tempo changes (see [TEMPO](#)).



The *Tap* button allows you to tap in a tempo.

CLOCK SETTINGS

The *Clock Settings* ④ menu is for configuring the clock source and *Pattern Launch* mode.

Pattern Launch Quantize

This setting controls when a pattern will be launched. The default setting is one measure, meaning that tapping on a new pattern, or using the *Next Pattern* or *Previous Pattern* buttons from the PATTERN page will wait until the beginning of the next measure before launching.

This can be set anywhere from *OFF* (launch patterns immediately) up to 16 measures.

Clock Source

There are a whole slew of clock source options to suit different needs.

Inter-App Audio (IAA) clock uses IAA for getting clock information from an IAA host app, such as Garageband or AUM. To use this, you must have the Main Output of Patterning connected to IAA.

MIDI Clock Receive enables MIDI Clock as the clock source for Patterning. While this works fine, it is not the recommended clock source for Patterning unless you need to be using external MIDI equipment as the clock source. If possible, it is preferable to use Patterning as the clock source to control external MIDI equipment for various technical reasons.

MIDI Clock Send enables MIDI Clock to be sent from Patterning to external gear. This can also act as a way to send the Ableton Link or IAA clock to external MIDI gear.

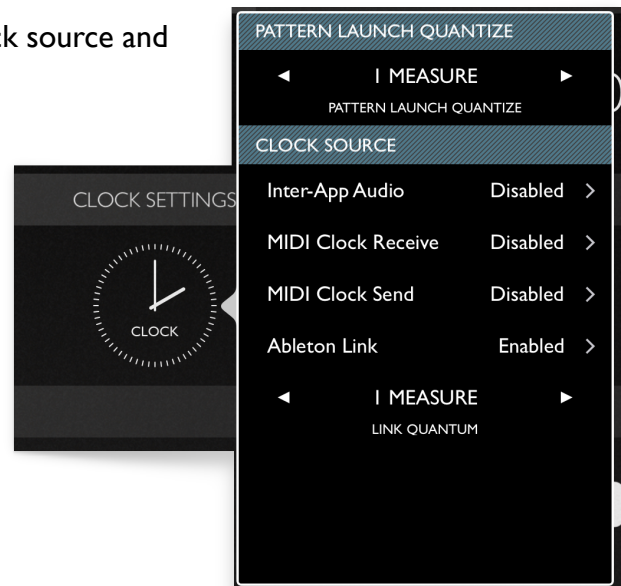
Ableton Link allows apps to share a clock across a wireless network (or on a single device). With Patterning 2, Start/Stop is also supported. Link is the preferred method for synchronizing clocks across apps or devices. [Read more about Ableton Link and see a list of compatible apps.](#)

When using Ableton Link as the clock, the *Link Quantum* setting will control how where the clock should begin in relation to the shared clock.

MIDI Configuration

The MIDI Configuration ⑤ window controls song level settings for MIDI. With Patterning 2, Instrument MIDI settings have been moved to the PATTERN page's MIDI editor.

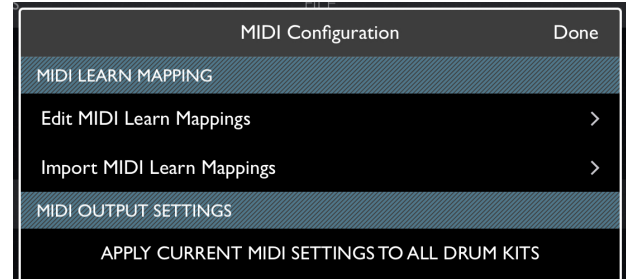
Edit MIDI Mapping Mappings



Edit MIDI Learn Mappings brings up a list of all MIDI Learn Mappings, allowing you to edit their scaling and to delete unused mappings. See [MIDI Learn](#).

Import MIDI Learn Mappings

Select this to import MIDI mappings from another Patterning song.



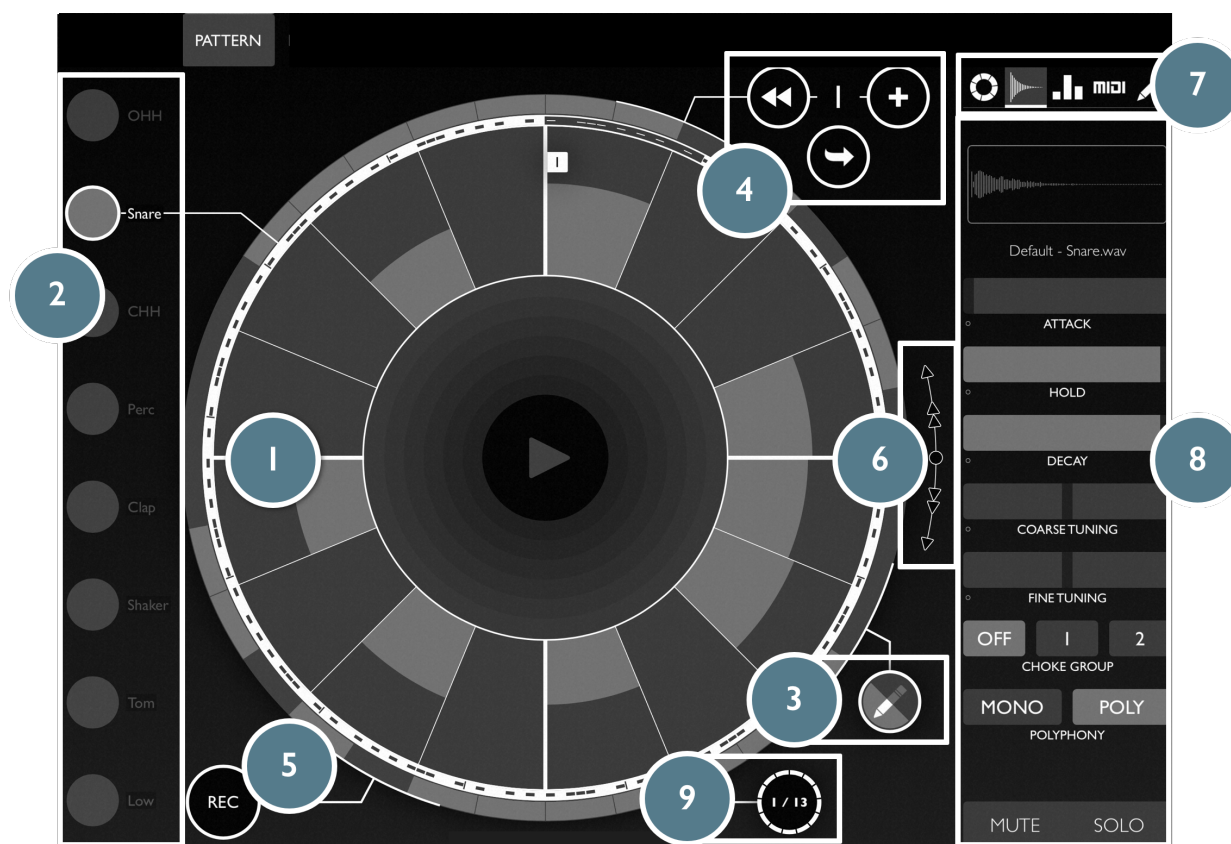
MIDI Output Settings

Use the APPLY CURRENT MIDI SETTINGS TO ALL DRUM KITS button to copy the MIDI Output settings from the current drum kit to all other drum kits in a song.

CONNECT

The Connect [⑥](#) section contains various links to Olympia Noise Co on social media and to other apps. Use the Mail icon to report a bug or send feature requests. You can also get support from the Olympia Noise Forum (forum.olympianoiseco.com).

PATTERN



The PATTERN page is where (most) of the magic happens. Here's an overview of the interface for the PATTERN page.

Pattern Editor

The *Pattern Editor* ① is the interface for editing rhythms and automation layers in Patterning. It visualizes the current pattern using 8 concentric rings, one for each of the loops in the pattern. Each ring is subdivided into wedges of equal sizes, corresponding to the number of steps in the loop.

Touch anywhere in a step to edit it. Drag towards the outside of the circle to increase the velocity of the step, making it louder. Dragging inwards will make the step quieter. Dragging all the way in will set the velocity to 0, disabling the step. You can drag around the loop to quickly edit or create multiple steps.

Loop Selector

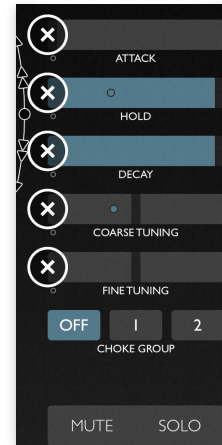
The *Loop Selector* ② selects which loop in a pattern to edit. You can also select a loop by touching an unselected loop in the pattern editor.

Pen Tool

The *Pen Tool* ③ has two modes : *Draw* and *Erase*. *Draw* mode edits the value of a step when touching it, while *erase* clears the value.

Hold down the *Pen Tool* button to bring up the *Pen Echo* menu. *Pen Echo* mode is a special editing tool that allows you to draw in multiple values across a loop at a repeating interval. For example, with *Pen Echo* set to *On* and the *Pen Echo Interval* set to 4, editing a step in the *Pattern Editor* will cause edits to be “echoed” 4 steps later. Echoes don’t wrap around to the start of loop.

When *Erase* mode is enabled, parameters which have active automation on the current loop will display a *X* button. Tap the *X* to quickly clear the automation of the parameter for the current loop.



Pattern Transport

The *Pattern Transport* ④ is used to switch between adjacent patterns or create new patterns.

