

Pyramid Sequencer User Guide

Squarp Instruments

Manual based on PyraOS version V 1.0

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1 Quickstart

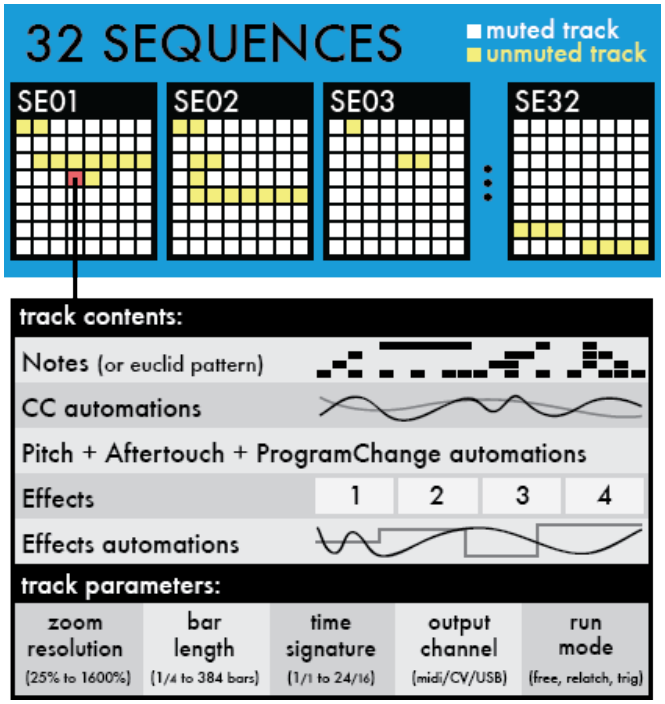
Pyramid Workflow

WIRE UP

Connect the Pyramid to the supplied mini USB power supply, or connect the Pyramid to a computer with a standard mini USB cable, and press the **on**/**off** button.

SEQUENCER WORKFLOW

Pyramid provides 64 sequencer tracks. A track is a loop that contains polyphonic or monophonic notes, automation and effects; plays repeatedly, and controls instruments connected to MIDI A, MIDI B, USB MIDI, or CV outputs. The Pyramid workflow is designed around muting and unmuting tracks to build sequences and songs.



Pyramid also provides powerful creative tools:

- smart chord harmonizer
- scale generator
- beat repeat
- hold and relatch
- groundbreaking step sequencer (unlimited number of notes and CC messages per step, per-step FX parameter locks)
- euclidean sequence generator
- polyrhythmic & polymetric sequences
- real-time MIDI effects

Pyramid is an instant source of inspiration to start and finish your song. You will never run out of ideas!

TRACKS VS SEQUENCES

A Pyramid project can include up to 64 tracks. Tracks are organized into 4 banks: A, B, C, D. Each bank contains a group of 16 tracks. Thus all 64 tracks and four banks are organized from **TR01A** to **TR16A** (track 1 through 16, bank A) up to **TR01D** to **TR16D** (track 1 through 16, bank D).

Each track can be configured according to your needs.

A track can be:

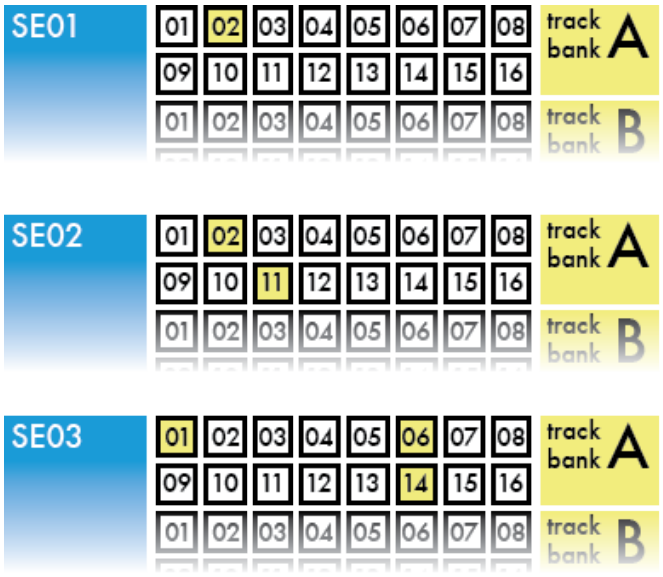
- a standard pattern (e.g. a 4 bar track)
- a linear clip (e.g. a 384 bar track)
- an euclidean pattern
- a polymetric pattern (e.g. a 1+1/4 bar track)
- a polyrhythmic pattern (e.g. a 8 bar track with 7/8 time signature)
- a micro track with a high zoom resolution (e.g. a 1/4 bar track with 1600% zoom)

A Pyramid project can be composed of up to 32 sequences. A sequence defines the mute states of each of the 64 available tracks. In each sequence, you choose which track is unmmuted (active) or muted (inactive) in order to build your song or arrange your set:



You can choose to play 64 tracks at the same time in a single sequence, or mute/unmute any of the 64 tracks across 16 sequences: it's a great and versatile way to create songs very quickly.

In the example below **SE01**, (sequence 01) has only **TR02** (track 02) unmuted. In **SE02** (sequence 02), **TR02A** and **TR11A** (tracks 02 and 11) are unmuted. In **SE03** (sequence 03), tracks 01, 06, and 14 are unmuted:



Individual tracks are shared between sequences. Changes to TR02A will apply to all sequences where TR02A is active (SE01 and SE02 in the example above).

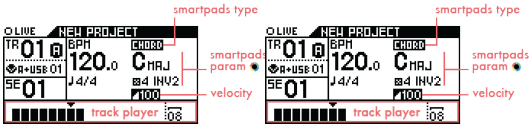
When the sequence changes, if a previously active track is still active in the next sequence, it will not restart from the beginning like a classic sequencer. It will continue to play & loop and therefore keep its shift with the other tracks, to keep the polymetry running (see "Note about track lengths concurrence & sequences" section). If you want to restart your track from the beggining like a classic sequencer, configure your track in "relatch mode".

Moreover, if you want to add some MIDI effects on TR02A, you can assign a control (e.g. an encoder) for this effect, and affect the sound of the TR02A in real-time, no matter which sequence you are in.

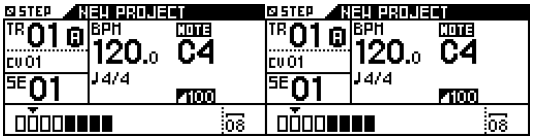
QUICK TOUR OF THE FOUR PYRAMID MODES

Pyramid is a dynamic sequencer that allows you to interact intuitively with tracks and sequences. All modes are always accessible. Launch sequences in **SEQ** mode; mute/unmute tracks in **TRACK** mode; play with effects, and even add notes and CC messages in **LIVE** and **STEP** modes. You can assign one of the 5 multi-functional rotary encoders to control MIDI effect parameters in real-time. Encoder assignments are independent of the sequence you are viewing or the mode you are working in.

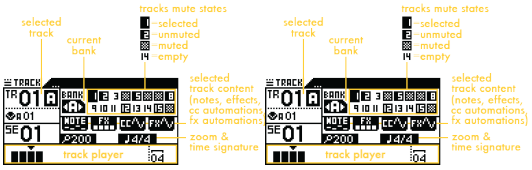
Press **LIVE**: record notes and CC automation to the current track using the built-in keypads, smartpads (8 pads that can be configured as chord generator, note repeat or scaled piano), an attached MIDI controller, a Control Voltage instrument, or your computer.



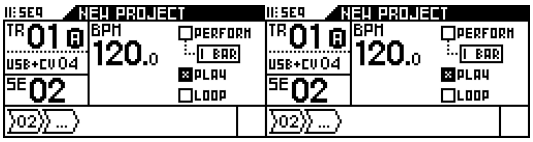
Press **STEP**: fill steps of the currently selected track with notes and chords using the 16 pads of the NOTE & CHORD stepmodes. Configure velocity, width, and offset of a single note or a group of notes. Edit your live recording with surgical precision. Switch to EUCLID stepmode to auto-fill steps. Switch to CC MESSAGES stepmode to create or edit MIDI CC automation. Switch to EFFECTS stepmode to create or edit effect parameter locks. Each step (and even microstep) can contain an unlimited number of notes, CC and FX automation!



Press **TRACK**: mute/unmute the tracks using the bottom two rows of 16 pads. Change the current BANK (A/B/C/D) with < and >. Set up the length, time signature, zoom, and MIDI channel of the current track. Build a sequence.

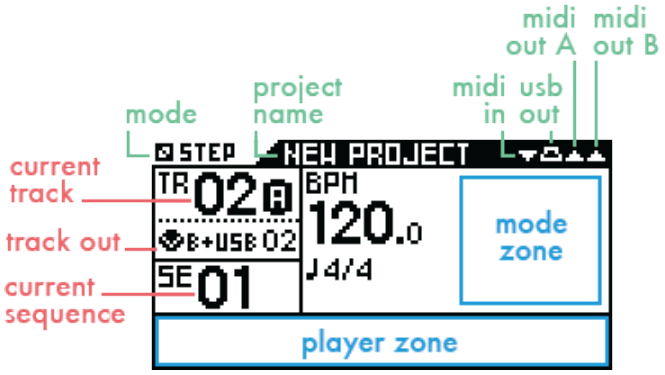


Press **SEQ**: launch your sequences (stored mute states of all 64 tracks) on the fly, or program a chain of sequences to create a complete structured song.



SCREEN

In each of the four modes, the following data is displayed:



Mode: **LIVE** **STEP** **TRACK** **SEQ**

Project name: name of your saved song.

MIDI in flashes if a MIDI message is received; MIDI out A, MIDI out B and USB out flash when a MIDI message is sent.

Tempo: BPM of your project.

Current track: track number and bank (A, B, C, D) in Live and Step Modes.

Track out indicates which output is transmitting sequence information (MIDI A, MIDI B, USB, CV), and which MIDI channel is configured. Multiple outputs can be selected.

Current sequence: sequence number and the tracks you are editing in TRACK mode. Can also display the next sequence to be played in the chain.

Mode zone: highlights the main parameters of each mode, which generally can be edited via the clickable data encoder .

Player zone: track player (a representation of the current track, the level of zoom, the track length), the player position, and the page you are viewing in Live, Step and Track modes:



The example above shows a 12 and 1/4 bar long track (12 bars + 1 beat). The four outlined squares represent the first page of the track. The arrow icon indicates the player is currently at the twelfth bar.

In Seq Mode the Player zone displays the sequence chain:



In the example above, 6 sequences are chained and SE06 (highlighted) will play 2 bars.

When chaining sequences, any active (unmuted) track that is active in the following sequence will not restart from the beginning like a classic sequencer but will instead continue to play & loop thus preserving polymetry (see “Note about track lengths concurrence & sequences” section, p. 35). If you want your track to restart from the beginning as with a classic sequencer, configure your track to play in “relatch mode.”

Basics

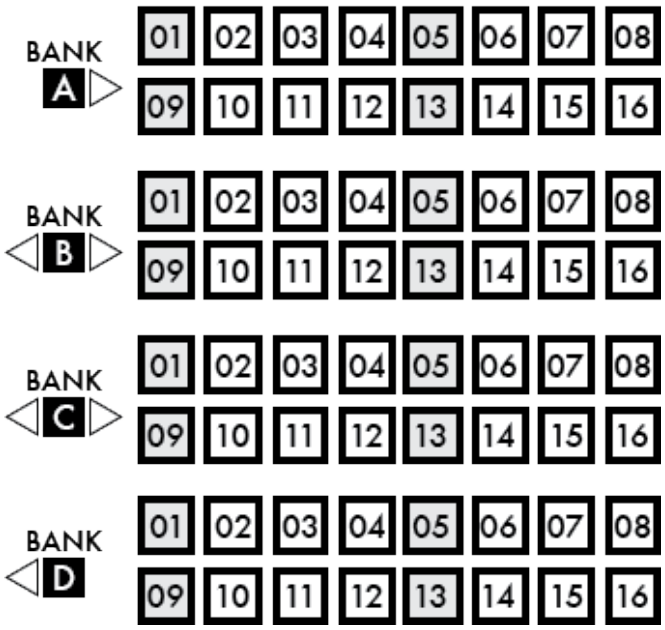
SELECTING THE CURRENT TRACK

As described in ”TRACKS VS SEQUENCES” a Pyramid project can include up to 64 tracks:

- 16 tracks in bank A
- 16 tracks in bank B
- 16 tracks in bank C
- 16 tracks in bank D

In any mode hold **TRACK** while pressing one of the 16 pads ▪▪▪▪▪▪▪▪ to select the track of the current BANK you want to work with (for example TR03A).

To change the current track BANK (A/B/C/D), hold **TRACK** and press < or >.



The current track number and its output channel are displayed on the screen:



Change the MIDI output channel of the selected track by pressing **TRACK** + **MIDI channel**. Multiple tracks can transmit on the same MIDI channel.

Note: A track is created as soon as you edit a note or a CC message in **LIVE** or **STEP** mode.

CAPTURING A PERFORMANCE

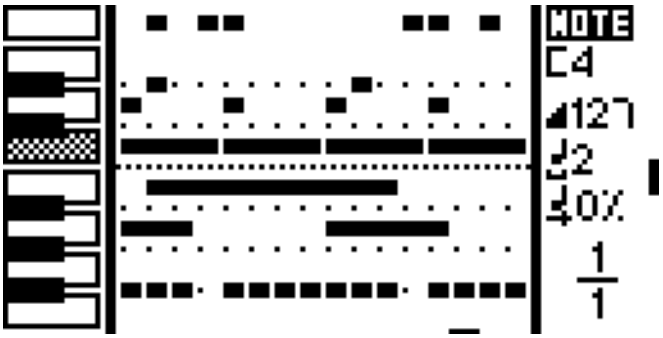
When in **LIVE** mode, capture a performance on a currently playing track by pressing press rec O. If the track is paused, press rec O to ”arm” the track, then press ▶II to begin a count-off before recording begins.

You can play and record notes with the built-in keyboard ▪▪ ▪▪▪ and smartpads ▪▪▪▪▪▪▪▪. Use the 5 assignable encoders ●●●●● and the assignable touchpad ▭ to record CC and FX automation.

You can also use an external MIDI controller to record notes and automation. It’s even possible to record CV events thanks to the CV/gate input!

Pyramid allows unlimited polyphony and CC automation data per track. Quantize is not active by default, so you will capture the “human feel” of your performance.

Enter **STEP** mode then press DISP to view the piano roll and recorded notes:



Of course, it’s possible to add, remove, edit notes in a flash in STEP mode with the step-by-step sequencer.

USING THE STEP SEQUENCER

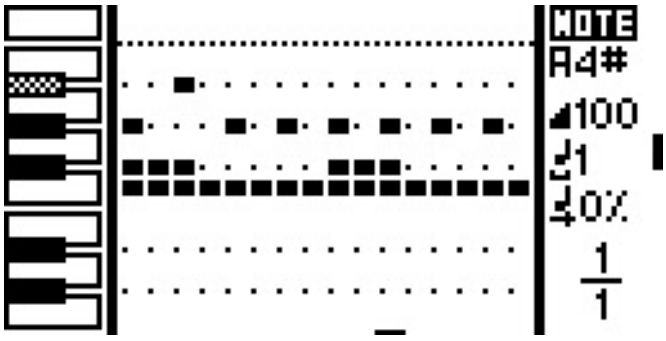
Add, remove, and edit notes in the current track in **STEP** mode with the step sequencer.

Enter **STEP** mode:

- to select the note (e.g. C4), rotate ●
- to add a note, press one of the 16 steps ▪▪▪▪▪▪▪▪
- to remove the note, press this step again ▪▪▪▪▪▪▪▪
- you can also hold one of the 16 steps and rotate ● to set the note.

Pyramid is fully polyphonic, so you can add as many notes as you want on each step. You can set the **velocity**, the **width**, and the **offset** of a note. You can **zoom** to set the resolution of steps (by default 1 step = a quarter note, but you can zoom in so that 1 step = a 1/64 note). Finally, you can set the **length** and the **time signature** of the track, so you can work on very short or very long patterns!

Press DISP to view the piano roll of the current track and the notes entered in **LIVE** and **STEP** mode.



Cycle through stepmodes by holding **STEP** and rotating . There are 5 stepmodes:

- **NOTE** (add, delete, edit notes)
- **CHORD** (add, delete, edit chords)
- **EUCLID** (generate algorithmic patterns)
- **CC MESSAGES** (add, delete, edit CC automation)
- **EFFECTS** (add, delete, edit FX automation)

Multiple stepmodes can be used on a single track (except **EUCLID**) to add notes, chords, CC automation, and FX automation. Of course, you can also create tracks that only contain note or CC information.

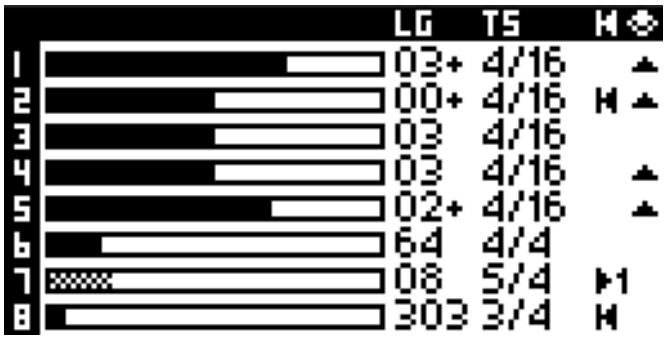
MUTING AND UNMUTING TRACKS

Enter **TRACK** mode. Press < > to select a track bank.

Use the 16 pads to mute/unmute any tracks you have created, from TR01A to TR16D.

You can play up to 64 tracks simultaneously! Muting and unmuting tracks is a great and intuitive way to perform your project spontaneously.

Press DISP in **TRACK** mode to display track progression:



Note: Changes in mute/unmute states sync differently depending on the **PERFORM** type selected in **SEQ** mode.

SELECTING THE CURRENT SEQUENCE

The current sequence number is displayed on the screen:



In any mode, hold **SEQ** and select a sequence (from SE01 to SE16) by pressing the corresponding pad . If you select an empty sequence a new sequence will be created and the track mute states of the last sequence will be applied. To display sequences from SE17 to SE32, hold **SEQ** and press >.

To launch a new sequence after the end of the currently playing sequence, enter **SEQ** mode and press one of the 16 pads . The newly selected sequence will begin when the current one ends. Holding **SEQ** while pressing one of the 16 pads will start the newly selected sequence without waiting for the end of the currently playing sequence (instant jump).

CREATING AND EDITING SEQUENCES

In **TRACK** mode, hold **SEQ** and select the sequence you want to create or edit by pressing one of the 16 pads . To display sequences 17 through 32, hold **SEQ** and press >. The current sequence number is displayed on the screen:



Then mute/unmute your active tracks to build the sequence. A sequence is automatically created as soon as you change the mute state of a track.

PERFORMING SEQUENCES

Once you have created several sequences, enter **SEQ** mode to play them. Make sure **PERFORM** is selected in order to perform sequences on the fly. Sequences will always remain in sync:



You can select how Pyramid transitions between sequences: instant, 1 beat, 1 bar, 2 bars, which gives you deep control over performing with sequences.