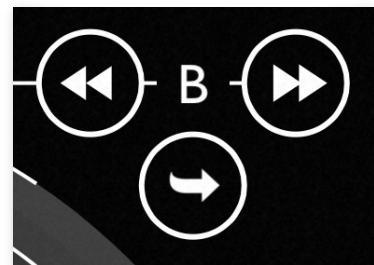
The *Previous Pattern* and *Next Pattern* buttons switch to an adjacent pattern. If *Pattern Quantize Launch* is enabled, it will wait until the appropriate time to switch patterns.



The *Duplicate Pattern* button creates a copy of the current pattern and switches to it immediately.



The *New Pattern* button creates a new blank pattern with the same loop settings (step count, step duration, swing, etc.) and switches to it immediately. The *New Pattern* button is visible when you are in the last pattern of the song, replacing the *Next Pattern* button.



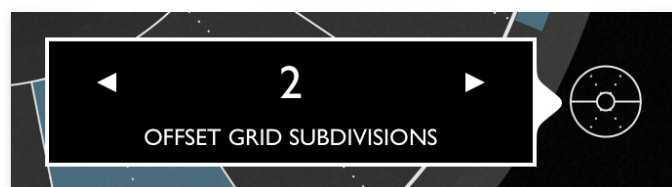
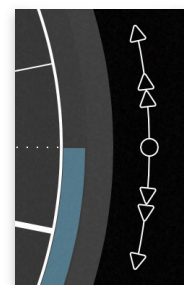
Record

The *Record Button* ⑤ enables realtime recording. See [Record](#) for more info.

Pattern Rotate

The *Pattern Rotate* ⑥ control allows you to rotate a loop, changing the starting location. The outer, single arrow controls rotate by a subdivision of a step, while the double arrows “nudge” the loop by a single tick at a time - 1/96th of a quarter note. The center button resets the rotation.

After pressing any of the rotate buttons, the *Offset Grid Subdivisions* button will appear. Tap this button to configure the subdivision to use when making rotations. With a value of 1, the single arrow buttons will rotate by the loop




by a whole step. With a value of 4, one quarter of a step, and so on, allowing you to easily make musical rotations of a loop.

Loop Pages

NEW in PATTERNING 2.2

Loops can be broken into pages to aide in the editing of longer loops. After initially selecting a loop, the pattern view will automatically follow the currently playing page as the loop progresses.

Touching the pattern editor or the **LOOP PAGE**  button will lock the pattern editor to the current page for editing. Tap the **LOOP PAGE** button to toggle between page-following and page-editing modes.





When editing a page, arrows appear next to the **LOOP PAGE** button for moving forward and backwards through the pages of the loop.

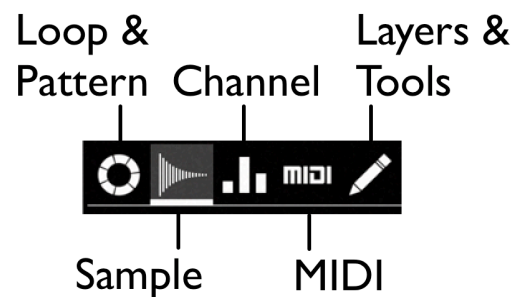
When a loop has more than one page, a thick white circle will appear around the loop to indicate the current page and give an overview of the entire pattern. In addition, the current page number is displayed at the top of the loop editor.

See [Loop Settings](#) to learn about setting the page size.

Editor Panel

The **Editor Menu**  selects the mode for the **Editor Panel** . The **Editor Panel** displays different controls based on the current mode.

There are five editor sub-panels (from left to right) : Loop & Pattern, Sample, Channel, MIDI and Layers & Tools.



Many of the parameters on the editor panel have advanced settings, such as randomization or quantization. If you see a small circle to the left of a parameter name, you can tap on the parameter name to open the parameter's advanced settings menu.

Loop & Pattern

The *Loop/Pattern Editor* is where you configure loop and pattern related settings.

Drum Kit and *Tempo* are pattern-level parameters, the remaining parameters relate to the current loop.

Pattern Settings

Drum Kit

Tap *Drum Kit* to bring up a list of the current song's drum kits, and to change the drum kit assignment for the current pattern. Read more about [Dynamic Drum Kits](#).

Pattern Tempo Changes

The *Tempo* button displays the tempo menu for the current pattern.

Patterns can trigger a tempo change when launched. Tempo changes can happen instantaneously or gradually (accelerando / ritardando), using the slew setting. Pattern tempo changes are enabled via the *Tempo* menu.

A pattern can have one of three *tempo change* modes : *None*, *Song*, or *Pattern*.



In *Pattern* mode, the pattern will override the current tempo and change to the pattern's tempo.

In *Song* mode, the pattern will trigger a tempo change back to the song's original tempo, if required.

In *None* mode, the pattern will do nothing to the tempo on launch, staying at the current tempo. *None* is the default mode.

To enable a tempo change for the pattern, set *Tempo Mode* to *Pattern*. This will reveal the tempo and slew settings for the current pattern. Tempos can range from 20 to 400 BPM, and slew time can be set anywhere from 0 to 20 seconds. When the slew time is above 0, the tempo will gradually increase or decrease to the new tempo over that amount of time.

Pattern tempo changes override the song's tempo until another tempo change occurs.

Some Notes on Tempo Changes :

Pattern tempo changes are disabled when using Inter-App Audio Clock Sync or MIDI Clock Receive.



When connected to Ableton Link, the default tempo behavior is to not override the shared Link tempo when opening a song. However, if any pattern tempo changes are enabled, Patterning will take control of the shared Link tempo and behave as described above.

When exporting audio, patterns with tempo OFF mode will use song's tempo. Tempo slewing is also disabled when exporting audio. In addition, if the song has tempo changes, the "song" audio export mode is disabled. Instead, consider

recording the output of Patterning in realtime to an Inter-App Audio host app such as GarageBand or AUM.

Loop Settings

One of the most essential and unique features in Patterning is the ability for each loop in a pattern to have its own duration. The following settings are applied to each loop individually within a pattern. However, you can use the *Apply to All* button to quickly copy these settings to the other loops in the current pattern.

Mode, Step Duration, and Steps

The *Mode* setting for the loop can be set to *Standard* or *Divide*.

Standard mode is the default loop mode. In *standard* mode, a loop's length is determined with the *Step Duration* and *Steps* parameters.

Divide Mode, in contrast, divides a measure into subdivisions of equal duration. As an example, in 4/4 time with the *steps* parameter set to 13, the entire loop will be a single measure long, with each step 1/13th of the total duration.

When in divide mode, a *Measure* button will appear for setting the loop's measure length. The measure here is independent to the song's time signature.

Swing is disabled in divide mode.

As of Patterning 2.2, a loop can have up to 512 steps. Long press on the *STEPS* arrows to make the loop longer or shorter by one page.

Page & Grid Settings

Tap just below the *Steps* control to open up the *PAGE* and *GRID* settings for the current loop.

The *PAGE SIZE* control sets the number of steps per page in the current loop. *PAGE SIZE* can either be set to the song's default value or to a value between 4 - 64. Tap *SET AS DEFAULT* to set the current page size as the default for all loops within the current song.

The grid determines the frequency of thick lines in the Pattern view. It does not affect playback, only the visualization of the loop. When set to *DEFAULT* the loop will use the default grid spacing for the song, which has an initial value of 4. You can change the current loop grid spacing in the range 3-8. If you want to change the default grid spacing for the song, tap *SET AS DEFAULT* to update all loops using the *DEFAULT* setting.



Auto - Rotate

The *Auto-Rotate* setting will make the loop rotate itself by a number of steps after each time through the loop.

Swing

Swing sets the amount of swing applied to the loop. In *Divide* mode, swing is disabled.

Playback Mode

There are 5 loop *Playback Modes*. *FWD*, *BKWD*, *PEND1*, *PEND2*, and *URN*.

FWD is forward, and steps are played in clockwise order. In *BKWD* mode, steps are played backwards, moving counter-clockwise through the circle. *PEND1* or Pendulum 1 mode is forwards, and then backwards, repeating the first and last steps on the turnaround. *PEND2* is the same as *PEND1*, but without repeating the first and last steps. In *URN* mode, steps are played in a random order, never repeating a step until all steps have been played.

Sample

The *Sample* sub-panel gives you access to the sample playback parameters such as volume envelope and tuning.

The *waveform viewer* shows the waveform of the current sample. Tap the *waveform viewer* to open the [Sample Library](#) for selecting and importing samples. See [Sample Library](#).

Volume Envelope

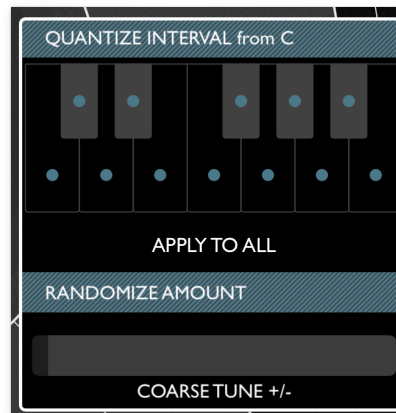
The three volume envelope parameters are *Attack*, *Hold*, and *Decay*. Together, these determine the amplitude envelope of the instrument. *Attack* is the amount of time for the sample to fade-in from silence to full volume. *Hold* is the amount of time (as a percent of the remaining sample duration) to stay at full volume before fading out. *Decay* is the amount of time to fade out the sample after the hold period ends.

Tuning

The *Coarse Tuning* and *Fine Tuning* parameters change the playback speed of the sample.

Quantized Coarse Tune

The *Coarse Tuning* parameter can be quantized to allow only certain intervals to be played, making melodic use of samples in Patterning much easier. Tap on the *Coarse Tuning* parameter name to bring up the parameter's advanced settings menu.

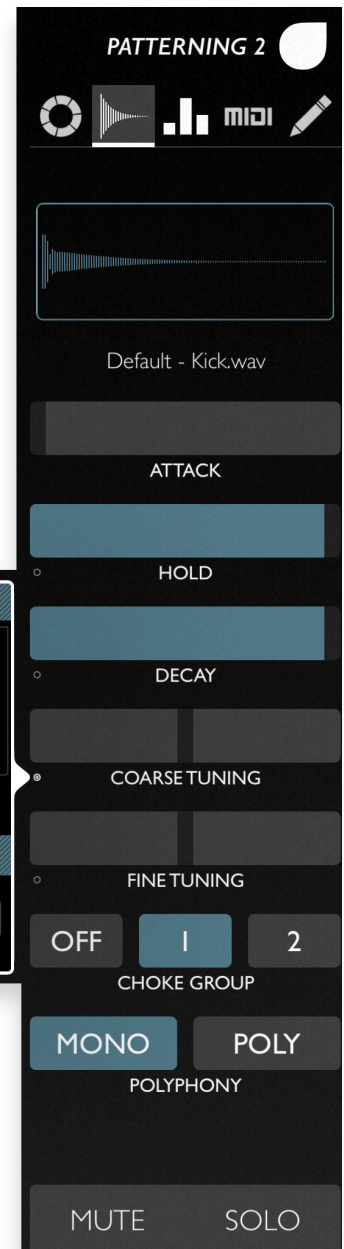


From there, use the keyboard to select the intervals to quantize to, *relative to the note C*. For example, enabling the note D from the quantize keyboard will allow transpositions of +2 semitones or -10 semitones. Enabling G will allow +7/-5 semitones.

This can be combined with randomization to create random melodies.



Please note that if the original sample is not tuned to C, the actual sounding pitch of your transposed sample will not be "in tune" with the notes off the quantize keyboard.



Use the APPLY TO ALL button to copy the Quantize Coarse Tune setting to all instruments in the current drum kit.

Choke Groups

A *Choke Group* assigns an instrument to a group in which only one instrument can play at time. The common use case is an open hi-hat / closed hi-hat pair. When the closed hi-hat sample is triggered, you want to immediately stop the open high-hat sound from ringing out. Assigning them to the same choke group allows only one of the instruments to play at a time.

Polyphony

[Video : Polyphony](#)

The *polyphony* parameter determines how many instances of an instrument can be playing at the same time. The options are *MONO* and *POLY*. When set to *MONO*, only one voice can play a time per track. This can be used to cut short longer samples when they re-triggered. In *POLY* mode (default), up to 32 voices can be playing at the same time.

Mute / Solo

See [Mixer](#).

Channel

The *Channel* sub-panel is for configuring additional instrument settings such as filter, effect sends, panning and volume.

Filter

Each instrument has a multi-mode filter for adjusting the frequency response of your instrument.

Adjust the *cutoff frequency* and *resonance* of the filter using the filter graph. Drag up and down to change the *resonance*, or left and right to change the *frequency*.

The available *Filter Types* are *Bypass*, *Low-pass*, *Band-pass*, and *High-pass*.



- *Bypass* : the filter is bypassed.
- *Low-pass* : the filter allows frequencies below the cutoff frequency to pass through the filter.
- *Band-pass* : frequencies around the cutoff frequency pass through the filter.
- *High-pass* : frequencies above the cutoff frequency pass through the filter.

Effect Sends

Delay Send and *Reverb Send* determine the amount the instrument that is sent to each effect. See [FX](#).

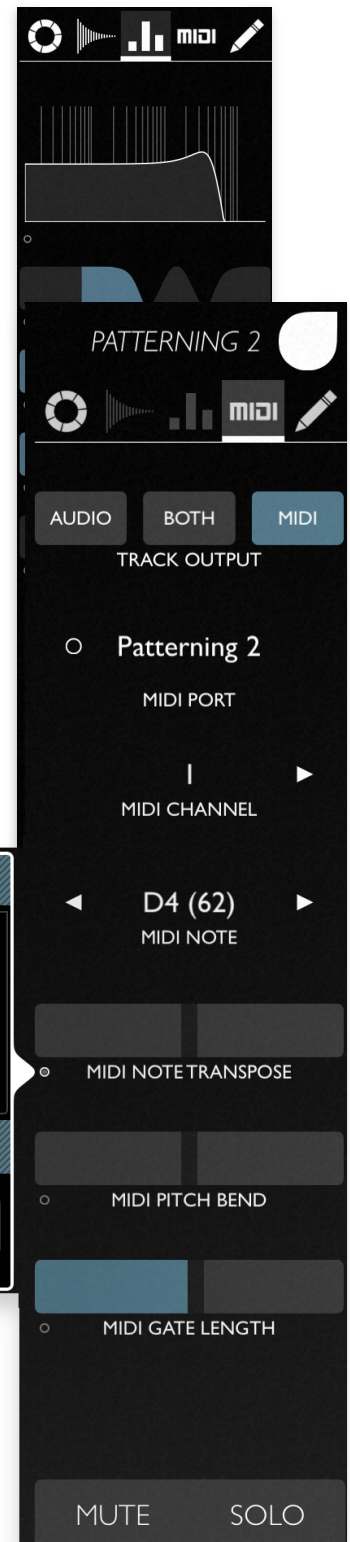
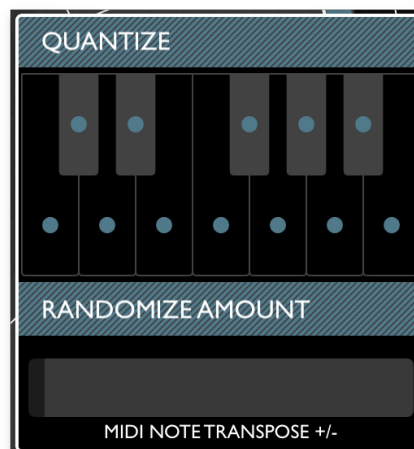
Panning & Volume

The *pan* control sets the stereo positioning of the sample.

The *volume* fader sets the volume of the track. This parameter cannot be automated. Instead, consider using the velocity of notes to create changes in volume.

Mute & Solo

The *Mute* & *Solo* buttons mute (disable) and solo (enable while disabling non-soloed instruments) the instrument. The parameter cannot be automated, but is stored with the current Drum Kit.



MIDI

The *MIDI* sub-panel configures the MIDI output for the instrument.

Track Output sets the output type for the instrument. The options are *Audio*, *Both*, and *MIDI*. *Audio* mode plays audio from the track only, while *MIDI* mode disables audio and only sends MIDI. *Both* allows the track to send both audio and MIDI.

Use the *MIDI Port*, *MIDI Channel*, and *MIDI Note* controls to configure MIDI output for the instrument.

Please note that when using virtual MIDI ports (i.e. “Patterning 2”) to send MIDI between apps, both the receiving and sending app must use the same port. So if you are sending MIDI data using port “Patterning 2,” you should also set the receiving app to receive on port “Patterning 2.”

MIDI Note Sequencing & Quantization

The *MIDI Note* and *MIDI Note Transpose* parameters are added together to determine which MIDI note is played on a given step.

Both parameters can be automated with layers, however they exist as two separate parameters to allow transposition of sequences and easier editing.

To make melodic MIDI sequencing easier, MIDI notes can be quantized, limiting the available notes to pitch classes from a scale or of your choosing.

Tap below the MIDI Note Transpose slider to display the MIDI Note Quantize and Randomize controls.

Other MIDI Settings

MIDI Pitch Bend sends pitch bend messages to the current instruments MIDI output. It can be used to record pitch bend automation or set a detune amount.

MIDI Gate Length sets the duration of MIDI notes in relationship to the loop’s step duration. The default is 50%, meaning that if the loop’s step duration is a quarter note, the MIDI note duration will be an eighth note. Durations longer than 100% will create notes longer than the step duration. If a MIDI note with a duration longer than 100% is followed by the same MIDI note on the following step, the notes will be tied together to create a longer duration. This parameter can also be automated and recorded.

Additionally, MIDI CC’s can be sent via the *Layers View*.

Layers & Tools

The *Layers & Tools* panel sets the current editing layer for the loop and also has some useful editing controls.

Editing Controls

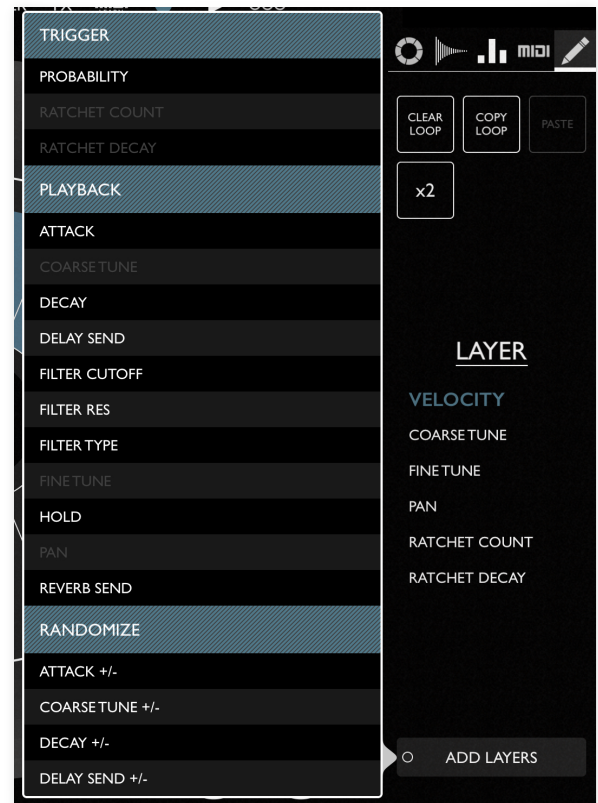
Use the *Clear Loop*, *Copy Loop*, *Paste Loop* buttons to do common editing tasks with the current loop.