Press any sequence number to launch it. Pyramid waits until the current sequence ends (the end of the bar, if “1 BAR” selected) before launching the next sequence.

The current sequence will play in a loop until you press another sequence number.

TEMPO

Tap BPM to set the tempo, or hold BPM while turning the data encoder. To fine tune BPM to decimal values, press while rotating. Tempo resolution ranges from 10.0 BPM to 999.9 BPM.

TIP Hold **2ND** + BPM and turn the data knob. The tempo change will be applied only when you release **2ND**.

TIP Hold **2ND** + BPM and slide the touchpad X axis to temporarily shift the tempo up or down. Very handy for manually syncing Pyramid to an external sound source (for example a turntable).

TIP Hold **2ND** and press < or > to double or divide the BPM in a flash.

By default Pyramid automatically synchronizes BPM to any instrument providing a sync signal at the MIDI input.

UNDO

In any mode, press **2ND** + **undo** to cancel the last edit, for example notes or automation recorded in Live mode. Another press of undo will redo the last edit.

Undo will work on the following actions:

- REC ON in Live mode,
- PLAY ON,
- stepmode change,
- new track selection,
- step copy,
- track delete.

SAVING AND LOADING A PROJECT

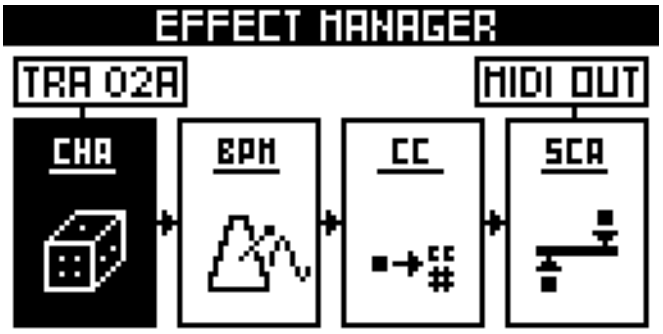
In any mode, press **2ND** + **save/load** to save, save as, load, or create a new project.



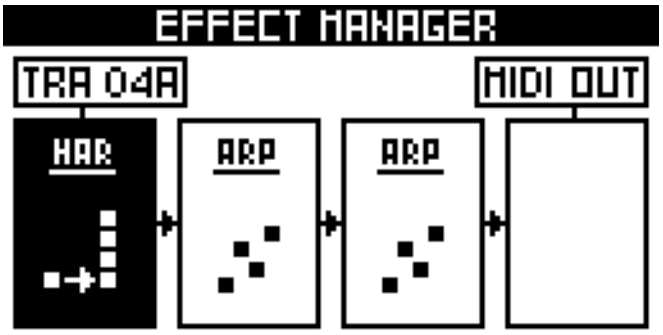
An SD card must be inserted or you will be unable to enter the save/load menu.

EFFECT MANAGER

Press FX to access the EFFECT MANAGER screen. Chain up to 4 real time MIDI MIDI effects per track:



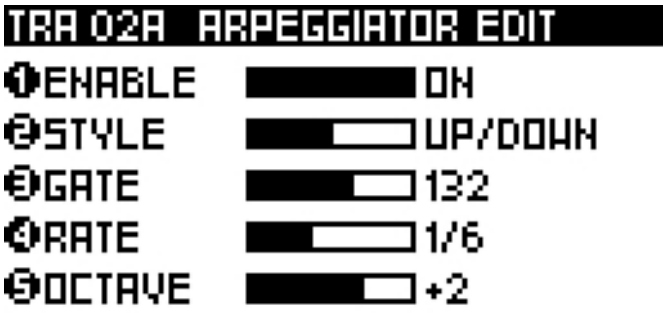




There are eleven effects to choose from:

- Quantizer
- Arpeggiator
- Harmonizer
- Swing
- Randomization
- Delay
- Equalizer
- Scale
- Note to CC converter
- BPM
- Chance

Effect parameters can be edited using the 5 encoders ●●●●●. Experiment to find your favorite settings:



TIP You can still play or add notes in **LIVE** and **STEP** mode, mute/unmute tracks in **TRACK** mode, and even launch sequences in **SEQ** mode with the effect manager activated.

Change an effect's position in the chain by holding **2ND** and rotating . Different arrangements may produce very different results. Experiment!

Quantize can only occupy the first effect position.

TIP The effect manager is also a great tool if you are a keyboardist and you want to revive your old synths. Give them new features like arps and effects and they'll sound like they never did. You can also use Pyramid to control your modular system using CV in & out to create a truly unique instrument.

The effect engine also works when the player is stopped, as Pyramid clock always runs.

ASSIGN A CONTROL

Pyramid provides 5 clickable encoders and a touchpad. You can assign values by holding ASSIGN and turning an encoder or sliding the touchpad.

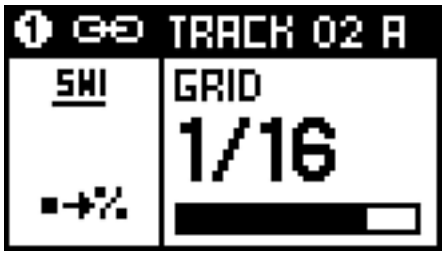
For each controller you can:

- send a **CC MIDI message** to the current track's MIDI channel (for example pitch or a CC message)
- link to a track's effect **effect parameter** (for example the quantization grid, the swing % or the arpeggiator rate of the track 02)



TIP Press an encoder to display its assignment and its value (for example TR02A Swing Grid = 1/16).

Once a controller has been assigned use it to make real-time changes in any mode.



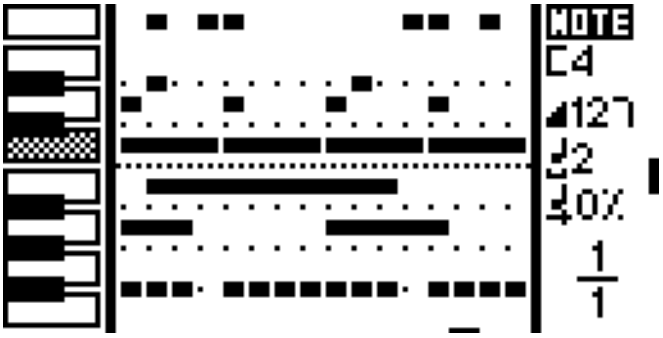
Press rec in **LIVE** mode to record automation on a currently playing track:

- If the encoder is assigned to a **CC message**, automation will be recorded to the track only if the MIDI out and the MIDI channel of the CC is the same as the current track out settings (for example MIDI A channel 04).
- If the encoder is assigned to an **effect parameter**, automation will be recorded to the track only if this effect is active on the current track.

Controller assignments are saved with the project and are independent of track and sequence. Selecting a new track or a new sequence will not unlink or change controller assignments.

DISPLAY FEATURES

You can access extra information in some modes by pressing DISP. For example, in **STEP** mode, pressing DISP will show the piano roll editor:



The above is an example of a track programmed with notes of different lengths. You are viewing the page 1 of 4. The current note is C4, the current velocity is 127, the current note length is 4 steps and the current note offset is 0%. If you add a step by pressing a pad you will add another note with these parameters.

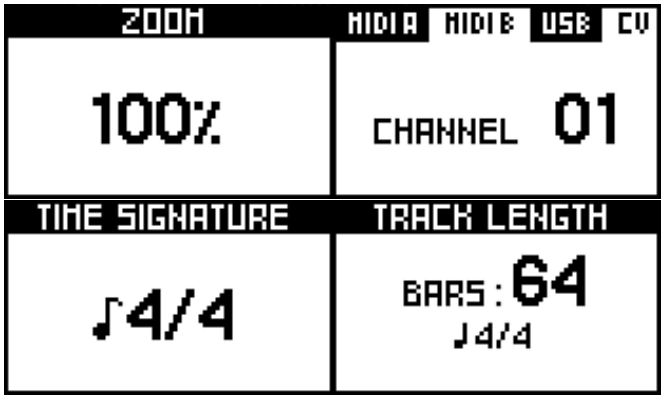
QUICK TRACK SETTINGS

This is one of Pyramid's most useful features, we strongly advise you try it!

To change the current track settings, in any mode, hold **TRACK** to use the shortcuts:

- **solo**
- **MIDI channel**
- **zoom**
- **length**
- **time signature**

For example, when in **STEP** mode, hold **TRACK** + **zoom** and rotate to change the zoom resolution (from 25% to 1600%) in a flash.



PLAY/PAUSE/STOP

Press ▶II to play/pause the sequencer. ▶II flashes (depending on the BPM and the current track time signature) if the project is playing, and is softly backlit if the project is paused.

Press ◻ to stop the sequencer. If you are working with multiple pages (see Step Mode section), pressing ◻ once stops the player at the current track page, while pressing ◻ twice rewinds to the beginning of the track.

Two presses on STOP will send an All Note Off MIDI message to your instruments, a third press will send an All Sound Off MIDI message to silence the synth's note release instantly. In addition, the third STOP press also sends Program Change messages of active tracks, if set.

By default MIDI clock is sent to MIDI A out, MIDI B out and USB out. Play/stop/continue messages are disabled by default. You can activate them separately in the SETTINGS menu.

METRONOME

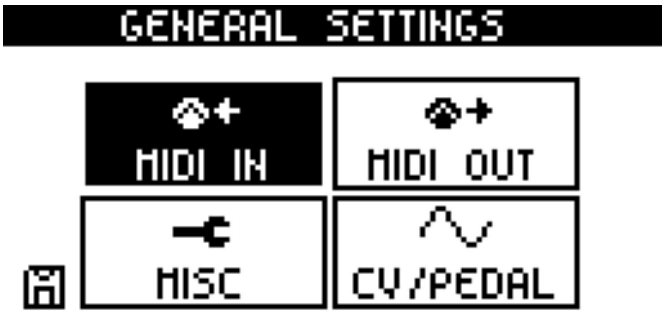
Hold **2ND** and press **LIVE** to activate the metronome:



The metronome will send a specified MIDI note on the selected output channel and will follow the tempo. You can configure it in SETTINGS > MISC.

SETTINGS MENU

Press **2ND** + FX to enter General Settings.



Select a category to configure your project:

- **MIDI IN** (MIDI input configuration)
- **MIDI OUT** (MIDI output configuration)
- **MISC** (other project and core options)
- **CV/PEDAL** (CV/Gate inputs+outputs analog configuration, pedal control assignment)
- **DISK** (save/restore all settings, save/restore all track channels)

Inputs/Outputs

MIDI CONNECTIVITY

MIDI input



Connect one or more MIDI controllers (e.g. keyboard, drumpad, fader surface) to Pyramid's MIDI in, and transmit MIDI notes and MIDI CC messages to Pyramid. In SETTINGS you can choose between **OMNI-mode** (control the selected track, regardless of controller output channel) and **MULTI-mode** (control TR01A if a controller's channel = 01, control TR14A with a controller set to channel 14, etc.). This option allows you to record multi-channel events as a MIDI looper.

Synchronize Pyramid's clock (tempo) with an external machine and even control play, pause, and start remotely.

MIDI outputs



Pyramid provides two MIDI outputs (A and B) to control a large range of electronic instruments such as synthesizers, drum machines, and MIDI enabled effects. Because both MIDI outputs provide 16 MIDI channels Pyramid can control up to 32 instruments.

USB CONNECTIVITY

USB MIDI input



Connect Pyramid to your computer with a standard mini USB cable and Pyramid will receive MIDI notes, CC messages, pitch, aftertouch, transport messages and MIDI clock. USB works exactly like a MIDI DIN input.

USB MIDI output



Pyramid can also control and sequence up to 16 virtual instruments (VST) on your computer, and sync your DAW via MIDI clock.

CV/GATE CONNECTIVITY

CV/Gate inputs



There is one CV and one Gate input on the Pyramid. You can use them to convert CV/Gate notes to MIDI notes, then add real-time MIDI effects to your CV/Gate performance, and finally send these notes to MIDI OUT, CV/Gate OUT, or USB OUT.

To use these inputs, plug a CV pitch output from your instrument to the Pyramid's 3.5mm CV input jack, and plug the gate output of your instrument to the 3.5mm CV Gate input jack. Your external instrument will control MIDI notes on the currently selected Pyramid track.

You can also use the CV inputs as a voltage controlled MIDI CC MESSAGES. For example, a CV voltage of +5V can be converted to a CC MESSAGE value of 127. Pyramid will then send the CC Message via MIDI OUT, or you can choose to control an internal MIDI effect (e.g. control TRACK04 arpeggiator rate with CV input #1, and control the TRACK11 quantize grid with the CV input #2).

We added these 2 CV/Gate inputs to Pyramid for those who like to experiment.

CV/Gate outputs



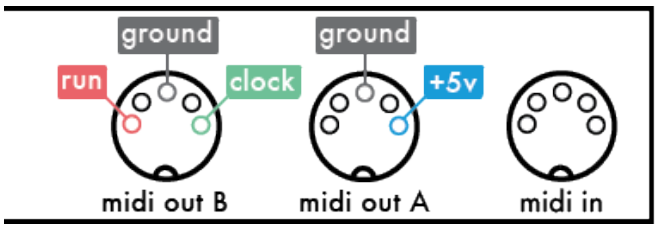
Pyramid has only one CV output and one Gate output because we wanted to keep the machine compact. "ENV" is another control voltage output that is very useful for sequencing filters or any voltage-controlled input on your modular or CV synth.

DIN SYNC CONNECTIVITY



Pyramid provides an optional DIN sync output (configurable to Sync48, Sync24, Sync12, …in menu SETTINGS) that lets you synchronise your vintage instruments with tempo clock and a run/stop message.

The DIN sync output is available on MIDI out B, routed as following:



In SETTINGS, you can also configure the 3.5mm CV ENV jack as a DIN Sync output to provide analog clock to your modular.

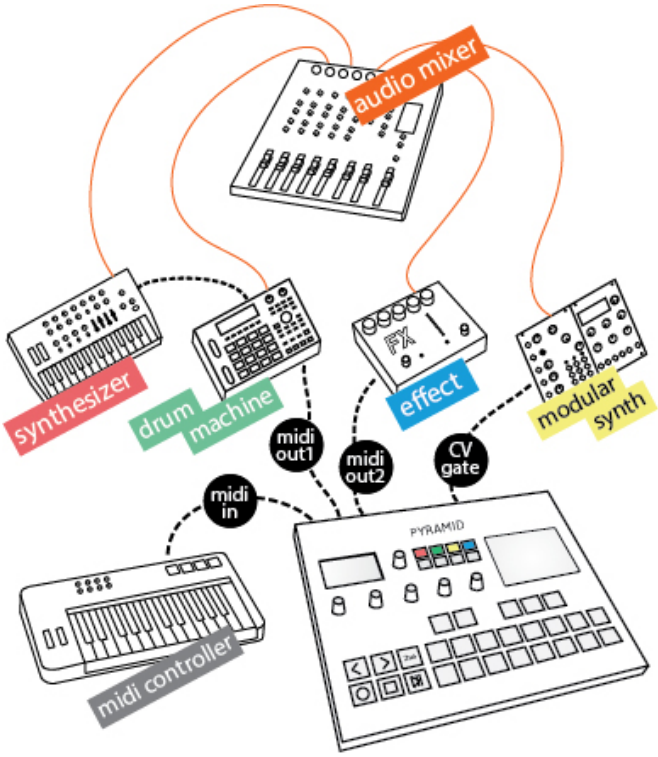
PEDAL FOOT-SWITCH



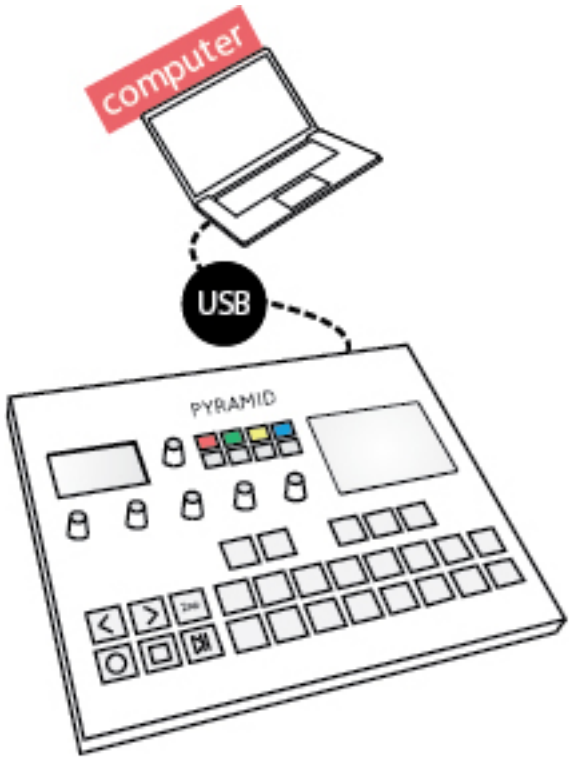
You can plug a foot-switch type pedal and assign it to an internal control (REC, play/pause or play/stop). You can also use a double pedal (stereo jack) to control 2 actions in Pyramid.

Connectivity examples

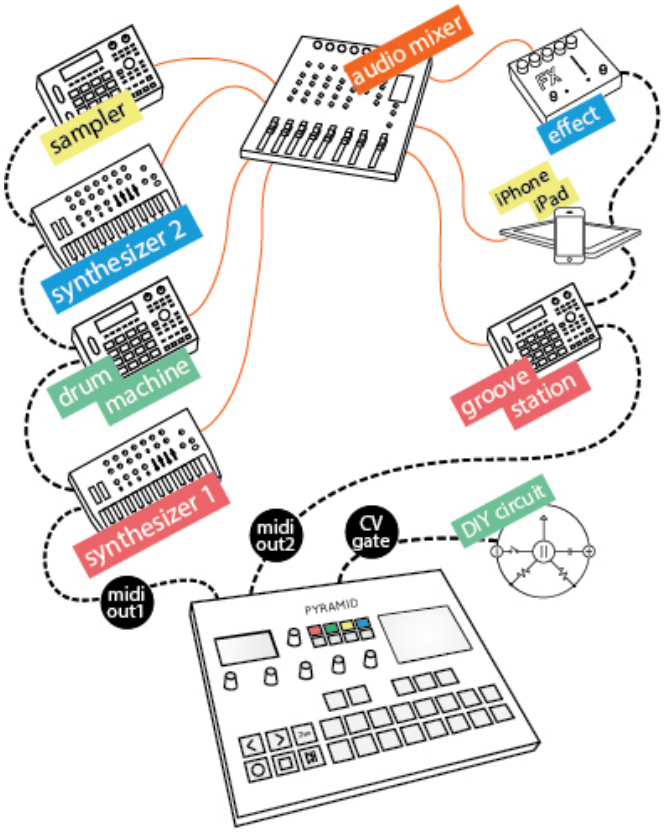
PYRAMID ON STAGE



PYRAMID SEQUENCING VIRTUAL INSTRUMENTS



PYRAMID ON THE STUDIO TABLE



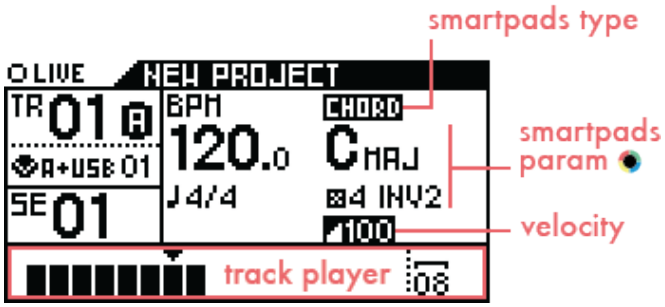
2 Live Mode

Live Mode is the quickest way to create tracks from scratch.

In your studio, use Live mode to experiment and record your music using the built-in keypad, knobs, touchpad and smartpads (that can be configured as chords harmonizer, advanced beat repeat or a scaled piano).

On stage, play with Pyramid and make your performance lively and creative. Real-time effects allow you to easily generate complex music, always in sync.

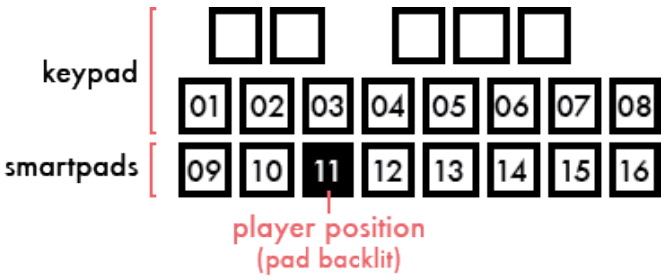
Screen



Note: the track player zone is described in the Step Mode section.

Pads

Pads in Live Mode are divided into two parts: a one-octave keyboard and 8 smartpads.



Note: Processed & recorded notes are displayed on the 13 black & white keypads with low luminosity. This feature is very fun and useful when using the arpeggiator & chord smartpads for example.

Play with the keypad

Use the keypads to play your performance live. Press < or > to shift down and up octaves.

You can also use external MIDI controllers (keyboards, drumpads, fader surfaces) connected to the Pyramid's MIDI input to control the current track (control notes with velocity + aftertouch + pitch, or control CC messages).

With OMNI-mode disabled, a controller transmitting MIDI on channel 01 will control track 01A, a controller transmitting MIDI on channel 12 will control track 12A,…

TIP MIDI effects on the current track will be applied to your live performance, even when using an external controller.

Record your performance

Press rec ○ (or rec ○ + ▶II if the track is paused or stopped) to record your live performance on the current track using the keypads, smartpads, or an external MIDI controller.

Record FX and MIDI automation using the assignable encoders ●●●●●, the touchpad ▭, and the analog inputs. (See the Assign section to learn how to assign a control.)

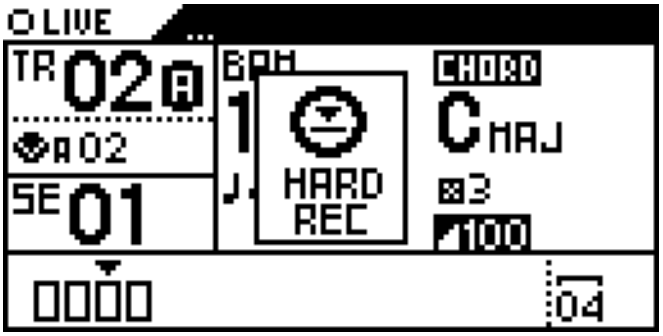
COUNTDOWN

When the player is stopped ■, "arm" the track for recording by pressing rec ○. When you press ▶II, Pyramid sends a MIDI metronome countdown before recording starts - pressing 2ND and LIVE causes the metronome to continue playing and remains until the end of the track loop.

Define the countdown duration in SETTINGS > MISC > REC COUNTDOWN.

HARD RECORD

Press 2ND + RECORD to activate "hard recording." Previously recorded notes are overwritten in this mode of recording.



LIVE LOOPER

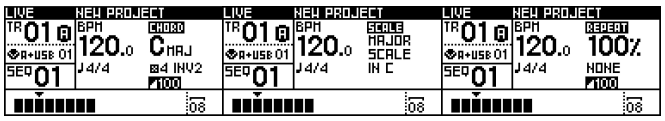
Pyramid provides you a new way to capture your performance in the style of looper pedals! In this mode, the length of a track grows to fit your initial performance. Press rec ○ to start recording a loop. Press rec ○ a second time to stop recording. Track length is now fixed. Perform freely without worrying about pre-determining track length.

To activate Live looper, enter SETTINGS > MISC > LIVE LOOPER and select the looper time quantization (beat = the track length is set to the nearest beat, 1bar = the track length is set to the nearest bar, ...) To activate a Live Looper recording, first stop □ Pyramid, press rec ○, then press ▶II.

Change smartpad type

Hold **LIVE** and rotate the data knob to change the function of the 8 smartpads ▪▪▪▪▪▪▪▪:

- **CHORD** (default)
- **SCALE**
- **REPEAT**

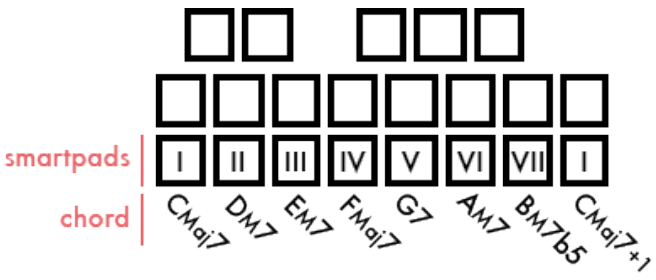


Chord smartpads

The Chord Smartpads represent the 7 degrees of the harmonized scale. These harmonized scales are the basis on which almost every song you know is built.

In Pyramid, we use two parameters to build chords: ”tonality” is the first note of your harmonized scale and ”complexity” represents the number of notes in each chord and chord inversion.

If we choose a CMaj tonality and 4 notes of complexity, we can obtain the following chords by pressing one (or more) of the smartpads:



Pyramid’s original harmonizer algorithm allows you to quickly select a relative tone by rotating . Unleash your creativity by building complex harmonies.

Holding **2ND** + rotating will jump to the next major/minor tonality. Add complexity by pressing and rotating :



Press < or > to shift the chord down or up by octaves.

TIP Increasing complexity will add «alterations» and eventually bring you to complex jazzy chords.

TIP Set a low complexity value to perform simple chords and then add additional tones with the keypads.

Press DISP to display the generated chords for the 8 smartpads and the currently recorded notes:



Scale smartpads

A scale is an ordered set of musical notes based on a root note. Predifined scales help you easily compose melodic patterns.

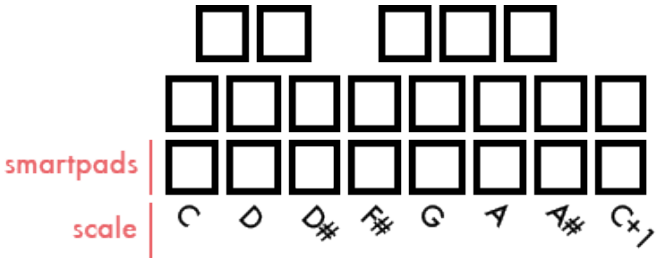
Pyramid includes a varied set of scales: Minor scale, Harmonic minor, Minor blues, Major blues, Romanian minor, Tunis scale, Dominant 7th, Spanish scale, Gipsy scale, Arabian scale, Egyptian scale, Hawaiian scale, Japanese scale, Minor third, Fourth scale, Fifth scale, Octave scale, Ionian scale, Dorian scale, Phrygian mode, Lydian mode, Mixolydian mode, Aeolian mode, Locrian mode.

Rotate to select a scale from the list:



Hold 2ND and rotate to select the root note of the scale.

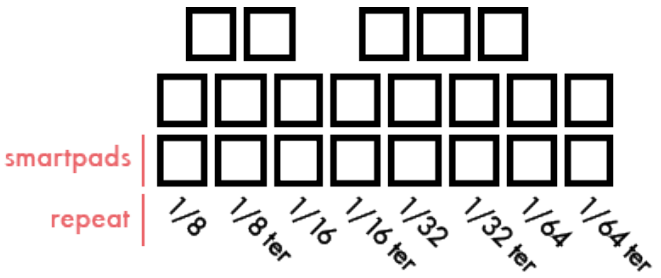
With the Romanian Minor scale and a root note of C, you can perform the following notes using the smartpads:



Press < or > to shift the scale's octave down or up.

Repeat smartpads

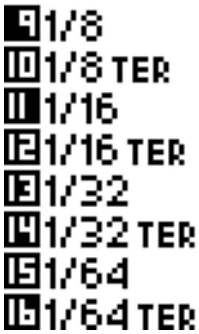
Hold a smartpad to choose a repeat speed (for example 1/8 = 8 notes per bar) and use the keypad to play a note repeatedly.



Rotate to select the gate of repeated notes (from 0% to 100%):



Press DISP to display the repeat speed of each of the 8 smartpads:





Hold

Hold 2ND and press ▶II to activate the **HOLD** function. Hold allows you to sustain notes played with the keypad, smartpads, or an external MIDI device. Held notes are highlighted on the keypad.

TIP Hold is very useful when designing drones/synth pads or experimenting with an effect like the arpeggiator.

When HOLD is enabled, is displayed on the screen.

Relatch

Hold 2ND and press ▶II to activate the **RELATCH** function, allowing you to hold the last keys or chords played until you play something else.

When RELATCH is enabled, the icon is displayed on the screen.

Hold 2ND and press ▶II a third time to go back to regular LIVE Mode.

Copy/Paste/Delete

Press 2ND + copy to copy the selected track (copy all notes + FX + FX automation + CC automation).



Press 2ND + paste to paste the copied track to the selected track.



All notes, CC automation, FX, FX automation are copied, however track parameters like track length are not.

Press 2ND + delete to delete only notes + CC automation + FX automation of the current track.


NOTE
FX
CC
TRACK
DELETED

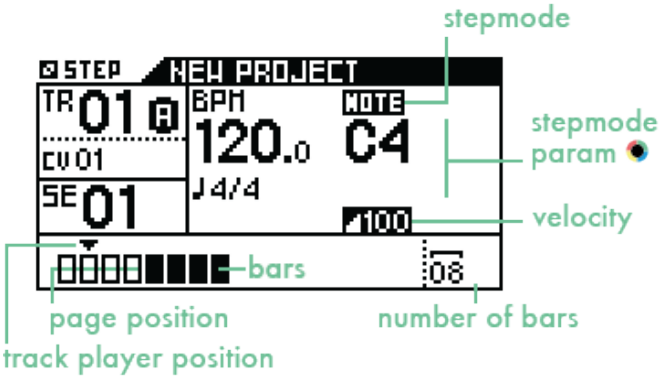
3 Step Mode

Step Mode is another way to create rhythms and melodies. Unlike Live Mode–where you perform in real-time using the keypad and the smartpads–Step Mode allows you to “program” sequencer information directly into the current track. Step Mode is a great way to get the best from your synthesizers and drum machines.

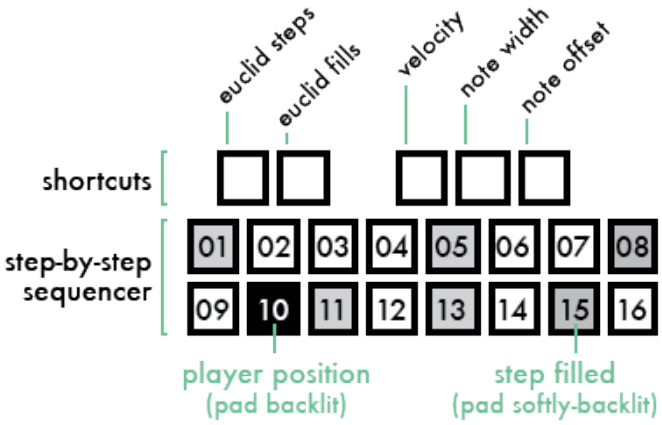
Pyramid includes 16-step pads, but you are free to extend the length of the track up to 384 bars and zoom up to 1600%: the number of steps is almost infinite! The ability to add multiple notes on a single step, modify the velocity, note width, and offset for each step makes Pyramid one of the most advanced sequencers on the market.

Step Mode also allows you to edit a previously recorded live performance using the piano roll view.

Screen



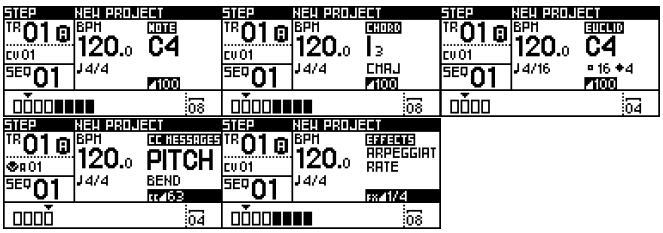
Pads



Change Stepmode

Stepmode defines how steps are filled. Hold **STEP** and turn the data knob to select Stepmode from the following modes:

- **NOTE** (default)
- **CHORD**
- **EUCLID**
- **EFFECTS**
- **CC MESSAGES**



All stepmodes (except **EUCLID**) can be used together to create a track. For example, you can add chords with the **CHORD** stepmode, then edit these chords with the **NOTE** stepmode, create step-lock automation with **CC MESSAGES** and **EFFECTS** stepmodes, and finally go back to NOTE stepmode to add extra notes.

EUCLID stepmode can’t be used with **NOTE** or **CHORD** stepmodes because the euclidean algorithm takes exclusive control of the track player.

Note Stepmode

This mode allows you to program notes by filling steps.

ADD NOTES

Select a note on the screen with .



Press a step pad to fill it with the current note.

Press the pad again to remove the note. You can add multiple notes on a single step. The pad corresponding to the step filled with the selected note will be softly backlit.

TIP Hold **2ND** and rotate to scroll the current note list faster.

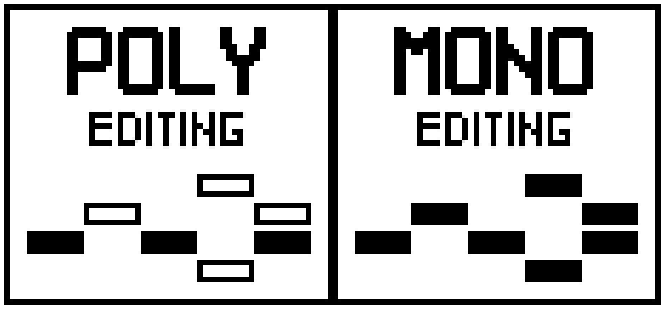
TIP Preview the selected note by pressing . Pressing < or > while pressing allows you to jump octaves and

navigate notes more quickly. You can also press a key while holding to directly enter a desired note (or press multiple keys to enter a chord).

At any time, you can **zoom** to increase the step resolution and navigate the pages with < and >.

POLY / MONO EDITING

Switch to **MONO/POLY EDITING** by pressing rec



POLY EDITING is enabled by default. Poly mode is useful when editing tracks controlling polyphonic instruments. This mode allows you to add multiple notes to a single step. In **POLY EDITING** mode, pads will be softly backlit only if they are filled with the current note, displayed on the screen. When copying steps, **copy** will only copy the current notes. The same behavior is true for **paste**, transpose, move horizontally, and for **velocity**, **width**, **offset** quick edits.

To switch to **MONO EDITING**, press rec (rec led will lit). It's useful to edit tracks controlling monophonic instruments, like a classic step sequencer. Whatever the current note is, steps softly backlit if they are filled. You can't add multiple notes on a single step: all notes of the track are stacked. If you **copy** some steps, the copy will be effective for all the notes in selection. Same behavior for **paste**, transpose, move horizontally, and for **velocity**, **width**, **offset** quick edits.

TIP Switch to **MONO EDITING** to have a global view of which of the 16 steps are filled with notes. If you press a filled step, it will remove all notes in this step, whatever the current note is.

TIP A long press on a step (if **MONO EDITING** enable) auto-select the nearest note of the step. For example if a step contains a C2♯ and a E2 note, and if the selected note of the piano roll is C4, a long press will select the note E3. Very handy to quickly view or edit a note in a step.

NOTE PARAMETERS: VELOCITY, WIDTH, OFFSET

When you add a note on a step, the step is filled with its 3 current parameters: **velocity**, **note width** and **offset**.

Default velocity is 100, default note width is 1 step, and default offset is 0%.

This means that by default notes will fill a step from its start to its end. Note duration depends on zoom and time signature. If **zoom** = 100% and **note width** = 1, an added note will be a quarter note (because the 16 steps represent 16 quarter notes). If **zoom** = 200% and **note width** = 1, the added note will be an eighth note (because the 16 steps now represent 16 eighth notes). You can play with the **zoom** shortcut to edit your track with a high degree of resolution!

● SET NOTE VELOCITY

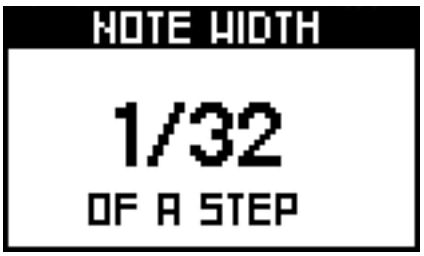
To change the defalult note velocity, hold **velocity** and rotate (from **0** to **127**):



TIP Double tap a step pad to add a low velocity note in order to create accents quickly.

● SET NOTE WIDTH

By default notes are played the entire width of a step. To change the default note width, hold **note width** and rotate (from **1/32** of a step to **16** steps):





TIP Using a **note width** longer than 1 step is an easy way to create slides on monophonic instruments.

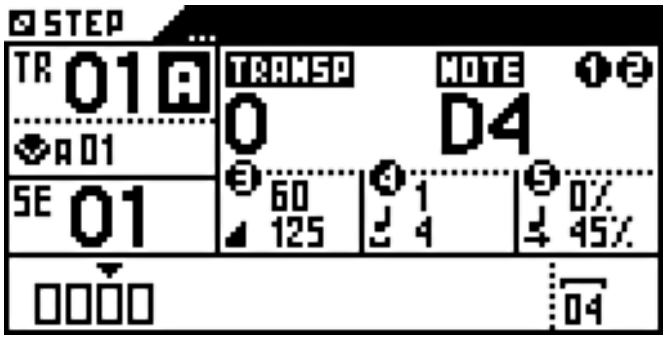
● SET NOTE OFFSET

Each note starts at the beginning of a step. To change the default offset, hold **offset** and rotate (from **0%** to **99%** of a step):



QUICK STEP EDITS: VELOCITY, WIDTH, OFFSET, TRANSPOSE, MOVE HORIZONTALLY

When you hold a step (or when you hold two steps to select a row of steps), the screen displays the note parameters of the selection:



Note velocities ranges from 60 to 120, note width ranges from 1 step to 4 steps, note offsets ranges from 0% to 45%.