The x2 button doubles the length of the current loop, copying all step data to make the loop twice as long. The maximum loop length is 64 steps, so x2 only works with loops 32 steps or less.

Automation Layers

In addition to *velocity*, a loop can sequence changes to instrument parameters like *coarse tune* or *pan*. Any recorded automation shows up here, and you can also draw in automation for each step in a loop.

Almost all parameters of the instrument can be automated, along with parameter randomize amounts, MIDI CC messages, and trigger data like probability and ratcheting.



The *LAYER* selector chooses the current layer for editing in the *Pattern View*.

When editing a non-velocity layer on the *Pattern View*, a thick line shows the parameter's value before automation. The automation value will temporarily override the value for the step.

Remove automation on a step using the eraser tool. You can clear automation for a layer and remove it from the layer selector by swiping right-to-left on the layer's name in the *LAYER* selector.

Some common layers are displayed by default, but many more can be accessed by pressing *Add Layers* on the bottom of the *LAYER* selector. The *Add Layers* menu is broken into 4 sections. *Trigger*, *Playback*, *Randomize*, and *MIDI CC*.

Trigger Layers

Trigger layers include probability and ratcheting controls.

Probability

The percent chance that a step will be triggered. 100% means always trigger, 0 % means never trigger.

Ratcheting

[Watch Video : Ratcheting](#)

Ratcheting is a sequencing technique in which an instrument is triggered multiple times within a step, creating a “stutter” effect.

Add ratcheting to a loop by selecting it from the *Layer* selector. There are two ratchet parameters : *Ratchet Count* and *Ratchet Decay*.

Ratchet Count determines the number of re-triggers within a step. The default (off) value is 1. With a ratchet count of 2, the step will be divided into two equal parts, and the note will be triggered twice. A ratchet count of 7 will create 7 equally spaced notes within the length of a single step.

Ratchet Decay sets the relative velocity of each subsequent trigger. 100% means no change : each trigger will have the same velocity of the first. Values below 100% will decrease the velocity on each subsequent trigger, while values above 100% will make each trigger louder than the previous value.

Playback Layers

The *Playback* layers encompass many parameters relating to the instrument : tuning, filter, panning, and non-CC MIDI parameters such as pitch bend and transposition.

MIDI Note + MIDI Note Transpose

The *MIDI Note* and *MIDI Note Transpose* layers are used to modify the MIDI note (see [MIDI Note Quantization](#)).

MIDI Gate Length

The length of outgoing MIDI notes can be sequenced as well. The range of this parameter is 25% to 200% of the step length.

If a step with a gate length of greater than or equal to 100% is followed by another note of the same pitch, the two notes are tied together, with the later step’s gate length overriding the original note. You can chain more than two notes together in this manner to create longer MIDI note durations.

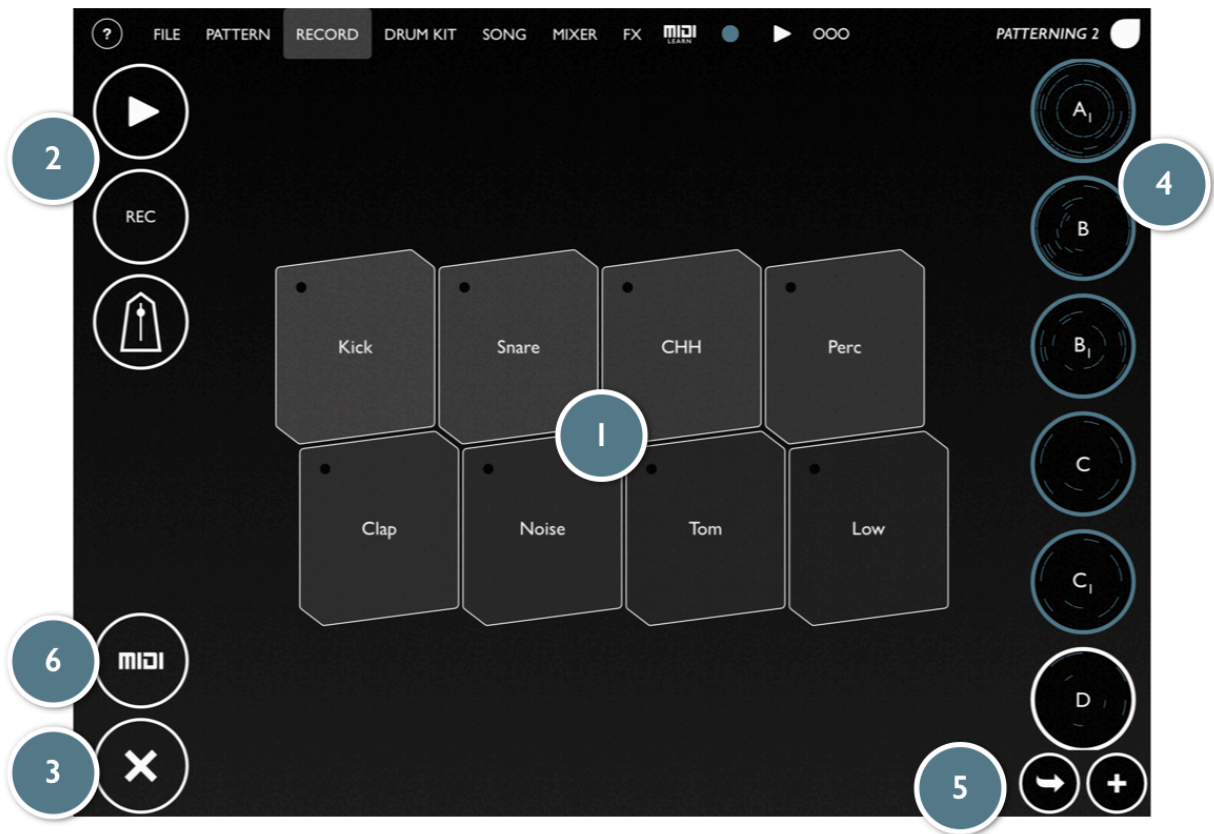
Randomize

Parameters can also be randomized on a per-step basis. The parameter randomize layer is labelled *parameter name +/-*. You can also randomize *velocity* using the *velocity +/-* layer. See [Randomization](#) for more info about parameter randomization.

MIDI CC

On MIDI enabled loops, you can also create layers for any number of MIDI CC messages. MIDI CC messages are sent only on steps where there a CC value has been explicitly written in.

RECORD



The RECORD page allows you to use pads to record beats into the current pattern.

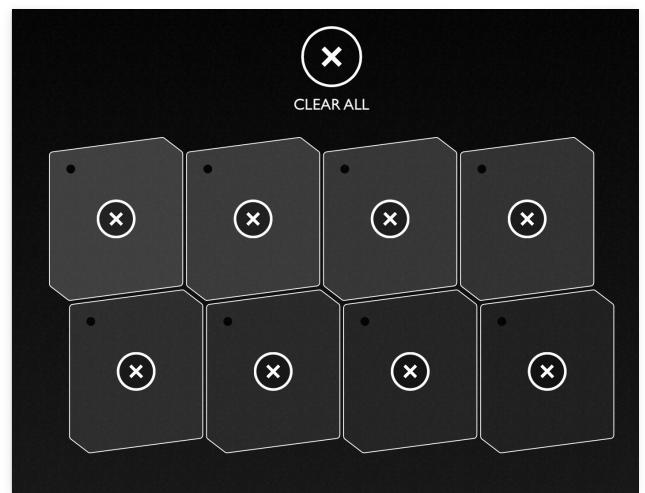
[Watch Video : Recording Loops](#)

Record Pads

The *Record Pads* ① are used to trigger samples from the current drum kit. When recording is enabled, the loop will record what you play, quantizing the timing according to the loop's settings. Velocity of the record pads is determined by the vertical location of your finger in the pad. Higher on the pad will create a louder / higher velocity trigger.

Record Transport

The *Record Transport* ② includes a Play, Record, and Metronome button. Toggling Metronome on will cause a simple metronome to play, allowing you to easily record in time with the pattern.



Clear Button

Hold down the Clear Button ③ and tap a pad or the “CLEAR ALL” button to quickly erase rhythms on a loop or entire pattern.

Pattern Select

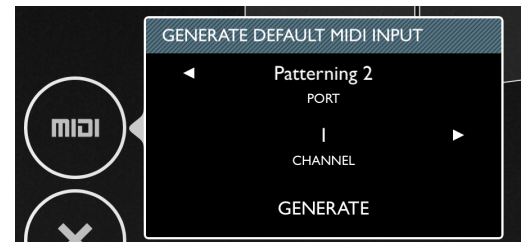
The *Pattern Select* ④ is used to switch between patterns in a song

New / Duplicate Pattern

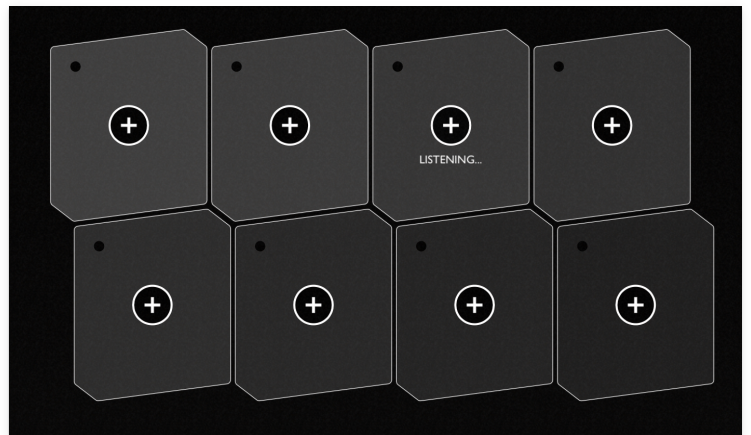
The *New / Duplicate Pattern* buttons ⑤ act identically to the same buttons in the Pattern View, creating a New, blank pattern or duplicating the current pattern.