Now you can edit in a flash selected note parameters:

- Rotate encoder 1 to transpose notes
- Rotate encoder 2 to transpose notes, by octaves
- Rotate encoder 3 to increase/decrease note velocity
- Rotate encoder 4 to increase/decrease note width
- Rotate encoder 5 to increase/decrease note offset
- Press < or > to move horizontally the selection

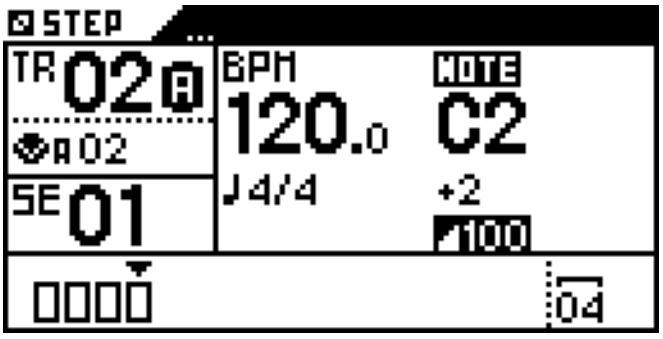
TIP In **POLY EDITING** mode, you will edit only the current note of the selection. In **MONO EDITING** mode, you will edit all notes of the selection.

TIP Hold rec to select the entire track, instead of pressing the first and the last step. For example, hold rec and rotate 1 to transpose all notes.

NOTE LEARN WITH A KEYBOARD

Use your external keyboard to set the current note, or even a chord, in a flash!

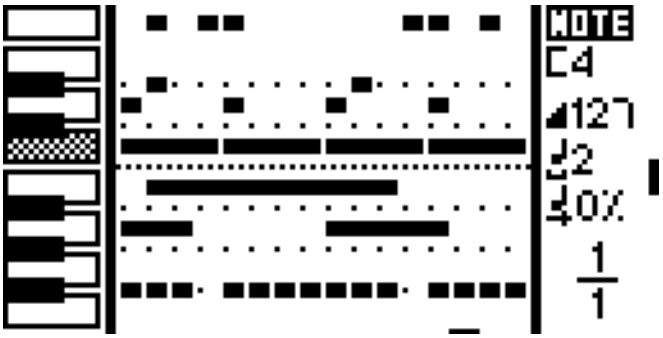
The current step can be filled with a note received on the MIDI input, (for example C3#). You can also perform a chord with your external keyboard (for example C2+2) instead of a note. So you can fill your step sequence with custom chords:



TIP You can also press a keypad while holding to directly select a note. Select multiple notes to quickly create a custom chord. Pressing < or > while holding allows you to jump octaves.

PIANO ROLL

Press DISP to view the piano roll sequencer:



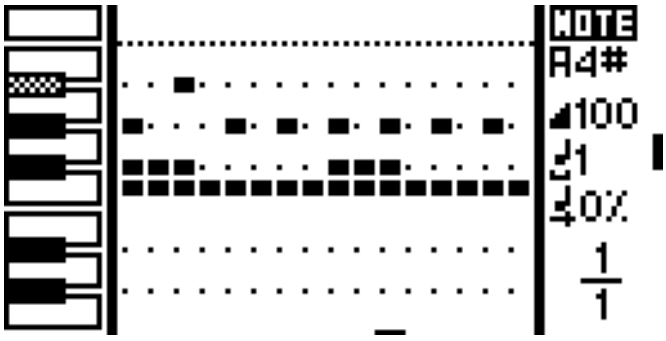
An example of a track, programmed with notes of different lengths. You are viewing the page 1 of 1 page. The current note is C4, the current velocity is 127, the current note length is 2 steps and the current offset is 0%. If you press a step to add a note, the note will be added with these parameters.

It's a great way to see the notes you are editing, for example:

- In **POLY EDITING**, hold rec and rotate to transpose the current notes of the track (e.g. all C4 notes).



- In **POLY EDITING**, hold a step and rotate to transpose only the current note of the step.



● In **MONO EDITING**, hold rec ○ and rotate ◉ to transpose all notes of the track.



● In **MONO EDITING**, hold a step ▪▪▪▪▪▪▪▪ and rotate ◉ to transpose all notes of the step.



TIP Press **STEP** to go to the nearest note. Press **STEP** again to go to the next nearest note.

Chord Stepmode

This mode is similar to Note Stepmode except the steps are filled with chords.

ADD CHORDS

Select a chord degree on the screen with ◉:



TIP Hold **2ND** and rotate ◉ to change the chord tonality.

Press a step pad ▪▪▪▪▪▪▪▪ to fill it with a chord. A step filled with a chord is semi-highlighted.

TIP Preview the selected chord by pressing ◉.

You can only add one chord per step. If you add a chord to a step that has already been filled, the previous chord will be replaced with the new one.

There are 7 chord degrees across the 10 octaves:
I II III IV V VI VII
These are the same chords you will find on the Live Mode's chord smartpads (chord degree I is smartpad 1, chord degree III is smartpad 3, etc.)

The chord tonality (by default **CMAJ**) and the chord complexity (by default **3**) can be set in the Live Mode using the chord smartpads.

Note: Read the Live Mode section for further details about chord generation.

QUICK STEP EDITS: VELOCITY, WIDTH, OFFSET, TRANSPOSE, MOVE HORIZONTALLY

As in Note Stepmode, you can edit the **velocity**, **note width** and **offset** of a chord.

PIANO ROLL

Press DISP to view the piano roll sequencer:

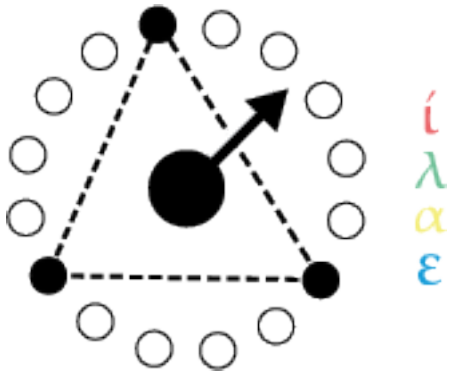


An example of a track, programmed with chords of different lengths. You are viewing the page 1 of 1 page. The selected chord root note is E4, the current velocity is 100, the current note length is 1 step and the current offset is 0%.

Euclid Stepmode

The Euclidean sequencer provides one of the most intuitive ways to create uncommon and rich rhythmic patterns.

Originally derived from nuclear physics, and then applied to music theory, an Euclidean algorithm evenly generates distributed notes (fills) among a defined number of available slots (steps).



This leads to a great number of well-known rhythm patterns, as well as many odd-sounding ones. Almost all traditional rhythms from across the world can be generated with this tool, which is why we decided to implement on the Pyramid.

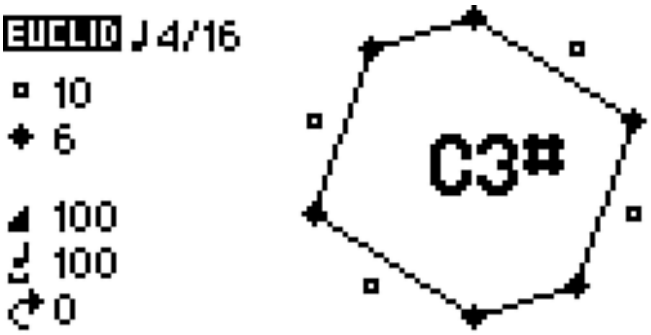
The EUCLID stepmode takes exclusive control of the track player. You can't use it together with NOTE and CHORD stepmodes. When you change stepmodes, EUCLID is activated at the STEP pad release, and NOTE + CHORD stepmodes are disabled. As soon as you switch to NOTE, CHORD, CC MESSAGES or EFFECTS stepmodes, EUCLID is disable again.

Hold **euclid fills** and rotate to select the number of notes in your EUCLID pattern. Hold **euclid step** and rotate to select the number of steps in your pattern. Press **2ND** + < or **2ND** + > to rotate the pattern. Turn to change the triggered note (for example **C3♯**) and use **note width** to change the gate.



By default, there are 16 euclid steps (1 bar) and 4 euclid fills.

Press DISP to view the Euclidean circle:



TIP Steps that are filled with notes are displayed on the pads. You can press a pad to add or remove steps and thus create your own pattern.

You can create multiple euclidean tracks to generate complex rhythmic patterns. Each pattern will be 1 bar or shorter in length, but if each bar is a different length, they will shift against each other creating a constantly changing loop.

TIP Decrease the time signature lower number to multiply the euclidean pattern length. By default the time signature of a euclidean track is 4/16 (1 bar long) but you can set a 4/8 time signature (2 bars long), a 4/4 time signature (4 bars long)…

CC messages Stepmode

This stepmode allows you to create CC automation.

CREATE STEP AUTOMATION

Using select a CC message (**0** to **119**), **PITCH BEND**, **PRESSURE** or **PROGRAM CHANGE** message you want to automate. Hold **2ND** and rotate to scroll the CC list faster:



PITCH BEND message is selected, the current value is 63

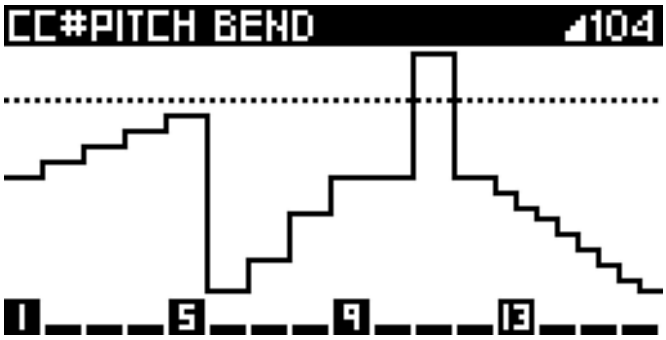
Now you can fill steps with the selected CC message. Hold **velocity** and rotate (or hold **velocity** and slide the touchpad from left to right) to select a CC value, from **0** to **127**:



PITCH BEND automation is selected, the current value is 127 (if you press a step, a pitch=127 message will be added)

Continue to hold **velocity** while activating step pads ■□■■■■■■ to create steps with different CC values.

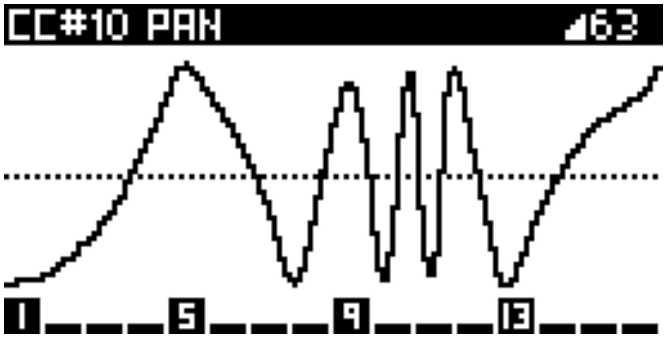
At any moment, press DISP to display the automation:



A 16-step automation of the PITCH BEND message. The dotted line represents the current CC value.

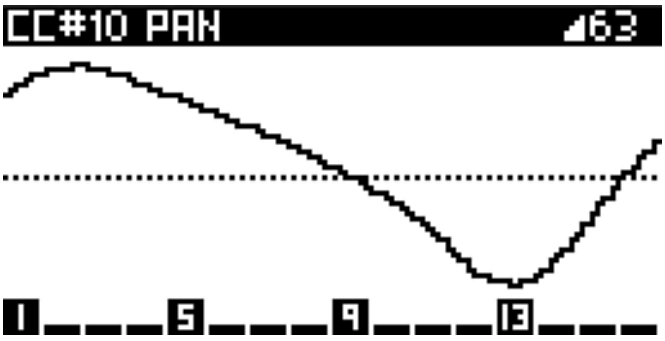
TIP Press ASSIGN to activate ENCODER STEP EDIT. This allows you to select the current CC value directly with the touchpad X axis ▭ or with encoder 3.

This stepmode can also be used to display and edit automation recorded in live mode, for example CC10 value performed with the touchpad:



A live recorded automation of the CC10 (PAN) message.

As in other stepmodes, you can **zoom** to increase the step resolution and navigate the automation pages with < and >:



A live recorded automation of the CC10 (PAN), zoomed.

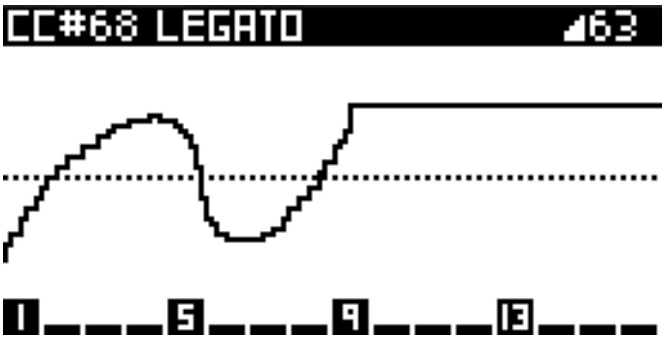
You can create an infinite number of automation on the same track. Rotate ◉ to select another CC message and program another automation!

TIP Press the menu encoder to preview the current (dotted line) CC value.

TIP Press **STEP** to go to the nearest CC automation. Press **STEP** again to go to the next nearest CC automation.

DRAW AUTOMATION

Hold rec ○ while sliding the touchpad to draw a CC automation. Very useful for experimenting with complex automation in a flash!



Each new automation drawn will delete existing automation.

STEP-LOCK AUTOMATION

Hold a step ■□■■■■■■ and rotate the encoder 3 to increase or decrease the step's automation. Very useful for quickly creating step-lock automation.

You can also increase or decrease a row of steps ■■■□□□■■, by pressing the first and last step, and rotating the encoder 3.

TIP Hold rec ○ and rotate 3 to equally increase or decrease all the values of an existing CC automation.

Effects Stepmode

This stepmode allows you to create FX parameter automation. First, you need to add at least one effect with the FX manager on the current track, for example an arpeggiator.

CREATE STEP AUTOMATION

In **EFFECTS** stepmode, select the effect parameter you want to automate by rotating :



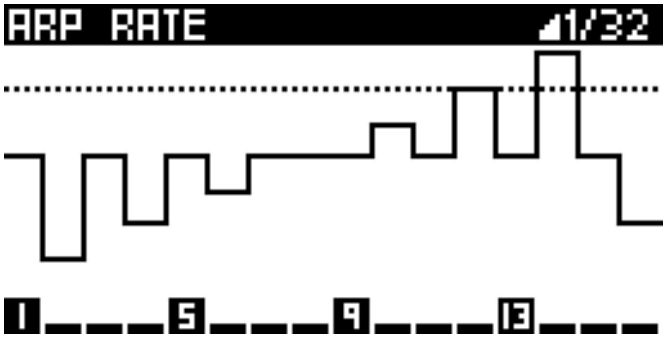
ARPEGGIATOR effect: RATE parameter is selected, the current parameter value is 1/4.

Now you can fill steps with FX parameters. To choose the parameter value, hold **velocity** and rotate (or hold **velocity** and slide the touchpad from left to right):



ARPEGGIATOR effect: RATE parameter is selected, the current parameter value is 1/32 (if you press a step, a rate=1/32 message will be added).

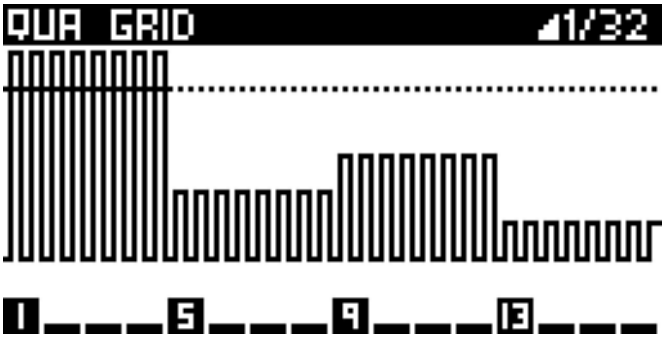
Fill some steps with different parameters values. Press DISP to display the automation:



A 16-step automation of the ARPEGGIATOR effect: RATE parameter.

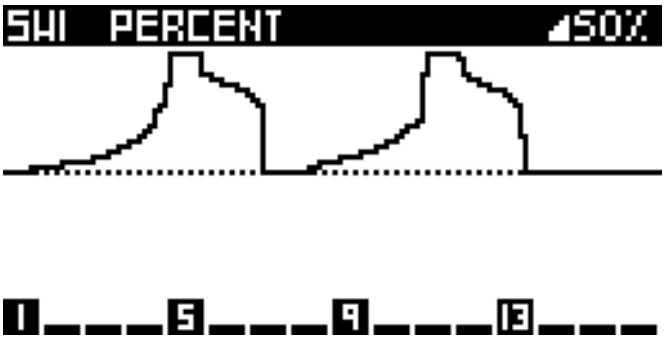
TIP Press ASSIGN to activate **ENCODER STEP EDIT**. Then you can select the current FX value directly with the touchpad X axis or with the encoder **3**.

As in other stepmodes, you can **zoom** to increase the step resolution and navigate the automation pages with < and > to create complex automation:



A 64-step automation of the QUANTIZER effect: GRID parameter

This stepmode can also be used to display and edit automation recorded in live mode, for example a swing automation performed with an encoder:



You can create an infinite number of automation on the same track. Rotate to select another effect parameter and program another automation!

DRAW AN AUTOMATION

Hold rec while moving your finger across the touchpad to draw FX automation. Very useful for experimenting with complex automation!

Newly drawn automation replaces all prior automation on that track.

STEP-LOCK AUTOMATION

Hold a step and rotate **3** to increase or decrease that step's automation value. Very useful for quickly creating step-lock automation.

You can also edit FX parameters on a sequential range of steps . Select a range of steps by holding the first and last step and rotate the encoder **3**.

TIP Hold rec and rotate **3** to increase or decrease the whole existing FX automation.

Track player: pages, zoom and length

The track player zone displays data on of the current track:

- ⌐ Track length (number of bars ▮)
- ▯ Page position (viewed bars on the 16 pads)
- ▾ Player position (sequencer track progression)

A default track is 4-bars long. Therefore, the track player zone displays 4 white bars: they are the 4 bars you can see on the 16 pads (currently viewed page) in Step Mode. These 16 pads represent 16 steps = 16 quarter notes.



If you want to program a longer or shorter track, hold **TRACK** + **length** and rotate to change the bar number of the track to 16 bars for example:



Press < or > to navigate through the pages:



TIP Hold < or > to quickly navigate.

To change the pad resolution, hold **TRACK** + **zoom** and rotate . For example, 2 bars are displayed in 200% zoom on a row of 16 pads, also called a page. In 400% zoom, only 1 bar is displayed.



TIP Microscope mode: 1600% zoom provides you with the highest degree of precision to edit your track step by step.

Note: All examples given reference a standard 4/4 time signature. Pages ▯ always represent a 4/4 bar. This convention is used because all 16 physical pads can be divided into four 4/4 bars. For all other time signatures, ▮ represents all pages, and ▯ represents the currently active group of 16 pads.

Rotate

In stepmodes **NOTE**, **CHORD** and **EUCLID**, press **2ND** + < or **2ND** + > to shift the track one step left or right.

Zooming in changes the track resolution (step length) and allows you to rotate your track with increasing precision..

TIP Press **2ND** and hold < or > to quickly rotate your track.

Copy/Paste

Press **2ND** + **copy** + any step ▪▪▪▪▪▪▪ to copy all the notes and/or automation contained in a step.

You can copy multiple steps by pressing **2ND** + **copy** + the first and the last steps ▪▪▪▫▫▫▫ of your selection.

You can paste notes and automation in the current track or in another track by pressing **2ND** + **paste** + the step ▪▪▫▪▪▪▪ you wish to paste into.