MIDI Input

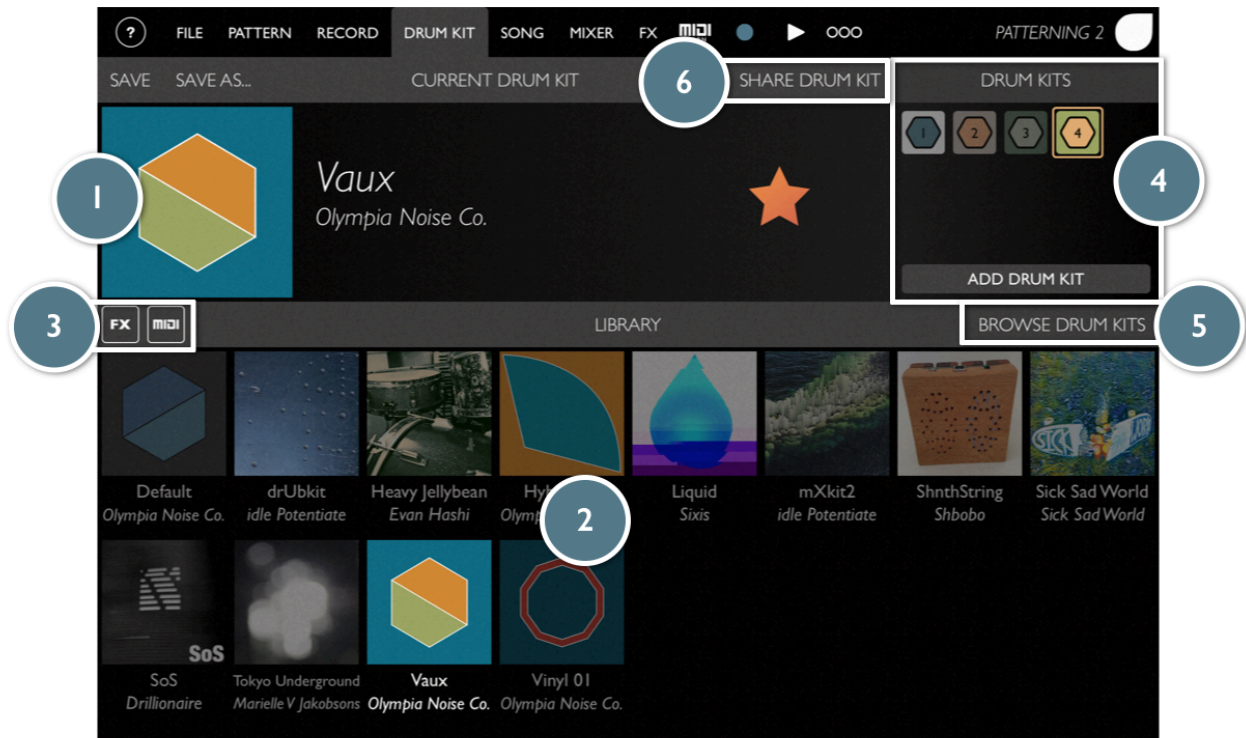
Tap the MIDI Button ⑥ to generate the default MIDI input mapping for the pads using a given MIDI port and channel. The default MIDI input note mapping uses the natural (white key) notes starting at middle C (60) ascending up to the next C.



You can also manually map the pads to any midi note / port / channel using [MIDI Learn](#). After selecting the pad you'd like to map to a MIDI controller, play a note on the MIDI controller to map to the record button.



DRUM KIT



The DRUM KIT page is for managing and loading drum kits.

A Drum Kit in Patterning is a collection of 8 instruments, each corresponding to a Loop within a Pattern. An instrument can include both Audio and MIDI settings.

Current Drum Kit

The *Current Drum Kit* ① view displays the currently loaded drum kit. (See [Dynamic Drum Kits](#)). If the current drum kit originally came from Cloud Kits, a star will be displayed, allowing you to upvote the kit on Cloud Kits.

Tap the Drum Kit image to load custom artwork from your Photos library.

The SAVE button will save the current drum kit to the library, overwriting the kit in the Library from which it was originally loaded. Use SAVE AS... to instead save the current kit to a new drum kit in the Library.

The Drum Kit Library ② displays the drum kits stored on your device.

When loading a drum kit, you can opt for which settings to load (and not load) using the FX & MIDI Buttons ③ in the Library toolbar. This allows you to keep certain settings unchanged when changing kits. Disable the FX button to ignore effect settings when loading a kit from the

Library. Likewise, disable the MIDI button to ignore MIDI settings when loading a kit from the Library.



FX : Reverb, delay, master EQ, and distortion settings. Note that the track FX sends are not considered FX settings in this case.

MIDI : MIDI output settings - on/off, port, channel, note, automation settings, etc. Does not include MIDI learn or input mappings, which are stored with the song.

Tap on BROWSE DRUM KITS ⑤ to open up Cloud Kits. Cloud Kits is a place to download and share user created and factory drum kits. (See [Cloud Kits](#))

The SHARE DRUM KIT ⑥ button allows you to export the current drum kit to [Cloud Kits](#) or to an .onpd (Patterning Drum Kit) file for sharing between copies of Patterning. Patterning Drum Kit files can be imported from version 1, however they are not backwards compatible.

Dynamic Drum Kits / Drum Kit Switching

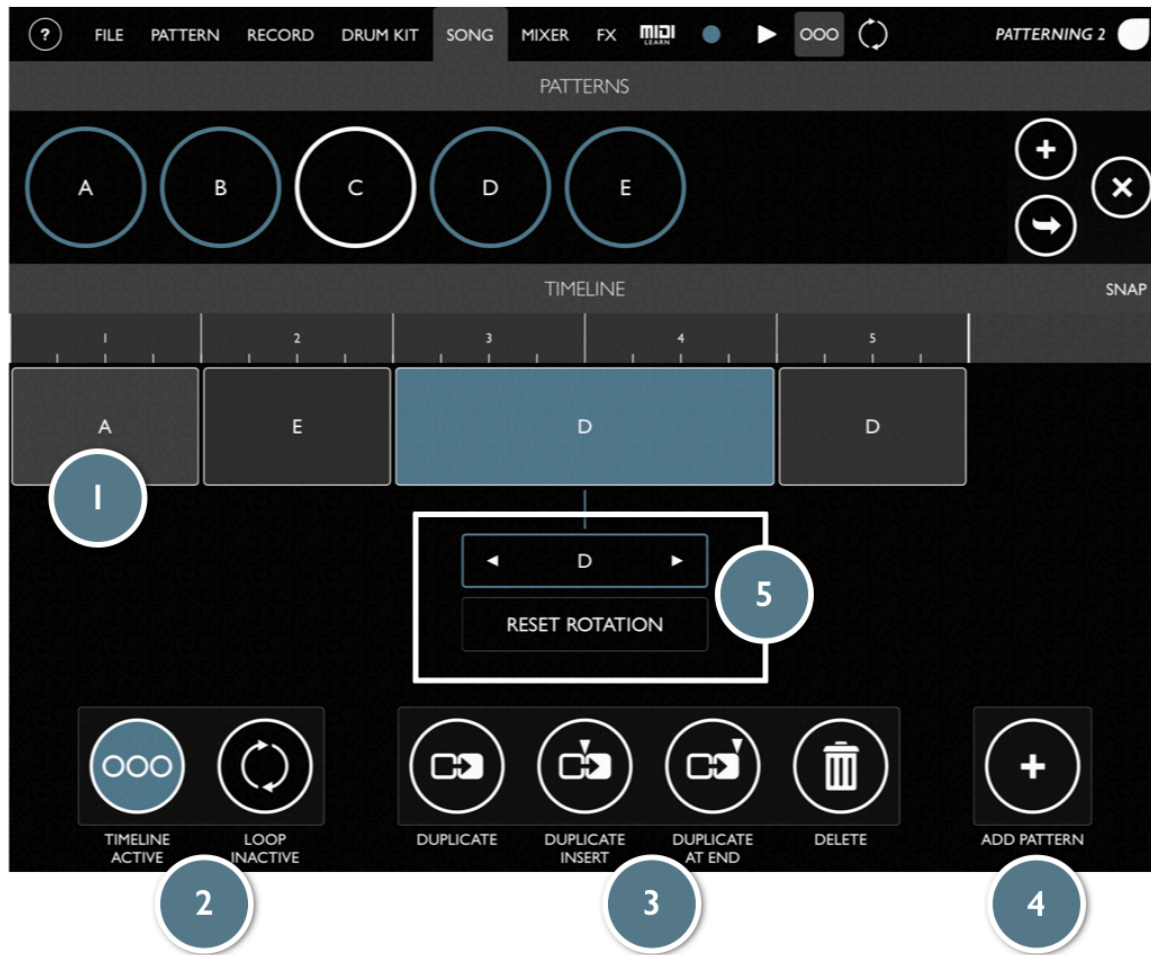
In Patterning 2, you can assign different drum kits to patterns using Dynamic Drum Kits ④. This can be used to swap drum kits when changing between patterns, allowing you to do anything from loading an entire different set of samples and MIDI settings to simply making minor parameter tweaks.