*Note: copy/paste is not available in **EUCLID** stepmode.*

Delete

Press **2ND** + **delete** + any step ▪▪▫▪▪▪▪ to delete all the notes contained in the step.

*Note: delete is not available in **EUCLID** stepmode.*

Encoder step edit

At startup, the 5 encoders ●●●●● can be used to assign a CC or FX parameter, in every mode. But they can do more. In **STEP** mode, you can decide to assign directly the 5 encoders and the touchpad to step shortcuts.

Simply press ASSIGN to enable the “encoder step edit” feature:



It’s a great way to quickly edit your notes and automation, you no longer have to rotate while pressing a green shortcut.

In stepmode **NOTE**, encoders & touchpad will control:

- **1 note**
- **2 note octave**
- **3 note velocity**
- **4 note width**
- **5 note offset**
- **touchpad X note velocity**

In stepmode **CHORD**, encoders & touchpad will control:

- **1 chord degree**
- **2 chord tonality**
- **3 chord velocity**

- 4 chord width
- 5 chord offset
- touchpad X chord velocity

In stepmode **EUCLID**, encoders & touchpad will control:

- 1 euclid steps
- 2 euclid fills
- 3 euclid velocity
- 4 euclid gate length
- 5 rotate
- touchpad X euclid velocity

In stepmode **CC**, encoders & touchpad will control:

- 3 CC value
- touchpad X CC value

In stepmode **EFFECTS**, encoders & touchpad will control:

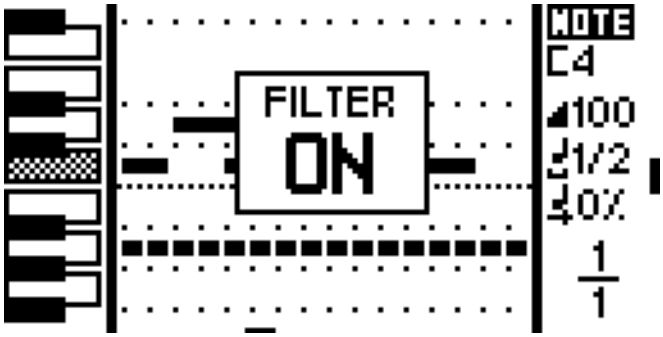
- 3 FX value
- touchpad X FX value

TIP In **LIVE** mode, you can also use the touchpad to set the velocity of the keyboard and the smartpads.

Press ASSIGN again to disable these shortcuts.

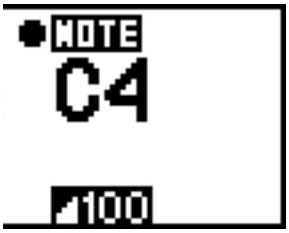
Filter

In stepmode NOTE and stepmode CC MESSAGES, press 2ND + **STEP** to activate the filter, in order to scroll only through programmed notes or CC messages. A popup is displayed for a few time:



For example, in NOTE stepmode, rotating will jump to the next programmed note (e.g. D4), useful if use a wide range of notes. In CC MESSAGES stepmode, rotating will jump to the next CC automation (e.g. Program Change).

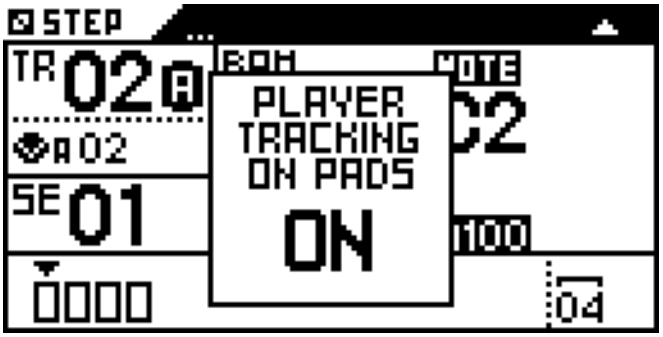
When the filter is activated, a circle pictogram is displayed next to the stepmode name:



Press 2ND + **STEP** to exit the filter mode.

Player tracking

The viewed page (viewed bars on the 16 pads) can auto-follow the player position if you press 2ND + DISP. Useful if you are working on multiple pages.

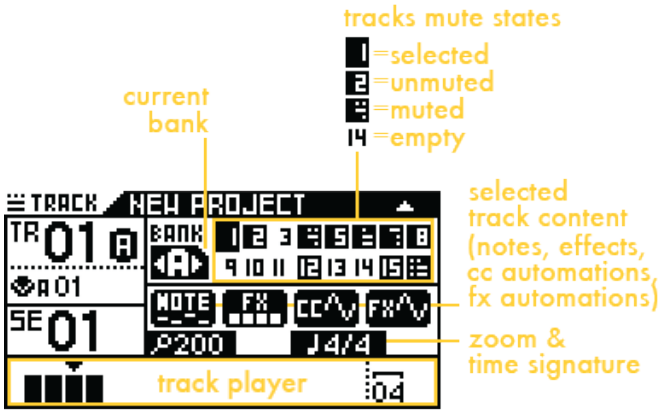


4 Track Mode

Track Mode has three purposes:

1. to configure the current track (MIDI channel, zoom, length, time signature) using the shortcuts before playing in Live Mode or programming in Step Mode
2. to mute/unmute the 64 tracks using the 16 pads and < >. This tactile, intuitive method allows you to perform your song on the fly
3. to build your current sequence (a set of the 64 muted/unmuted tracks)

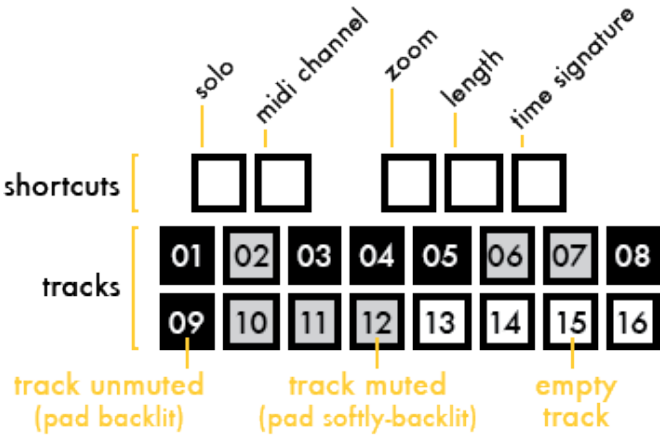
Screen



This display shows that TR01A is selected (current track) and contains notes, effects, CC automation and FX automation, with a 200% zoom and a 4/4 time signature.

Sequence SE01 groups 6 unmuted tracks of bank A: TR01A, TR02A, TR05A, TR08A, TR12A and TR15A. The other tracks are muted or empty.

Pads



Mute/unmute tracks on the fly

Press one of the 16 pads to mute or unmute a track in the current BANK. Change the current BANK (A/B/C/D) with < and >.

An empty track (without notes, effects, or automation) can't be muted.

When the sequencer is playing, tracks evolve in parallel even if they are muted: this enhances your ability to perform with tracks.

In the example below, 3 tracks are unmuted, 2 tracks are muted and all tracks are the same length:



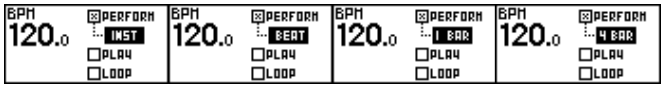
Tracks of different lengths are played simultaneously; shorter tracks will repeat before the others:



TIP Use different track lengths (for example 2 bars, 4 bars and 6 bars) to create a non-repetitive, evolving sequence.

MUTE/UNMUTE IN SYNC

Mute/unmute changes are in sync, depending on the **PERFORM** type selected in **SEQ** mode:



For example, if you unmute track 01, this track will be activated at the beginning of the next bar (if **PERFORM** = **1BAR** in **SEQ** mode). This allows you to play tracks by changing mute states in perfect sync.

To mute/unmute tracks instantly, select **PERFORM** = **INST** in **SEQ** mode.

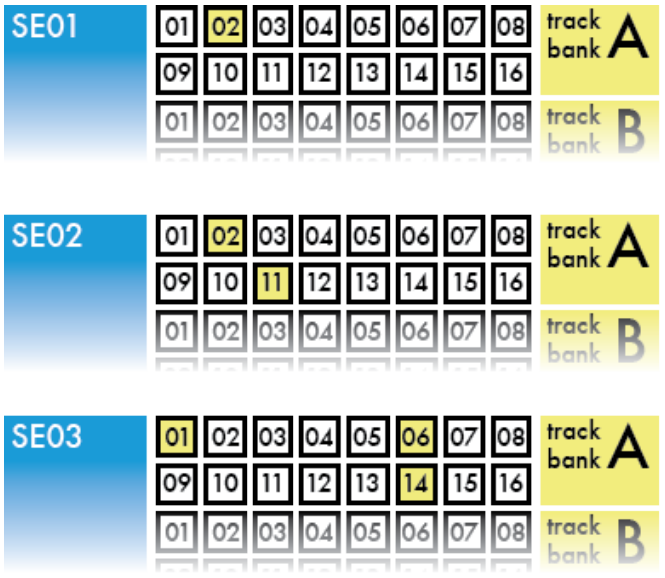
TIP SETTINGS > MISC > TRACKS MUTE allows you to specify that tracks mute/unmute in sync by selecting "SEQ PERFORM," or mute/unmute instantly by selecting "INST."

TIP You can always mute/unmute a track instantly by pressing **2ND** + its corresponding pad ▪▪▪▪▪▪▪▪.

Mute/unmute tracks to create sequences

A sequence is a set of 64 tracks, muted or unmuted. To build a sequence, mute and unmute tracks using the 16 smartpads ▪▪▪▪▪▪▪▪ and < >.

For example in **SE01**, only TR02A is unmuted. In **SE02**, TR02A and TR11A are unmuted. In **SE03**, TR01A, TR06A and TR15A are unmuted:



Once you have created your sequences, jump to Seq Mode to launch them, or program a chain of sequences to create a complete structured song.

SAVE MUTE STATES OFF

By default, track mute states changes are saved in the current sequence (rec O is lit). If you mute or unmute a track, the sequence will save the mute states.



Press rec O to disable saving sequence mute states (**REC** led will be OFF). If you mute or unmute a track, the sequence will not save the mute states. This allows you to mute and unmute tracks in **TRACK** mode, without losing your sequence's track states. Switching a sequence restores it to its "default" state.

Solo a track

Hold **solo** and select a track with the pads ▪▪▪▪▪▪▪▪ to solo a track.

To cancel solo, press any track ▪▪▪▪▪▪▪▪.

MIDI Channel

Pyramid includes two MIDI outputs, one USB MIDI output, and one CV/Gate (analog) output.

Each MIDI output provides 16 channels, which means that you can control up to 16 electronic musical instruments per MIDI output.

Hold **MIDI channel** and rotate ◉ to select the MIDI channel of the current track.

TIP Hold **MIDI channel** and press and rotate ◉ to select the MIDI output of the track. A message pops up, displaying the selected output type (**MIDI A**, **MIDI B**, **USB**, **CV**) and channel number:



TIP You can link the track to two different outputs, for example both MIDI A and MIDI B or CV/Gate and USB.



The output channel is always displayed under the track number:



MIDI B CHANNEL 01 + USB OUT CHANNEL 01 is set

Note: DIN sync output (also called SYNC24) is available on MIDI port B. You can enable and configure it using the Settings menu.

Zoom

Hold **zoom** and rotate to set the resolution, from 25% to 1600%:



A 100% zoom means that 1 step = 1 quarter note.

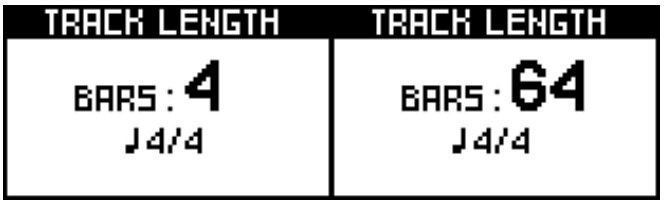
A 200% zoom doubles the resolution: a quarter note is divided into 2 steps. With a 1600% zoom, a quarter note is divided into 16 steps. Edit your track with surgical precision.

A 50% zoom decreases the resolution. This is useful if you want to have a global view of your track: two quarter notes become one step.

Note: please read the Step Mode section "Track player: pages, zoom and length" for further details about the zoom feature.

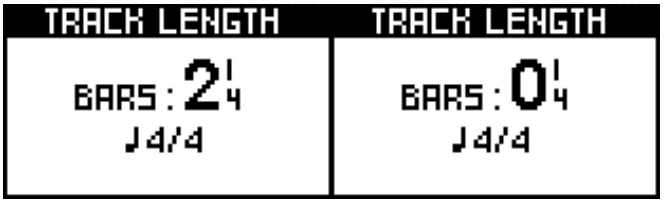
Length

Hold **length** and rotate to increase or decrease a track's length in bars:



A length of 4 bars, a length of 64 bars.

Hold **length** and press + rotate to set the track's length with step precision:



A length of 2 bars + 1 quarter note, a length of 0 bar + 1 quarter note (1/4 bar = 1 quarter note).

TIP Remember, in every mode, hold **TRACK** to activate the following shortcuts:

- **solo**
- **MIDI channel**
- **zoom**
- **length**
- **time signature**

Copy/Paste/Delete a track

Press **2ND** + **copy** + a track to copy it.

Press **2ND** + **paste** + a track to paste it.

TIP Copy/paste is very useful to create a new pattern from an existing track. Copy saves track settings + notes + automation + effects.

Press **2ND** + **delete** + a track to delete it.

Time signature and polyrhythm

Create cross-rhythms and pattern variations! The **4/4** standard time signature often sounds good, but sequencing with other time signatures is an easy way to add complexity and originality to your songs.

In SETTINGS>MISC>SIGNATURE, you can choose how your track time signature will be interpreted by Pyramid: either Polyrhythms (default) or Polymeters.

- If Polyrhythms is selected, Pyramid apply true polyrhythms when different time signatures are used. If you select a 3:4 time signature you will have bars of 3

quarter notes, but the bar will have the same duration as a 3/4 bar. The bar size is the same, but the beat differs.

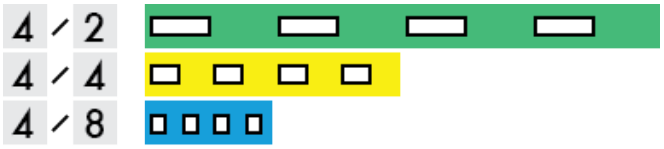
● If Polymeters is selected, all quarter notes remain the same. If you select a 3/4 time signature you will have bars of 3 quarter notes, and each quarter note will have the same length than the 4/4 ones. The length of the bar differ, but the beat unit remains the same. The polymetric mode is easier to understand than the Polyrhythmic one because it doesn't mix several speeds.



The lower number works the same in Polyrhythms or Polymeters. By default the time signature's lower number is set on 4, which means "quarter note". It can also be set on 2 "half note", 8 "eighth note" or 16 "sixteenth note" by holding **time signature** and pressing + rotating :



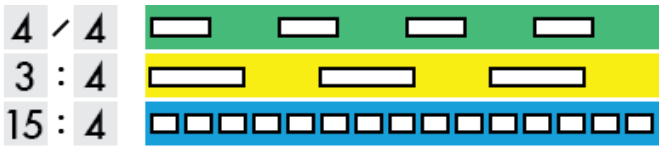
Each increment multiplies or divides the basic /4 bar length by 2:



POLYRHYTHMS SIGNATURE (X:4) (DEFAULT)

With Pyramid you can mix a **4/4** track with a **5:4** track, a **9:4** and a **15:4** track: true polyrhythms! Tracks with different time signatures are synchronized and will loop at the same time, but steps follow their own path. The bar size is the same, but the beat differs. Of course you may still use all functionalities such as track length, zoom, offset and effects, as the PyraOs core system is based on Polyrhythm.

The length of a bar is the same whether you set a common **4/4** signature or you choose an odd one such as **15:4**. For example, at **120 bpm**, a bar in **4/4**, **3:4** or **15:4** will last 2 seconds, and will loop at the same time:



The difference is the length of each quarternote. If you increase the time signature's upper number, it will increase the number of quarternotes in one bar: **4/4** means **4** quarternotes in a bar, **15/4** means **15** quarternotes in a bar.

Hold **time signature** and rotate to change the time signature's upper number on the current track:



You can adjust the track's length to 4 bars to work achieve a 7:4 time signature (28 quarter notes) or any other track length you choose (for example 2 bars + 2/7ths quarter notes).

POLYMETERS SIGNATURE (X/4)

With this setting, all quarter notes will remain the same as a **4/4** beat, but the length of your loop will be different. Your loops will shift against each other as they play: this is polymetry!

In other words, the length of the bar differ, but the beat unit remains the same.



- The 1st track is a standard **4/4 bar**
- The 2nd track is a **3/4** bar (3 quarter notes)
- The 3rd track is a **5/4** bar (5 quarter notes)

Hold **time signature** and rotate to change the time signature's upper number on the current track:



Track length fraction and polymetry

Changing the length of a track is an other way to create polymeters.

Let's say we are working with a **1** bar track and a **4/4** time signature. Each step represents a quarternote.

Hold **length** and press + rotate to add or remove one quarternote (one step) to the length of the selected Track. This leads to the following possibilities:



- The 1st track is a standard **4/4** bar
- The 2nd track is a **4/4** bar with **1** removed quarternote
- The 3rd track is a **4/4** bar with **1** added quarternote

The length of your loops are different, so they shift against each other as they play. The length of the bar differ, but the beat unit remains the same.

Using polymetric patterns is a good trick to create lively, ever-changing and lengthy sequences. In the following example, the sequence composed of 3 short tracks will get back to its starting point after 15 loops of the standard **4/4** track:



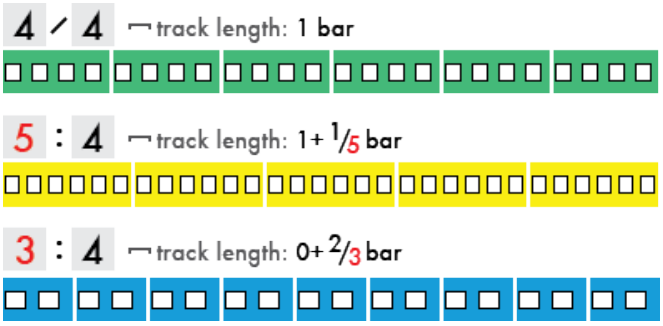
TIP Link these 3 tracks to the same MIDI channel (ie to a unique musical instrument) to create a progressive pattern.

Irrational rhythms (advanced users)

An irrational rhythm uses step durations that lie outside the scope of the **4/4** system and loop on a different bar length.

Create a polyrhythmic (tracks with different time signatures) and polymetric (tracks with different bar lengths) sequence to experiment irrational rhythms! Both the measure size and the beat differ.