An example. Patterns A and B use drum kit "808". Pattern C uses drum kit "909." Switching to pattern C will change all settings to match drum kit "909" while switching back to Pattern A or B will change all settings to match drum kit "808" Changes to drum kit "808" will affect both patterns A and B.

By default, all patterns use the same drum kit. To create a new drum kit, use the ADD DRUM KIT button to create a copy of the current drum kit and apply it to the current pattern. You can then load a preset drum kit, or just tweak the settings of the previous kit.

Dynamic Drum Kits are also accessible from the PATTERN page's LOOP/PATTERN editor.

SONG



The SONG page consists of two sections : the PATTERNS selector and the TIMELINE. The PATTERNS selector allows you to quickly switch between patterns, delete patterns and create new ones.

The TIMELINE allows you to string together a sequence of patterns to play one after another, optionally looping the sequence.

The timeline consists of any number of Pattern Blocks ①. Use the ADD PATTERN ④ button to create a new pattern at the end of the timeline. To move a block, drag sideways from anywhere in the center of the block. To change the length of the block, drag sideways from either edge of a block.

Select a block by tapping it. With the current block editor ⑤ you can change which pattern is triggered by a block. You can also enable RESET ROTATION to reset the pattern to the beginning when it is triggered in the timeline.

Double tap on a block while the timeline is playing to jump to that place in the timeline on the next downbeat, according to the time signature of the song.

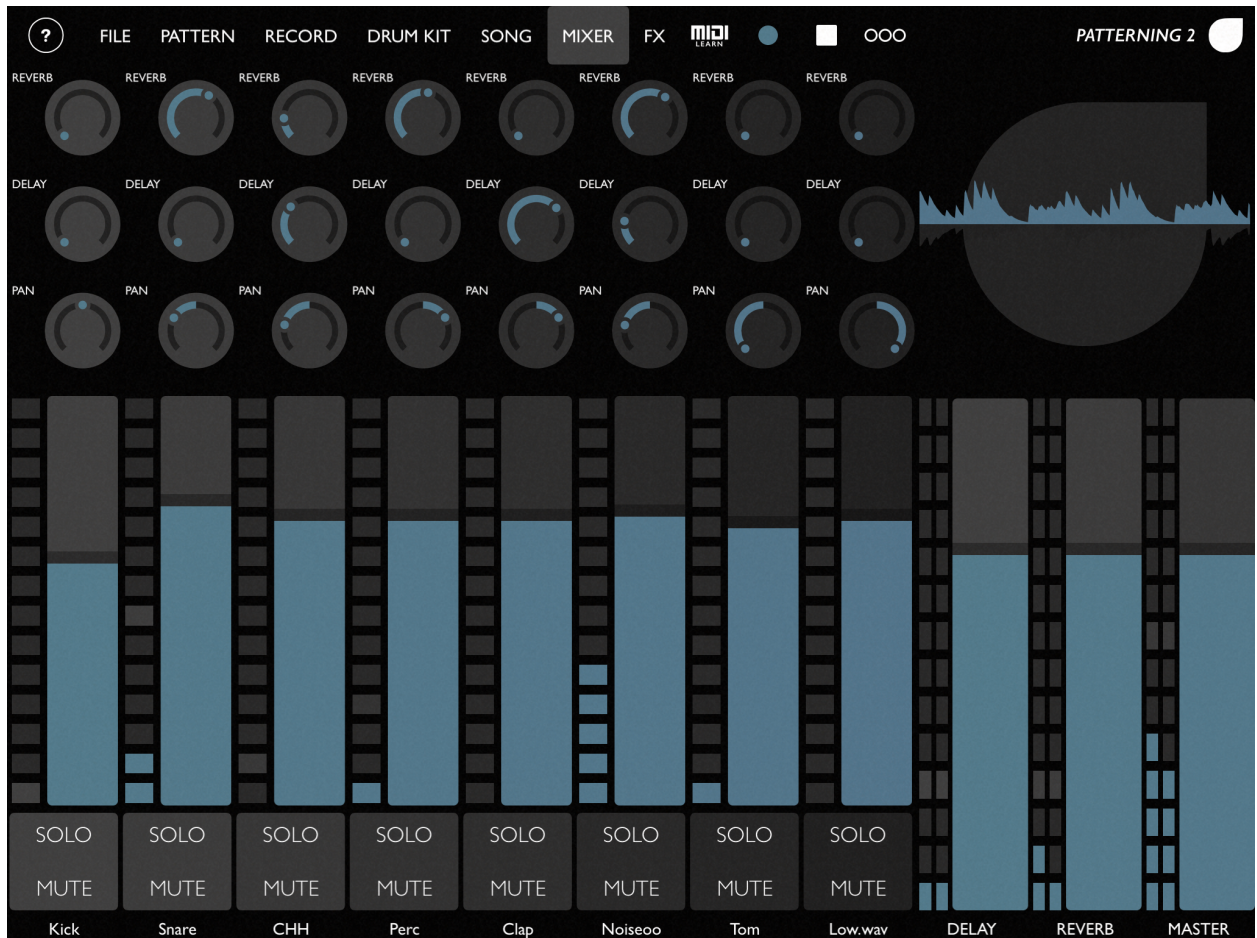
You can select multiple blocks by dragging a selection around more than one block. To do this, start by dragging from blank space below or to the side of a block.

With a block or multiple blocks selected, you can use the editing tools ③ to duplicate the selection. DUPLICATE will create a repeat of the current selection, writing over any blocks underneath. DUPLICATE INSERT repeats the current selection while moving any existing blocks over in the timeline. DUPLICATE AT END will copy the selection to the end of the timeline.

Control the timeline with the TIMELINE and LOOP ② buttons. These are also visible from the app's top menu bar. When the timeline is enabled, pressing play will start from the beginning of the timeline. With looping enabled, the timeline will repeat when it reaches the end. Changing patterns manually while the timeline is engaged will disable the timeline.

You can zoom in and out by pinching with two fingers on blank space in/below the timeline. If some of the timeline is offscreen, move sideways in the timeline with a two finger drag.

MIXER



The MIXER page is for controlling the volumes, panning, effect sends, and mute/solo for the current drum kit. If RECORDING is enable, the panning and effects sends can be recorded. (Track volumes are not currently automatable.)

Knobs on the MIXER page (REVERB, DELAY, PAN) are all vertically controlled knobs — that is, drag up or down, rather than in a circle, to change the value.

FX



Patterning's FX section consists of a DELAY, REVERB, three band EQ and DISTORTION. The delay and reverb effects are on dedicated effect sends from each track, whereas the EQ and distortion are applied to the entire mix on the master channel.

Delay

Delay has 5 parameters : Time, Mode, Filter Type, Feedback, and Filter.

The Delay Time parameter controls the time between the incoming dry sound and the delayed sound.

The Mode sets the delay time mode. Free or Sync. In Free mode, the delay time is in milliseconds. In Sync mode, the delay time is set in musical durations, and will change with the tempo.

The Delay Feedback parameter controls the amount of delayed signal that is sent back through the delay, creating multiple echoes.

The Filter Type and Filter parameters control the settings of a post-delay, pre-feedback filter. Because this filter is pre-feedback, it can be used to make repeated echoes get filtered repeatedly, creating a tape-echo degradation effect.

Reverb

The Reverb section contains parameters for controlling the reverb effect. Room Size and Damping control the main reverb effect's time and dampness. Cutoff and Filter Gain control settings of a post-reverb high-shelf filter. The DELAY > REVERB control is for routing the output of the delay through the reverb effect.

EQ

The EQ section has three fixed resonance EQs (Low Shelf, Parametric, and High Shelf) that can be moved around to change the gain and frequency of each filter band.

Distortion

The distortion effect is a wave shaper and bandpass distortion with variable wet/dry. Drag up and down to control the wave shaper and left/right to change the filter frequency. The wet/dry control mixed the distorted sound with the dry signal.

Appendix

Background Audio

Music apps on iOS need to have background audio enabled to play sound while not the currently foregrounded app. Patterning will automatically enable background audio if **any** of the following conditions are true :

- The clock is playing.
- The clock is pending play (i.e. waiting to start playing at the next downbeat).
- The clock source is MIDI clock.
- The app is connected to an Inter-App Audio host or Audiobus.
- The song has a MIDI mapping controlling the play or record buttons.
- The song has MIDI input mapping controlling a record pad.
- The app is connected to Ableton Link and has Start/Stop sync enabled.

If all of these conditions are false, the app will disable background audio.

MIDI Learn

MIDI input in Patterning includes MIDI mappings to parameters, as well as triggering and recording samples. MIDI Learn mappings can be controlled by MIDI Notes, CC messages, and Program Changes.

[Video : Recording Beats](#)



MIDI Learn Mappings are saved with the Song rather than individual Drum Kits.

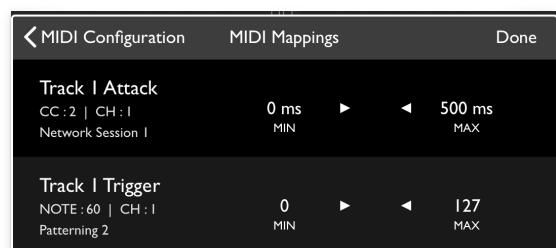
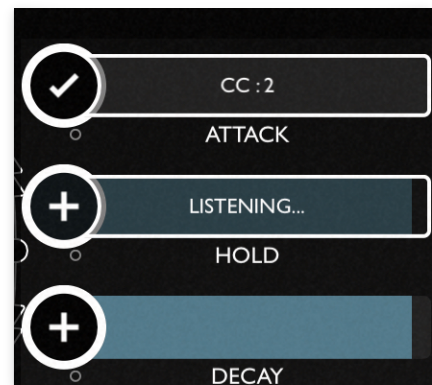
To map a MIDI controller to an on-screen control, tap the MIDI Learn button on the main menu bar.

Controls that allow MIDI Learn Mappings will display a + button. Tap the + button to begin listening for MIDI messages. The button will flash and display “LISTENING.”

Move a slider or play a note on your MIDI controller, the “LISTENING” text will be replaced by the MIDI message that is now mapped to that control.

Tap a different control or exit MIDI Learn mode to commit the mapping. Or, tap the + button again to clear the mapping.

Using the MIDI Configuration > Edit MIDI Mappings window on the FILE screen, you can edit the range

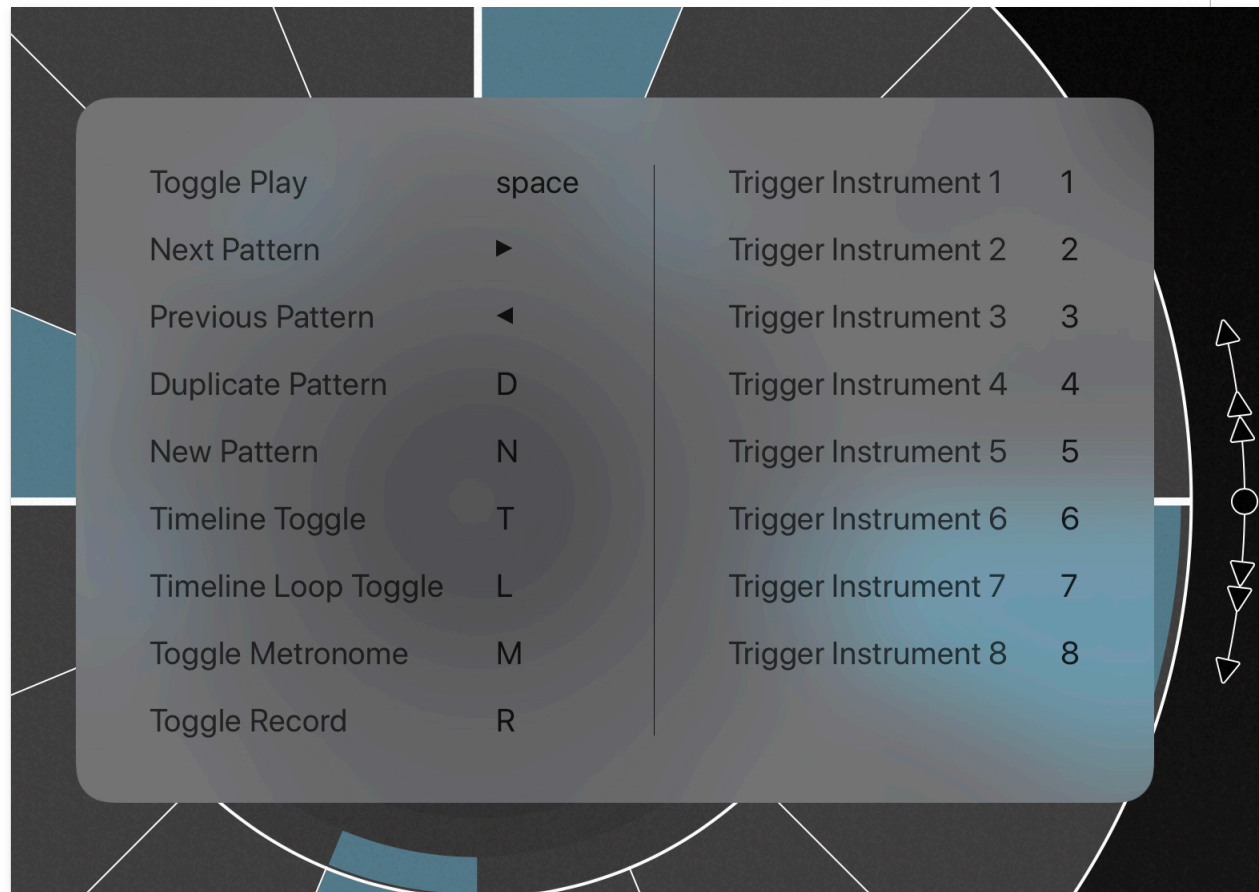


of a MIDI Learn mapping.

Keyboard Shortcuts

[Watch Video](#)

When using an external computer keyboard several shortcuts are defined. Hold down the command key to see a list of available commands.



Recording Automation

When recording is enabled, changes to instrument parameters are recorded to automation layers. Automation values changed through MIDI Learn Mappings will be written through the remainder of a loop, and recording of that parameter will reset at the loop beginning until the MIDI value changes. The beginning of the loop is defined as the first step, not accounting for any rotation that has been applied.

Cloud Kits

Cloud Kits allows you to choose from hundreds of factory and user created drum kits to bring into your Drum Kits library.

All drum kits are free to download and are royalty free for use in creative projects. You may not, however, redistribute the samples for other sample libraries or for other uses.

The Cloud Kits browser allows you sort by tags or search (along the top bar) and to sort based on criteria (along the bottom bar).

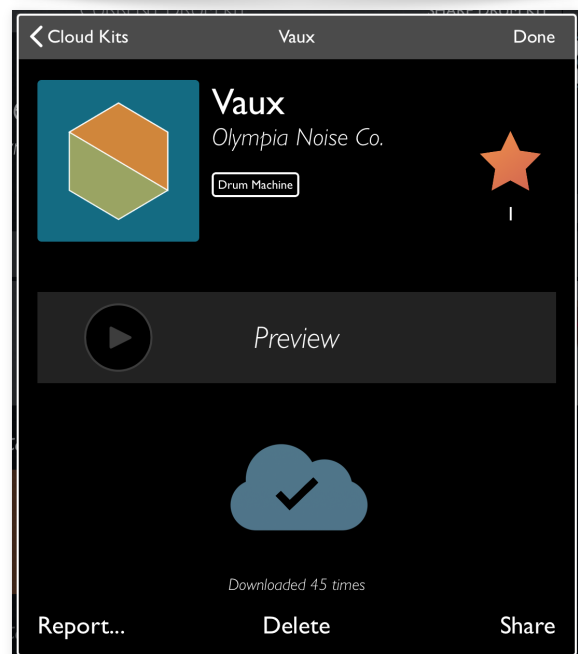
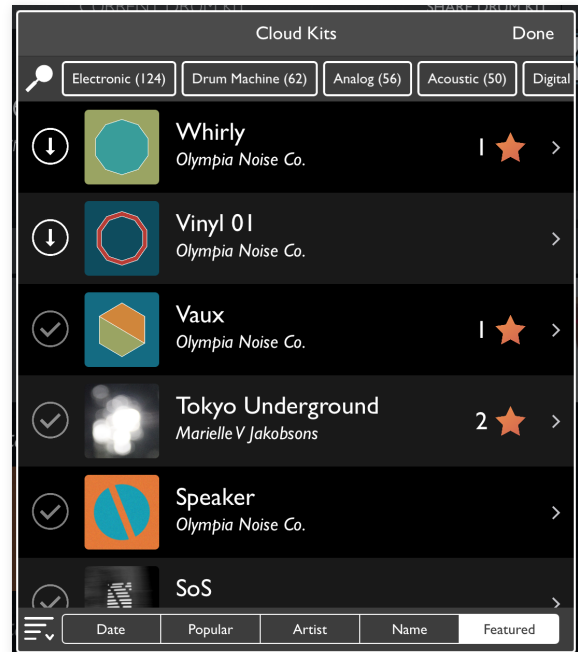
To the left of the drum kit's picture is a quick download button. You can also tap on the drum kit to view more information, listen to a preview, or upvote (star) your favorite drum kits.

If the kit is one that you have shared, the DELETE button will allow you to remove the kit from sharing.

Sharing Cloud Kits

You can upload your own content to Cloud Kits to share with the world. We have over 300 kits uploaded so far!

Use the SHARE DRUM KIT button to walk through the process of uploading to Cloud Kits. All samples uploaded *must be your original samples or clearly free from copyright*. By uploading samples, you are asserting that the samples are yours to distribute and that you take all legal responsibility for content you upload. There's a legal document you will need to agree to when you first upload, but yea, be a good



person so we can keep offering this cool way to share kits.

File Export

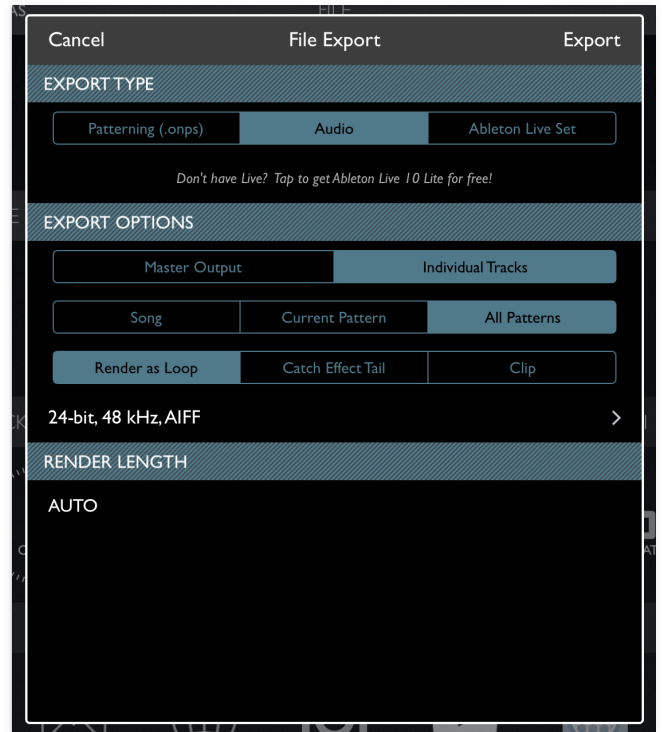
EXPORT TYPE

The EXPORT button brings up a window for exporting a Patterning song. There are three FILE TYPE options : Patterning, Audio, and Ableton Live Set.