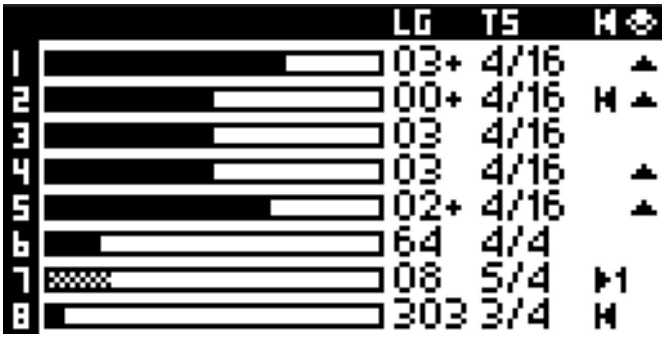
In the example below you get a simple overview of all these concepts for 3 simple tracks:



This sequence will get back to its starting point after 6 loops of the **4/4** track. Within the sequence, track quarternotes are never on time because of the beat phase shift.

DISP track view

Press DISP to display your tracks progressions and easily understand your track polymeters:

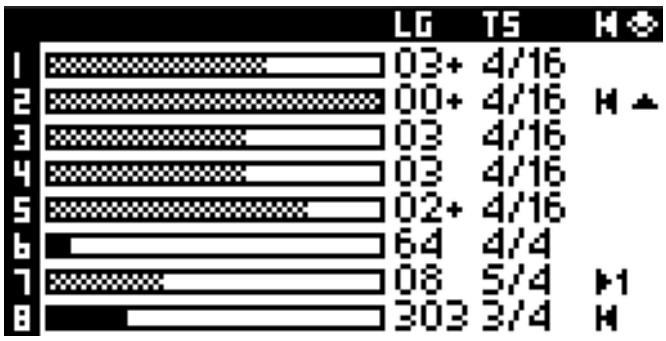


This screen displays:

- Track number: from 1 to 16
- Track progression: percentage of the loop being played
- Track bar length
- Track time signature
- Run modes: **RELATCH**, **TRIG** or **FREE** (nothing displayed)

- Output: flashes if the track is sending events via MIDI, USB or CV/GATE.

Muted tracks are shaded:



The DISP view displays tracks from TR01 to TR08 of the selected bank. If you press DISP again, it will display TR09 to TR16 tracks. You can also use the menu encoder to select the displayed tracks.

With DISP activated, the 16 pads flashes when tracks send MIDI events (notes and CC messages).

Microstep track

To create a Microstep track, set the track length on **0+1**/**4** bar, the zoom on 1600% and increase the time signature lower number to **4**/**16**. The step-by-step player will run at high speed, which is very useful to create drones, black midi and glitch sounds, and to expand the boundaries of your instruments.

5 Seq Mode

After creating your tracks in Live and Step mode, and assembling them into several sequences in Track mode, you are now able to play with the sequences.

Seq Mode is the second way to perform your song. Instead of muting/unmuting tracks like you do in Track Mode, Pyramid offers an advanced system of playing sequences:



PERFORM: launch your sequences on the fly. You can select the delay Pyramid will wait until playing the next sequence (Instant, 1 Beat, 1 Bar, 2 Bars, …8 Bars). It's a great creative tool to improvise with total freedom, while always remaining in sync!

PLAY: play straight through a sequence arrangement (chain) programmed using the project song zone.

LOOP: loop a sequence arrangement (chain) programmed with the project song zone.

When your sequences are playing, remember that you can still enter ***TRACK*** *mode to change mute states of the currently playing sequence; enter* ***LIVE*** *mode or* ***STEP*** *mode to play, rec or program notes and automation on the current track.*

Screen



the Seq mode screen displays a 4/4 beat progression in sync with the BPM (4 beats = 1 bar):

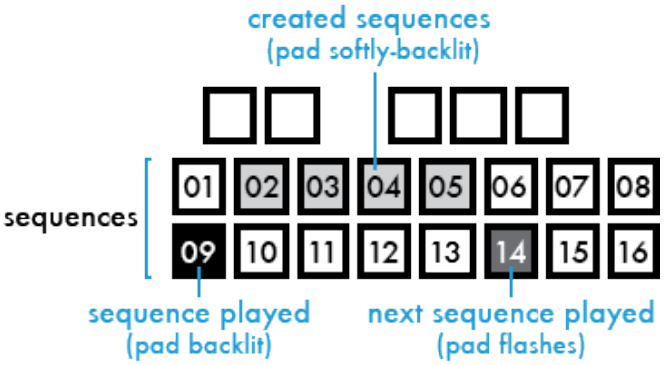


Below, the full length progression of a sequence is displayed. For example, if the current sequence contains a 3 bar track and a 4 bar track, the sequence will be 12 bars long (number of bars after which all tracks restart at the same time again). This progression zone will be 100% filled after 12 bars.

Note: On all 4 modes, Pyramid displays the current sequence and the next sequence to be played if there is one:



Pads



Create and edit sequences

In **TRACK** mode, hold **SEQ** and select the sequence you want to create or edit with one of the 16 pads .

To display sequences from SE17 to SE32, hold **SEQ** and press >

The current sequence number is displayed on the screen:



Then mute/unmute your active tracks to build the sequence. As soon as you made a mute state change, the sequence is created.

When selecting an empty sequence, Pyramid will copy the previous mute states, so you can perform your live set without blanks!

Selecting a sequence can only be done with SEQ PERFORM enable. This action is non available with SEQ PLAY or SEQ LOOP enable, because the sequencer will play the defined sequence chain (and therefore the selected sequence = the played sequence).

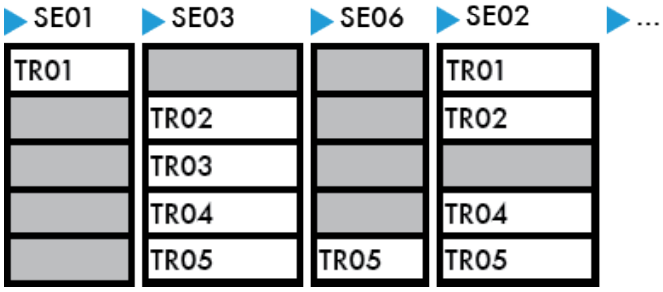
"PERFORM" project



This mode allows you to build a song from sequences in a free and creative way, while always remaining in sync.

At startup, **PERFORM** is activated and the sequence **SE01** plays in a loop.

Press any sequence number to launch it on the fly. Pyramid waits until the current sequence ends (the end of the bar, if "1 BAR" selected) and then it launches the new sequence right away. The new sequence will then play in a loop until you press another sequence number.



In the example above, Pyramid plays SE01, where only the TR01 is unmuted. The user then presses SE03 which starts as soon as the SE01 ends. Tracks: TR02, TR03, TR04 and TR05 play together in a loop until the user presses another sequence.

PERFORM DELAY SELECTION

You can select the delay Pyramid waits before switching to the next sequence.



INST: The next sequence will be launched instantly, without delay.

BEAT: The next sequence will be launched at the next beat of the current sequence.

1 BAR: The next sequence will be launched at the next bar of the current sequence.

2 BAR …8 BAR: The next sequence will be launched at the modulo (2, 3, 4, 5, 6, 7 or 8 bar) of the current sequence.

"PLAY" project

This mode allows you to program a set of sequences to compose a complete song ready to play.

Before enabling **PLAY PROJECT**, you need to design your chain of sequences.

Rotate clockwise to highlight the first sequence slot:



Press to make your selection and rotate to choose the first sequence in the chain, for example **SE03**:



Press to confirm and rotate to choose the number of bars this sequence will play. A sequence can be between 1 bar and 64 bars length, or can be shorter that on bar (1/4 bar, 2/4 bar, 3/4 bar...)



For your information, the screen indicates the full length of the sequence. This is the number of bars after which all tracks are perfectly sync again, if using different track length. For example a sequence with a 3 bar long track and a 4 bar long track has a total length of 12 bars.

Press to confirm:



Repeat this one-handed operation to create a sequence chain as long as you choose, there is no limit to the number of sequences you can chain:



Select the **PLAY PROJECT** Submode:



The player stops and stands ready to play the programmed sequence chain. Press play ▶II to launch your project. Once the song is finished, the player stops and waits for another press of ▶II.

Once the chain is programmed, you can change the number and the length of a sequence, and even move it and delete it.

"LOOP" project

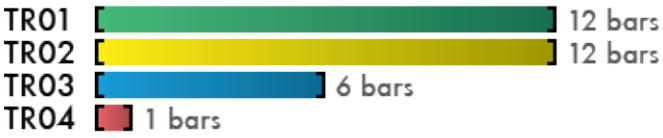
It's exactly the same mode as the "PLAY" project, except the sequence arrangement loops creating an infinite song.



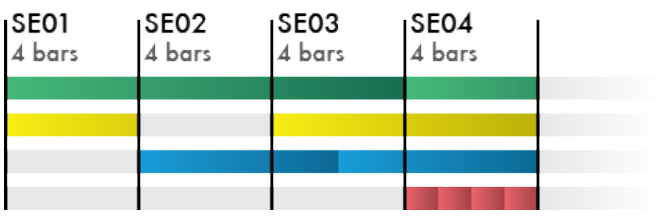
Note about track lengths concurrence & sequences

One of Pyramid's great features is when switching from one sequence to another a track active in the prior sequence keeps playing from its last position. We call it FREE run mode (enabled by default).

In the example below, you see 4 tracks:



If you play these tracks organized in sequences:



TR01 is unmuted in all sequences: it plays fully.

TR02 is muted in **SE02**: it replays from the start in **SE03**.

TR03 is 6-bars long: it replays from the start in the middle of **SE03**.

TR04 is only 1-bar long: it loops in **SE04**.

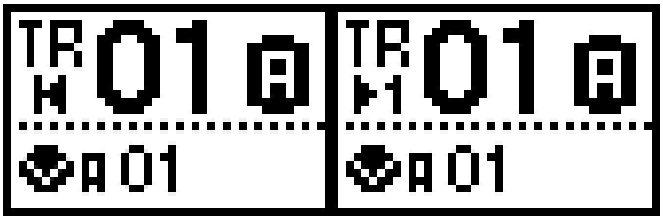
Track run modes: FREE, RELATCH & TRIG

By default tracks play concurrently in FREE run mode. Each track can also be configured in RELATCH or TRIG run modes:

RELATCH (⏮ icon displayed under TR): when a new sequence starts, the track always restarts at its beginning. It's an easy way to sync tracks.

TRIG (⏯ icon displayed under TR): the track plays once at the beginning of the sequence and does not loop. The track is simply triggered and stops when it reaches its end.

To change the track run mode, enter **TRACK** mode, hold **TRACK** and rotate ●:



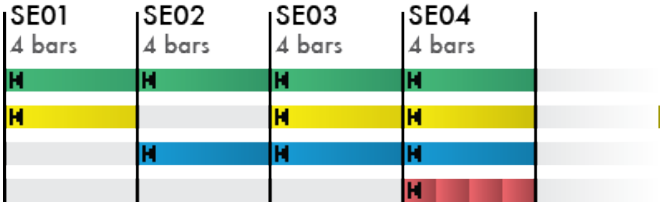
TR01A configured as a RELATCH track, and as a TRIG track.

RELATCH RUN MODE

Each of these 4 tracks are configured in RELATCH run mode:



If you play these tracks organized in sequences:

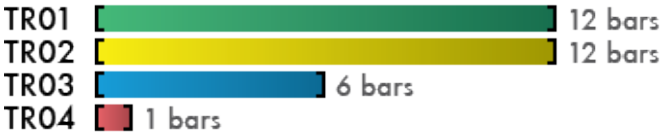


If an active track in the sequence is set to RELATCH, it will always start from the beginning of each sequence,

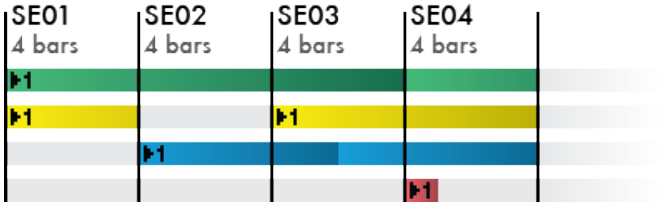
even if the track is not finished yet. In other words, each track restarts at the beginning of each sequence.

TRIG RUN MODE

Each of these 4 tracks are configured in TRIG run mode:



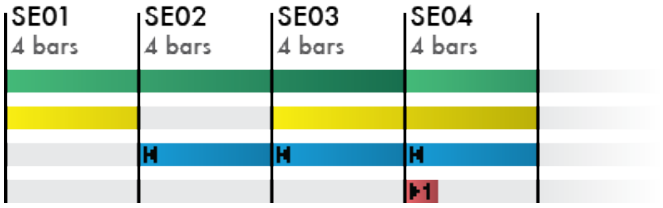
If you play these tracks organized in sequences:



If an active track in the sequence is set to TRIG, it will play once without looping. If the track is active in the next sequence, it will continue to play just as in FREE run mode.

FREE, RELATCH & TRIG MIXED

A great way to add complexity to your song is to use different run modes for different tracks. Performing sequences just goes one step beyond!



Copy/Paste/Delete a sequence

Press **2ND** + **copy** + a sequence to copy it.

Press **2ND** + **paste** + a sequence to paste it.

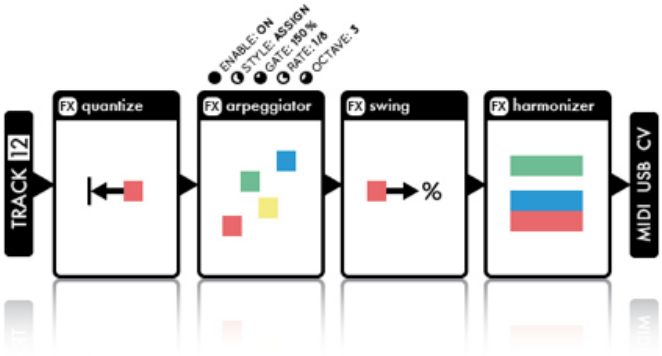
Press **2ND** + **delete** + a sequence to delete it.

6 Effect Manager

Effect manager principles

You can add up to 4 real-time MIDI effects per track, from TR01A to TR16D. Notes (played or recorded in **LIVE** mode, or programmed in **STEP** mode) are processed and sent to the outputs in real-time by the effect engines. All the effects are non-destructive.

The position of an effect in the chain is very important: an Harmonizer placed after an Arpeggiator will not sound like an Arpeggiator placed after an Harmonizer. Experiment with the order of effects to generate eccentric melodies. It's also possible to add multiple effects of the same engine on the same track (e.g. chaining two arpeggiators).

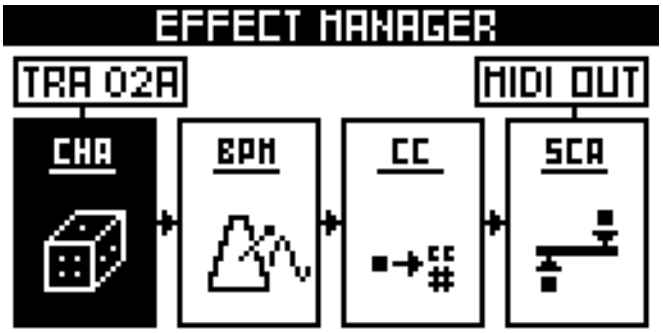


With the effect manager activated, you can still play notes and smartpads in **LIVE** mode even if Pyramid is stopped or paused, very handy to experiment with effect parameters. You can also add notes in **STEP** mode, mute/unmute tracks in **TRACK** mode, launch sequences in **SEQ** mode.

Effects compute notes according to the track time signature, so if you change the time signature from 4/4 to 4/8, effects will operate twice as fast.

Finally, all the effect parameters can be edited in real-time using the programmable controllers, even if you are not in the FX manager. You can even automate parameters in REC mode or even step (parameter locks).

Some examples of MIDI FX chaining:





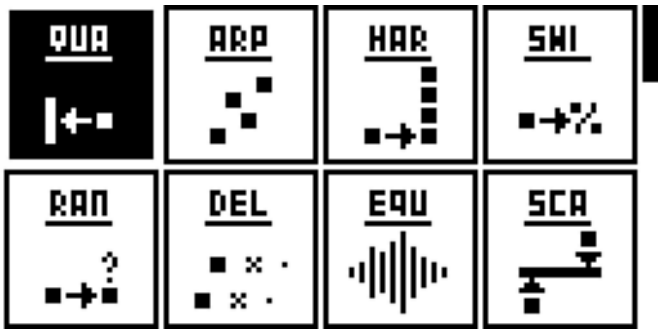


Adding effects to a track

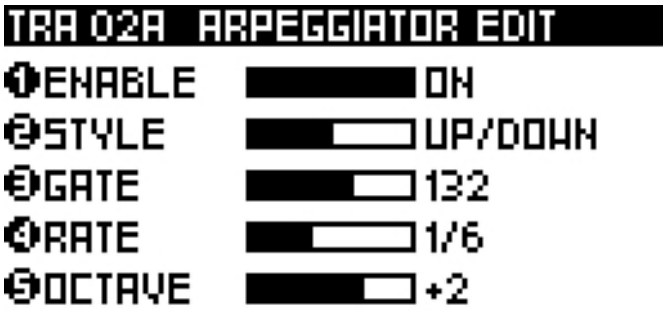
Press FX to display the Effect manager of the current track:



To place an effect in the chain, select one of the 4 racks and press :



Select an effect from the list, for example an arpeggiator, and press ◉ to add it. It is now possible to edit the effect using the 5 encoders ●●●●● to find a preferred setting:



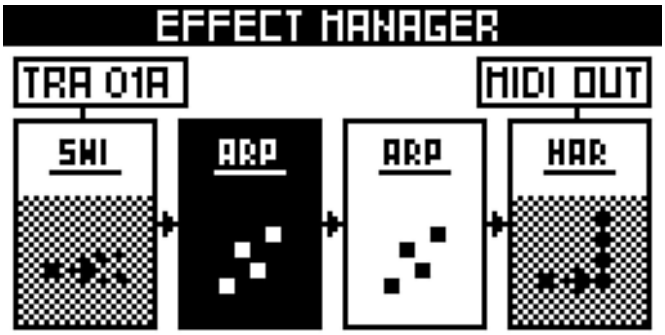
TIP In **LIVE** mode, when you are editing an effect using the 5 encoders ●●●●●, press rec ○ to directly record effect parameter automation.

Press again ◉ to go back to the FX manager. Repeat this operation to fill up to 4 racks:



The Quantizer can only occupy the first position. If you attempt to add the Quantizer on another rack, the effect manager will automatically move it to the first position.

A disabled effect is greyed (in the screen below, the SWING and the HARMONIZER are disable):



To exit the effect manager, press FX.

Other tools

Rotating ◉ while pressing **2ND** allows you to change the position of the selected effect. The Quantizer can't be moved.



Edit, delete or replace an effect by selecting it with ◉:



Quick FX selection:

- Press encoder 1 to enter the configuration page of an effect in slot 1.
- Press encoder 2 to enter the configuration page of an effect in slot 2.
- Press encoder 3 to enter the configuration page of an effect in slot 3.
- Press encoder 4 to enter the configuration page of an effect in slot 4.

Quick FX enable/disable:

- Press encoder 2ND + 1 to turn on/off the effect in slot 1.
- Press encoder 2ND + 2 to turn on/off the effect in slot 2.
- Press encoder 2ND + 3 to turn on/off the effect in slot 3.
- Press encoder 2ND + 4 to turn on/off the effect in slot 4.

TIP Selecting another track with **TRACK** + ▪▪▪▪▪▪▪▪ does not exit the FX manager, useful to check if effects are added in the other tracks.