The *Patterning* file type is .onps. This is an exported Patterning song for sharing and loading on another iPad, or for backup purposes. An .onps file contains all samples and everything else needed to recreate the song.

Audio Export creates an audio recording of your song, using the options to configure how the audio is exported.

The *Ableton Live Set* export option creates an Ableton Live Set from a Patterning Song. In addition to creating audio tracks, it will also create MIDI tracks for MIDI enabled instruments in your project.



EXPORT OPTIONS

Master Output / Individual Tracks

When exporting to *Audio* or *Ableton Live Set*, you can choose to either bounce stereo audio from the master output or from each track individually, creating a multi-track export of your song.

When exporting to *Individual Tracks*, each track is recorded through the effect chain (if enabled) so that delay and reverb are captured along with the bounced audio.

Song / Current Pattern / All Patterns

The output section determines what is bounced : *Song* bounces from the timeline. *Current Pattern* bounces only the current pattern. *All Patterns* bounces every pattern from the song.

Render as Loop / Catch Effect Tail / Clip

Render as Loop creates an audio file by cross-fading the end of the file back onto the beginning, creating a seamless audio loop.

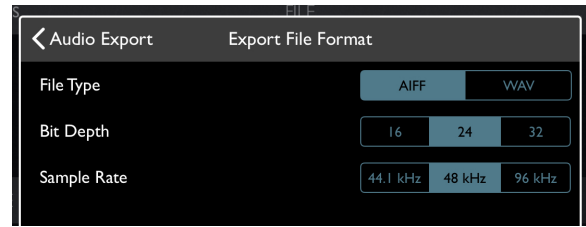
Catch Effect Tail bounces the audio, waiting for the effect (reverb/delay) to fade out at the end of the audio file.

Clip bounces the audio without creating a loop or waiting for the effect tail.

File Type

You can configure the file type of the exported audio file by tapping on the file format cell. (“24-bit, 48 kHz, AIFF” in the example).

File Type can be either AIFF or WAV. Both are uncompressed formats.



The *Bit Depth* can be set to 16, 24, or 32 bit. 16 bit is the bit depth of a compact disc. Internally, Patterning uses 32 bit.

Available *Sample Rates* are 44.1 kHz (CD quality), 48 kHz, or 96 kHz.

RENDER LENGTH

The Render Length setting determines the length of the audio bounce. In non-song, *Individual Track* situations, the render length will be set to *AUTO*. This will bounce each loop according the length of the individual loop, accounting for auto-rotate settings, if applicable.

If you are bouncing a *Song*, or using *Master Output* of patterns, you can set the render length manually. Keep in mind that Patterning allows patterns to have loops of different lengths, so the render length of bounced tracks can be quite important in making accurate bounces of your loops!

SAVE TO...

Tap the EXPORT button to choose where to save the exported audio files.

Importing From Patterning 1

Patterning Song File (.onps)

You can also import individual songs from Patterning 1. In Patterning 1, use the EXPORT... button to generate an .onps file, and use Open In... to open the file in Patterning 2.

Patterning Drum Kit (.onps)

Similarly, you can export drum kits from version 1 into version 2 using EXPORT from the Drum Kits page.

Database

The DATABASE menu is available on the FILE page, and is used to create or import a manual backup of Patterning’s database, including all songs, patterns, samples, and drum kits. You can use this option to import your entire Patterning 1 database into Patterning 2.



Importing a database will replace the current database, **deleting all of your**

current data and replacing it with the imported database. It will NOT merge the two databases. Only use this option if you know what you are doing.

When exporting a database in either version of Patterning, the database will be saved to iTunes File Sharing as a folder named *backup.patterningDatabase*. This entire folder must be copied, unmodified, into the iTunes File Sharing folder for Patterning 2. After moving the folder, open up Patterning 2 and select Database > Import Database.

It may take a minute to copy the database. **After importing, you will need to quit and restart Patterning 2.** When re-launching Patterning 2, the load time may be significant, as it will need to update the database to match the current app database model.

In the event of an database replacement failure, you may need to erase and re-install Patterning 2 to restore to the default database. Please report any error messages to support@olympianoiseco.com.

Inter-App Audio

Patterning has 9 Inter-App Audio (IAA) audio ports.

The Main IAA Output outputs the master output of Patterning, including effects. If you wish to use IAA Clock Sync, you must be connected through the Main IAA Output.

Each individual track also has a dedicated IAA output, containing a single track's output with no effects. Any tracks connected via IAA will be no longer routed through the Main Output to avoid doubling the audio from the track.

Sample Library & Editor

The *Sample Library & Editor* is accessed by tapping the *waveform viewer* on the *Sample* sub-panel.

Sample Editor

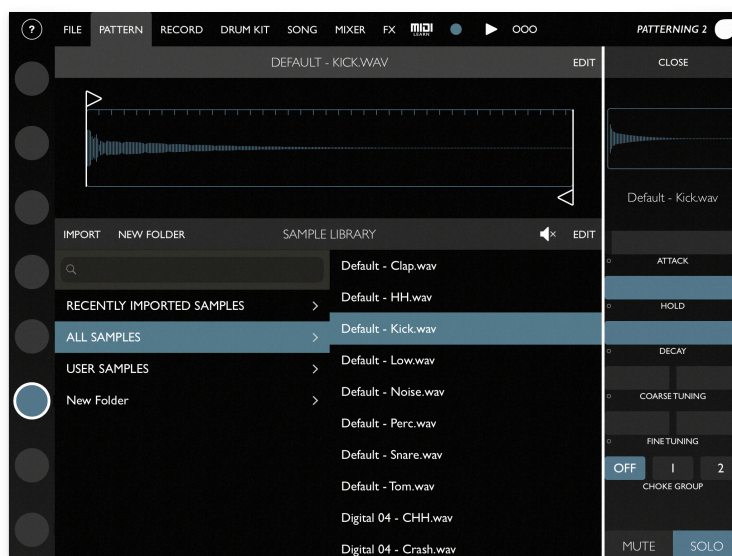
The *Sample Editor* allows you to rename and perform simple edits to your sample.

Use the two flags to change the *sample start and end points*.

Drag up & down to change the *sample gain*.

Tap *Edit* to rename your sample, set the sample's track name or *Crop* the sample into a new sample, using the *sample start and end points*.

The sample's track name determines the name that shows up on the PATTERN



page's loop selector and on the MIXER page. This is stored with the sample, so it will also update the track name in any other drum kits or songs that use the sample.

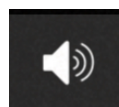
Sample Library

The sample library organizes samples into folders and allows you to import your own samples into Patterning. On the left, select a folder or search for samples by name. On the right, preview and select samples from the current folder.

Sample Import

Choose *Import* to import your own samples into Patterning. For importing multiple samples at one time, Dropbox and iTunes File Sharing are probably your best options. You can also use the iOS Files app or Audioshare.

If you have a very large sample set to import, you can use iTunes File Sharing to import a folder of samples at once. Simply copy a folder (or folders, it will recursively find all valid audio files) of samples to Patterning 2 in iTunes File Sharing. Then choose Import > iTunes Files Sharing to import all samples into the app at once.



Preview Samples

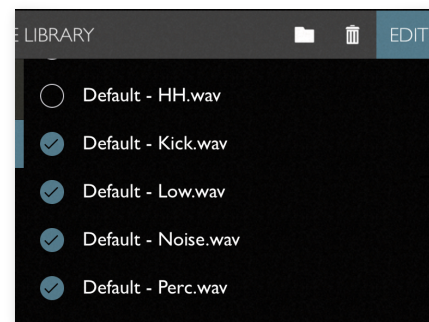
Enable *sample previewing* with the speaker icon. When enabled, selecting a sample will trigger the sample using the current instrument settings.

Sample Folders

Samples can be arranged into user create folders. Tap **NEW FOLDER** to create a new folder.

To add samples to a folder tap *Edit*, and select the samples you would like to place in a folder. Then tap the folder icon. A window will appear. Choose an existing folder or press the + button on the bottom to create a new folder.

You can delete an existing folder by swiping right to left on the folder name in the sample library.



Deleting Samples

Delete samples by swiping right to left on a sample. To delete many samples at once, tap *edit* and select multiple samples, then press the *trash* button.

You can remove a sample from the current folder by swiping right to left on the sample name and pressing the folder "x" button.

Recording Automation

[Watch Video : Recording Automation](#)

When recording, changes to most instrument parameters are recorded to automation layers. Simply move a slider, control, or knob (in the mixer page) while recording to have the parameter recorded into automation.

The parameters that cannot be automated are mute/solo, volume, sample start and end times.

Randomization (+/-)

Many of the instrument parameters can be randomized. To show the randomization settings for a parameter, tap the name of the parameter, just below the parameter's control. Randomization settings apply to that instrument within the drum kit (and thus apply to all patterns that use the same drum kit). Randomize amount can also be automated via Layers, overriding the randomization amount on an individual step or pattern.

Each parameter has a range and exponent value. The normalized value is a number between 0-1 which is then raised to the exponent power, and scaled into the output range.

The randomization works by generating a random value between -1 and +1 and scaling it by the randomize amount. This number is then added to the normalized value for the parameter.