Effect list

QUANTIZER / HUMANIZER

Eliminates or adds imprecision to your performance or step note edits.



ENABLE
ON OFF

Activate/disable the quantizer / humanizer engine.

GRID
1/4 1/6 1/8 1/12 1/16 1/24 1/32

Amount of quantization. A grid of 1/4 bar will move notes (forward or backwards) to the nearest beat.

HUMAN-
0 … 10

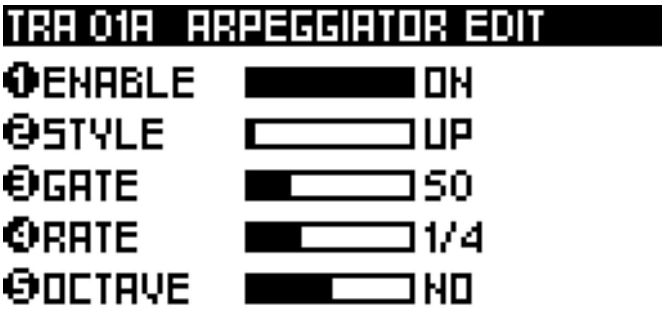
Amount of humanization advance. Moves notes backwards (millisecond level) randomly, to mimic the “organic” human playing.

HUMAN+
0 … 10

Amount of humanization delay. Moves notes forward (millisecond level) randomly, to mimic the “organic” human playing.

ARPEGGIATOR

Turns notes and chords into running patterns.



ENABLE
ON OFF

Activate/disable the arpeggiator engine.

STYLE
UP DOWN UP/DOWN RANDOM ASSIGN

Direction of the arpeggiated pattern. UP plays the pattern from the lowest note to highest. RANDOM will play notes in a random order. ASSIGN will play notes in the order they were played.

GATE
1% … 200%

Pattern note lengths, depends on the rate.

RATE
1/4 … 1/64

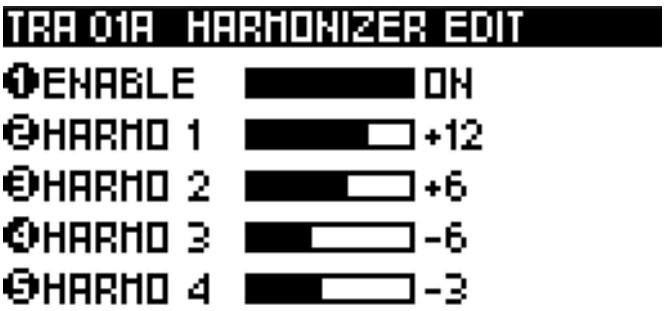
Speed of the pattern. A rate of 1/4 will play a note of the arppegio every beat.

OCTAVE
-5 … +5

To create octave shifted progression. If OCTAVE=1 the arpeggiator will play the original pattern, followed by the same pattern one octave higher. If OCTAVE=-2 the arpeggiator will play the original pattern, followed by the same pattern one octave lower, followed by the same pattern two octaves lower.

HARMONIZER

Turns notes into chords.



ENABLE
ON OFF

Activate/disable the harmonizer engine.

HARMO1
-24 … +24

Add an extra note simultaneously with the sequenced note according to the selected interval (harmonic). If HARMO1=12, a note will be generated one octave higher. If HARMO1=NO, no note will be added.

HARMO2
-24 … +24

Add a second extra note.

HARMO3
-24 … +24

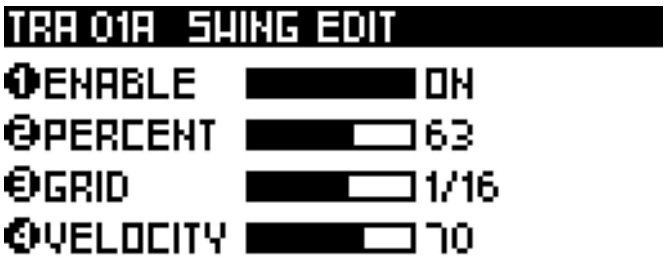
Add a third extra note.

HARMO4
-24 … +24

Add a fourth extra note.

SWING

Swing notes to create groove rhythms and easily go “off the grid”.



ENABLE
ON OFF

Activate/disable the swing engine.

PERCENT
50% … 99%

Percentage of swing (delay the position of every second point in the quantization grid). 50% (default) has no effect on note position.

GRID
1/1 … 1/64

Swing quantization grid, to define positions of second points. Most common grids are 1/8 and 1/16.

VELOCITY
0% … 100%

Amount of swing accent. 50% (default) has no effect on note volume. Decrease this parameter to accentuate the first note. Increase it to accentuate the second note.

RANDOMIZER

Randomly changes notes parameters (velocity, pitch or length).



ENABLE
ON OFF

Activate/disable the randomizer engine.

PARAM
VELOCITY PITCH NOTE LENGTH

Note parameter to be randomized.

RANDOM-
0 … 127

Negative amount of randomization. 0% (default) has no effect on notes. 100% set the maximum range of negative randomization.

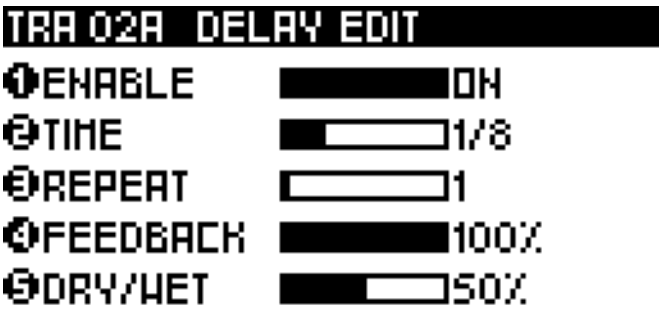
RANDOM+
0 … 127

Positive amount of randomization. 0% (default) has no effect on notes. 100% set the maximum range of positive randomization.

All random-based FX (Humanizer, Randomizer, Chance, Arpeggiator) utilize a True Random Number generator algorithm!

DELAY

MIDI delay creates a copy of entered notes, simulating a standard delay effect, but using velocity MIDI data.



ENABLE
ON OFF Activate/disable the delay engine.

TIME
1/4 1/8 1/12 1/16 1/24 1/32 1/48 1/64 Delay time is the amount of time between the original notes and the delay notes.

REPEAT
0 … 128 Number of delay notes.

FEEDBACK
-100% … 0% … 100%

Change the MIDI velocity of each delay note. The velocity of the delay notes will be gradually decreased (positive feedback) or increased (negative feedback). If the feedback is set to 0% velocity will not change.

DRY/WET
0% … 50% … 100%

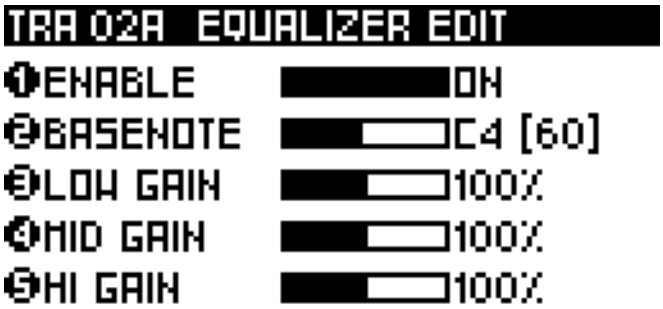
Change the MIDI velocity of all notes:

- if 0%, you will only hear the original notes,
- if 50%, you will hear both the original notes and the delay notes,
- if 100%, you will only hear the delay notes.

TIP Delay can work very differently depending on the synth you are using, as the velocity MIDI data can be interpreted in many ways.

EQUALIZER

MIDI equalizer changes the velocity of the original notes, simulating a standard EQ effect, but using the velocity MIDI data. It increases or decreases note velocities, according to the note pitch. The EQ slope is linear. You can, for example, increase the velocity of all lowest and highest notes, increase only medium notes, decrease the velocity of highest notes, ...



ENABLE
ON OFF Activate/disable the equalizer engine.

BASENOTE
C-1# … F9# Select the ”mid gain note” = the central note pitch of the equalizer.

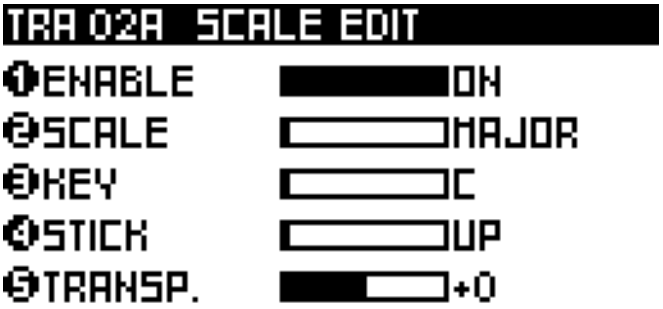
LOW GAIN
0% … 100% Select the gain of the lowest notes (C-1#).

MID GAIN
0% … 100% Select the gain of the central notes (according to the BASENOTE parameter).

HI GAIN
0% … 100% Select the gain of the highest notes (F9#).

SCALE

This effect quantizes all note pitches to a defined scale in real time, to refine your melody.



ENABLE
ON OFF Activate/disable the scale engine.

SCALE
MAJOR MINOR … AEOLIAN LOCRIAN CHROMATIC Select the scale.

KEY
C … B Select the scale root note.

STICK
UP DOWN If a non-scaled note is exactly between two scaled notes, select if the effect have choose the note below or above.

TRANSPOSE
-12 … +12 Transpose all scaled notes

NOTE TO CC

This effect converts a note parameter value (note pitch or note velocity) to a selected CC message (or to the MIDI ”pitch bend”, ”aftertouch” or ” program change”). For example, you can change a synth parameter (like the filter) according to the velocity of a note. It’s also very handy to fully control the Korg Volca Sample parameters (pitch, velocity, ...) with a keyboard.



ENABLE
ON OFF Activate/disable the Note 2 CC engine.

PARAM
NT ON VELOCITY NT ON/OFF Select the note parameter value to convert (pitch of the note ON, velocity of the note, pitch of the note ON and note OFF).

TO CC
CC0 ... CC119 PITCH PRESSURE PR. CHANGE Select the MIDI CC message to be created.

PLAY NOTE
OFF ON If OFF, the original entered note will be filtered. If ON, the original entered note will be played.

BPM

This effect enables you to create global tempo automation! Very useful for creating BPM changes between two tracks during your live set, automating small BPM variations, creating ”bouncing ball” effects in sync, ...

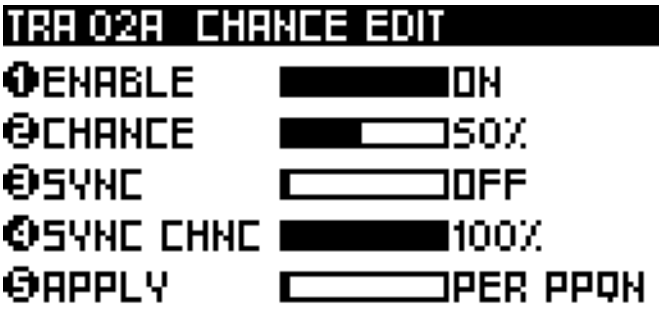


ENABLE
ON OFF Activate/disable the BPM engine.

BPM
10 ... 250 The new global BPM (substitutes tap BPM).

CHANCE

This effect plays or does not play a note based on probability. It’s a great way to add variations to drums or melodies.



ENABLE
ON OFF Activate/disable the Chance engine.

CHANCE
0% ... 100% VELOCITY If ”0%”, the note will never be played. If ”50%”, the note has a fifty-fifty chance to be played. If ”99%”, the note will almost always be played. If ”VELOCITY,” the note will have the same probability of being played as its velocity. Very handy for programming different per note probability.

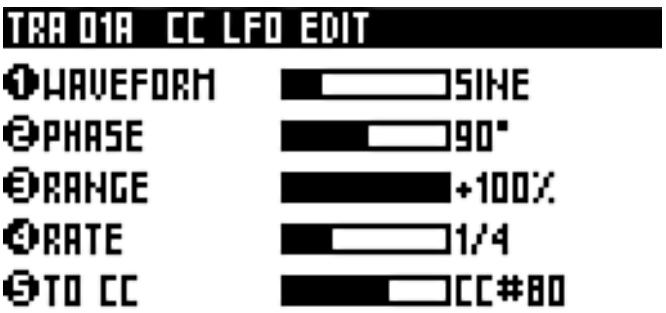
SYNC
OFF 1/4 1/8 1/16 Add a synced probability (”sync chance” parameter). If sync = ”1/4”, all beat notes will have a different probability of being played. If sync = ”1/16”, all sixteenth notes will have a different chance to be played...

SYNC CHANCE
0% ... 100% The probability of a synced note to be played. For example, if sync = ”1/4” and sync chance = ”100%”, all beat notes will be played.

APPLY
PER PPQN PER NOTES If ”PER PPQN” is selected, the probability affects a group of notes contained in the same PPQN (if a chord is played, all notes of the chord will be played or not). If ”PER NOTE” selected, the probability affects each note (if a chord is played, only some notes of the chord will be played).

LFO

Generate high resolution CC waveforms in a flash, based on wavetables!



WAVEFORM
OFF SINE TRIANGLE SQUARE RAMP S AND H
Set the LFO waveform. S AND H means ”sample and hold”, generating a random value at each synchronized step.

PHASE
0° ... 180° Set the phase of the waveform.

RANGE
-127 ... 0 ... +127 Set the amplitude of the waveform. If 0, no LFO will be generated. If +63, the LFO will be generated with the maximum range value (0 to 127). If -63, the LFO will be generated with the maximum range value, but the waveform will be inverted (127 to 0). If the value is upper 63, the LFO will ”saturate”.

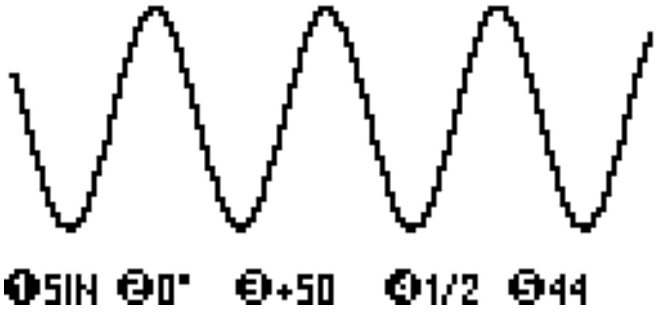
RATE
1/16 ... 64 Set the rate of the waveform (from 1/16 bar to 64 bars).

TO CC
CC0 ... CC119 PITCH PRESSURE PR. CHANGE
Set the CC message destination.

TIP The central value of the LFO is 63. To set an other central value (0 to 127), add a CC automation in step-mode CC.

TIP Press DISP to display the LFO in real-time:

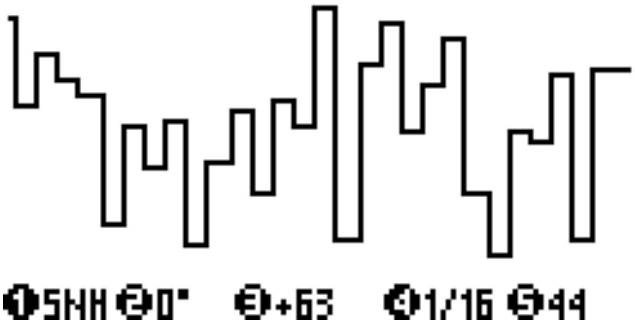
SINE



RAMP



S AND H



TIP It’s possible to chain multiple LFOs (with the same CC number, on the same track), in order to create original waveforms:

TRIANGLE + TRIANGLE



SINE + RAMP



7 Assign

Assign principles

The 5 encoders ●●●●●, the analog inputs, as well as the touchpad ▭ X+Y axis, are able to control CC messages and effect parameters in real-time.

Once they are assigned, you can perform with them in all Pyramid's modes and submodes.

To record CC messages automation or effect parameters, you must be in **LIVE** mode, with REC enabled.

Assignments are saved with the project and are independent of the current track and sequence. Selecting a new track or a new sequence will not unlink or change the assignment. That means that you can work on track TR05D and slide the touchpad to control a CC message or an effect parameter of TR01A, perfect for live performance. The controllers are always ready for use, very handy for simultaneous multi-track control.

We tried to make the controller assignment process as easy as possible. If you love to play the touchpad for creating automation, it's fast and simple to reassign the control to another CC message or effect parameter and record your performance.

TIP Once an encoder is assigned, press it to display its set value. In **LIVE** mode, the encoder value will be displayed on the 16 leds when rotated.

You can record automation on a track filled with notes, or on a blank track. This allows one to create tracks filled only with automation, and thus mute/unmute, and sequence CC messages and effect parameter automation.

Assign a CC message

Hold ASSIGN and …

- turn an encoder ●●●●●, or
- slide the touchpad ▭ X or Y axis, or
- plug a jack into the CV or the GATE input.

The display "ASSIGN ENCODER TO…" will appear on the screen. Select MIDI CC by rotating ◉ then press to confirm:



Now you have two options:

1 Assign the CC message to the MIDI channel and output of the selected track. The CC will be always sent to the same channel & output, whatever the current track.



2 Assign the CC message to "GLOBAL": the CC message will be sent on the channel of the current track. For example if you assign the CC7 (VOLUME) on the encoder 1, this CC will control the VOLUME of the current track instrument.



Now select the CC message number, from CC0 to CC119. Scroll the list and press ◉ to assign the CC message. Holding **2ND** and rotate ◉ allows fast scrolling.



At the end of the CC list, you can find the **PITCH BEND**, the **PRESSURE** (aftertouch) and the **PROGRAM CHANGE** MIDI messages:



You can record automation on the current track only if:

- the CC channel (e.g. CH14) is the same as the track channel
- the output of the CC is the same as the track

Note: as soon as you assign a CC control and move it to set the value, an automation message is created to store this value (you can display it or remove it in stepmode CC MESSAGES). This message will be sent at the start of the track, so your synthesizer will always have the right set value. You can disable this feature in SETTINGS > MISC > CC ASSIGN > AUTOREC OFF.

When an assigned encoder is moved or pressed, a popup is displayed, with the CC number (68), the CC value (111) and the CC MIDI channel (CH09A):



How to assign an effect parameter

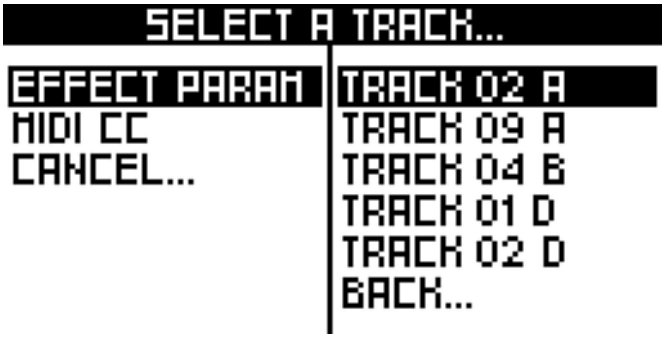
Hold ASSIGN and …

- turn an encoder ●●●●●, or
- slide the touchpad ▭ X or Y axis, or
- plug a jack into the CV or the GATE input.

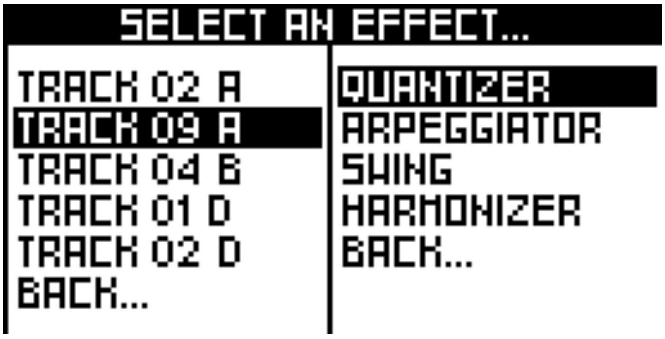
The display “assign control to…” must popup. Select and press **EFFECT PARAM** with ◉:



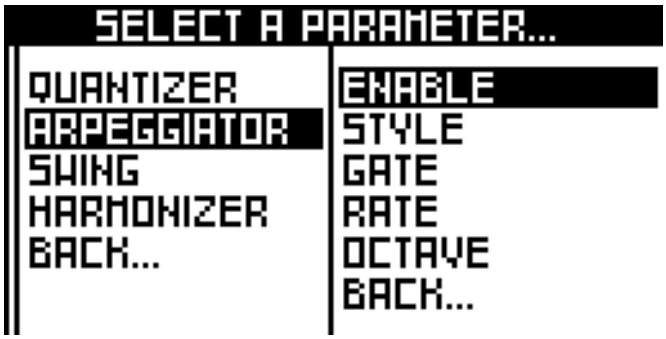
Using ◉, select the track containing the effect you want to assign:



Select the effect you want to assign with ◉:

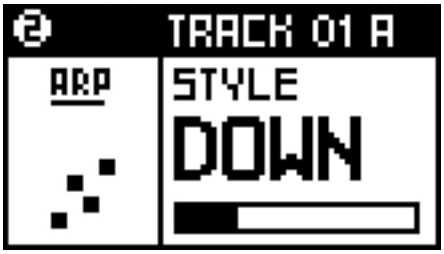


Using ◉, select the parameter you want to assign:



You can record the effect parameter automation on the current track only if the effect belongs to the current track.

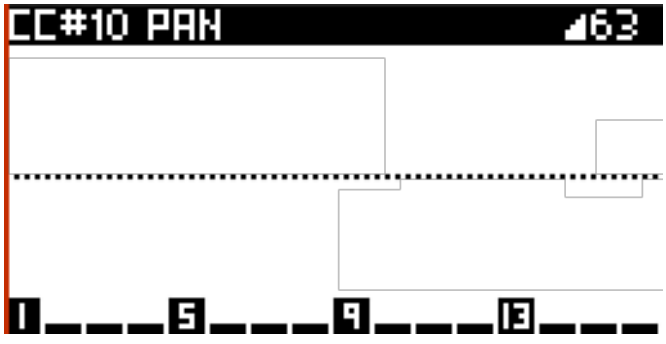
When an assigned encoder is moved or pressed, a popup is displayed displaying the effect (ARP), the effect parameter (STYLE), the effect value (DOWN), and the effect track (01A):

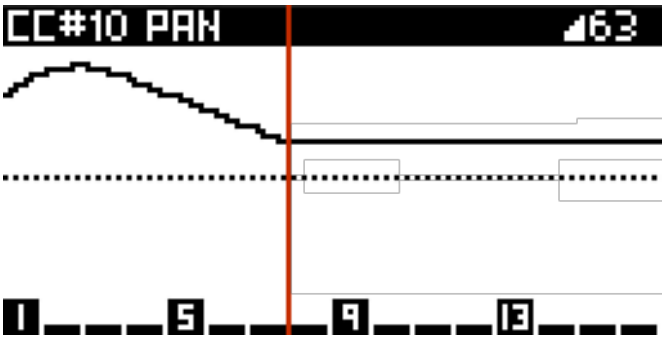


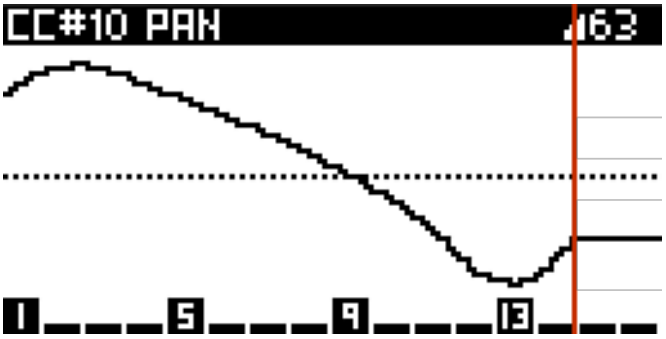
Automation recording and overdub

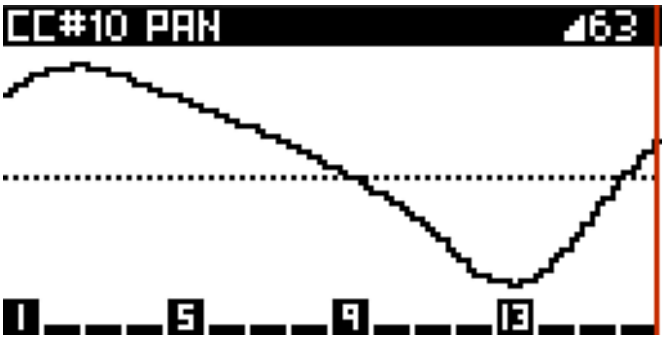
Unlike notes, automation is not recorded with overdub. That means that the player will erase existing automation step.

For example, if you activate rec O in **LIVE** mode and progressively change an assigned value (e.g. CC10) during the first loop, an automation is created:

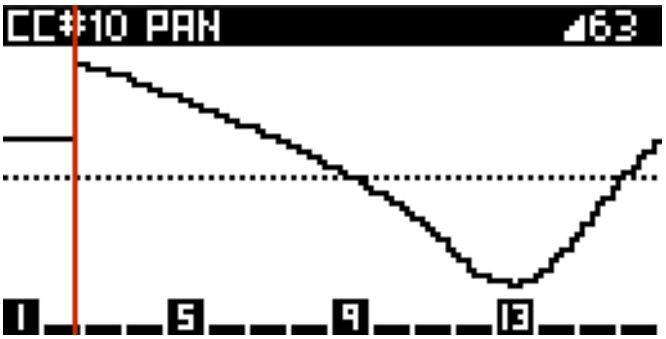


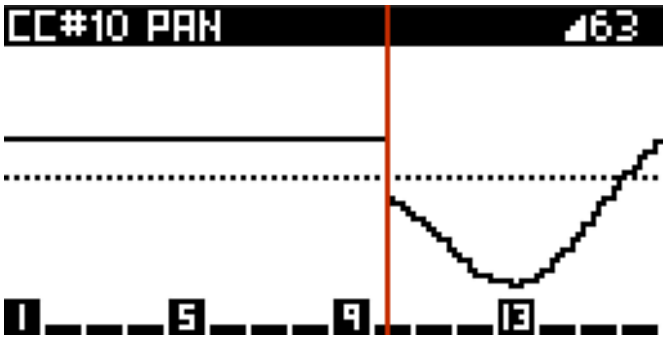


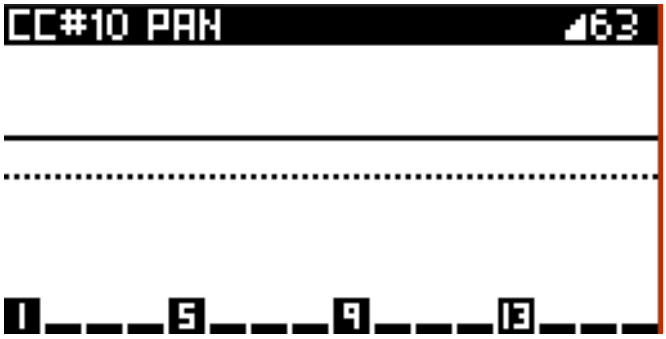




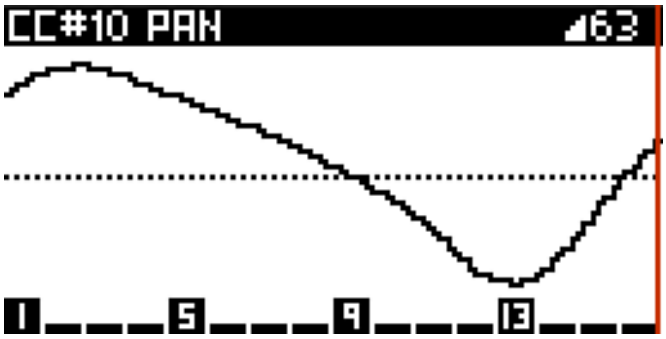
If you don't disable rec O during the second loop, and even if you don't change the assigned value, the automation will be erased step:



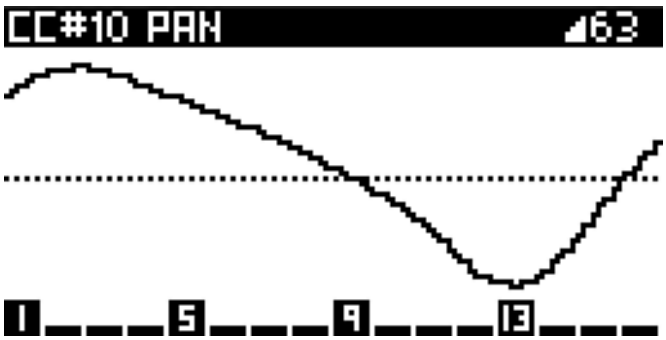




You can of course record another automation if rec is still enabled:



Disable rec to preserve automation:



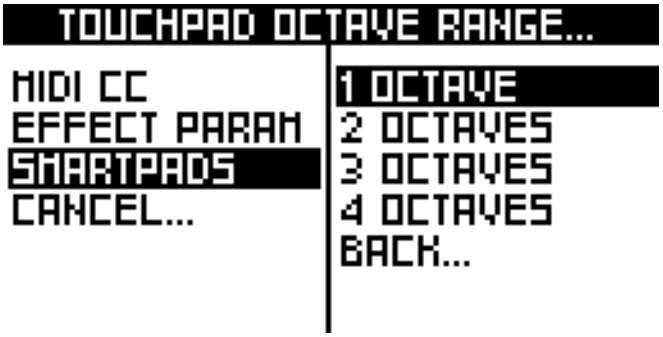
This operation applies to all CC messages, pitch bend, pressure, program change and effects parameters.

Assign touchpad to smartpads

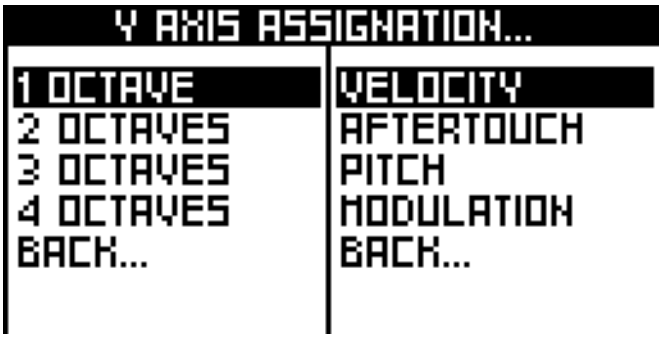
When assigning the touchpad, another option appears: SMARTPADS



Select the octave range of the touchpad X axis:



Assign the touchpad Y axis to a note parameter:



Now you can slide the touchpad X axis to:

- play with chords (if **LIVE** smartpads = CHORD)
- play with repeats (if the **LIVE** smartpads = REPEAT)
- play with scales (if the **LIVE** smartpads = SCALE)

For example, if **LIVE** smartpads = SCALE, X axis = 2 OCTAVES and Y axis = VELOCITY, slide the touchpad X to play notes (in the selected scale) and the touchpad Y to change note velocity.

You can play smartpads with the touchpad in every mode, and record your performance. Notes are always sent on the current track so you can use MIDI effects if you want.

Note about analog input voltage assignment

You can assign the two analog jack inputs (CV input and GATE input) to control in real-time CC messages and effect parameters. It's a great way to control Pyramid with your CV modules, or to create your own DIY analog controller.

The voltage (0V to 5V) will be converted to a CC MIDI value (0 to 127) or to an effect parameter value (for example the arpeggiator STYLE).

Hold ASSIGN and plug a mini jack on the input you want to assign (CV input or GATE input), the assign manager display will appear. Then select the CC message or the FX you want to assign. Moreover, the option "CV IN MODE" in SETTINGS will be autoset to CC MESSG, instead of CV/GATE.

8 Save/Load

Save/load principles

To save or load a project, make sure a SD card is inserted, hold **2ND** and press **save/load** to enter the menu:



A project is a whole set of 64 tracks (notes + effects racks + CC messages automation + effect parameters automation), 16 sequences, sequences chain, assignments and settings. Saving or loading a new project will stop playback.

Please do not remove the SD card while save/load menu is activated. To exit the save/load menu, press **2ND** + **save/load**.

To exit the Save/load menu, press **save/load** *or* **2ND**.

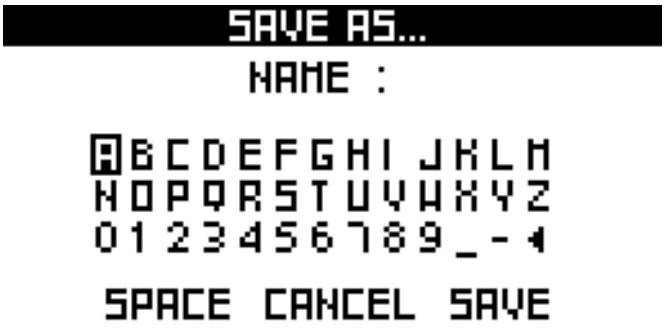
Save

Select **SAVE** with to save the project on the SD card with the current project name. If no project name was defined (NEW PROJECT), **SAVE** will redirect you to **SAVE AS**.

Saving an existing project creates a backup file on the SD card, for example "BACKUP_PROJECT1", to always keep an old version of your project. This backup is not displayed on the LOAD project list. If you want to load it, rename the file, for example "PYRA_PROJECT1".

Save As

Select **SAVE AS** with to save the project with a new name. Then edit the project name with this edit display:



Select "<" to delete the last character. Select "SAVE" to confirm.

TIP Hold **2ND** and rotate to move the cursor vertically in the edit display.

Load

Select **LOAD** with to load a new project on the SD card. This action will delete the current project: you must save your project before loading an other one.

Select the project to load in the dropdown list with :



Press to load selected project.

TIP Press 2ND + delete to remove the selected project permanently from the SD card (note: the backup project is not removed).

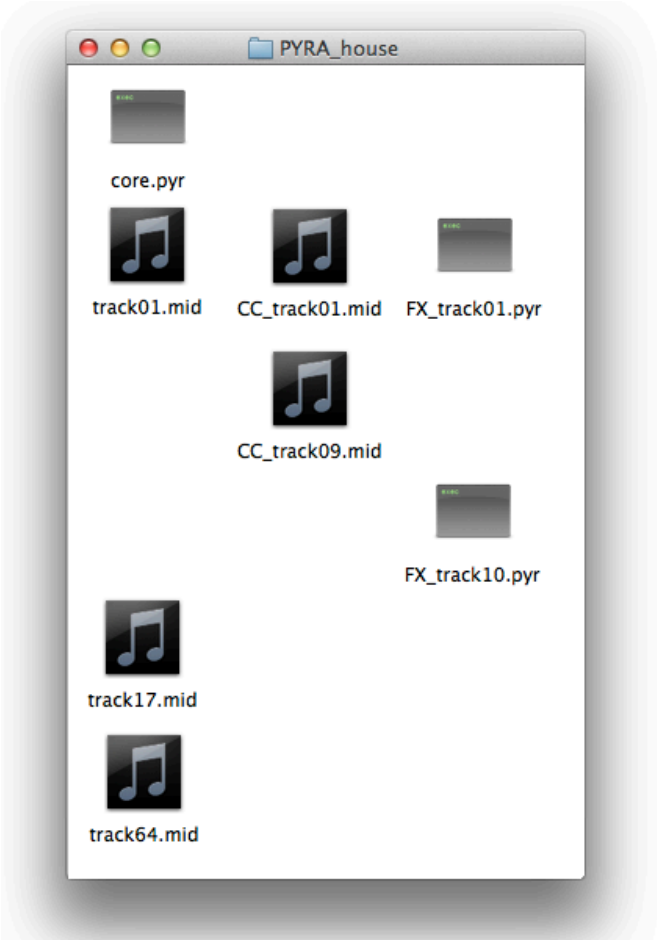
New

Select **NEW** to delete everything in the project and restart from scratch.

Project files

Project directories are always saved on the SD card with the prefix "PYRA_", in the SD root directory.

You can read the project files on your computer:



The **core.pyr** file contains the project settings, the sequences data, assignments and effects racks.

The other files can be deleted:

The track 01A contains MIDI notes (**track01.mid**), MIDI CC automation (**CC_track01.mid**) and effects parameters automation (**FX_track01.pyr**).

The track 09A contains only MIDI CC automation (**CC_track09.mid**).

The track 10A contains only effects parameters automation (**FX_track10.pyr**).

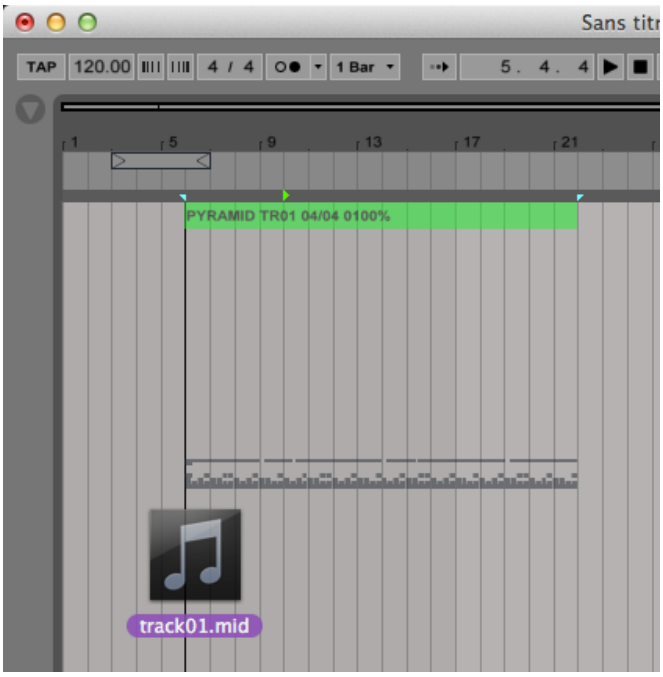
The track 01B contains only MIDI notes (**track17.mid**).

The track 16D contains only MIDI notes (**track64.mid**).

Import and export files

It's easy to import and export MIDI files (notes and CC automation) because Pyramid store these files as standard *.mid data (type 0 MIDI file: single track). All popular DAWs can play and edit MIDI files.

You can import or export from short patterns up to long linear tracks. For example, you can drag-and-drop a *.mid file from the SD card project directory to your favorite software sequencer (e.g. Ableton) and play and edit this pattern on the DAW:



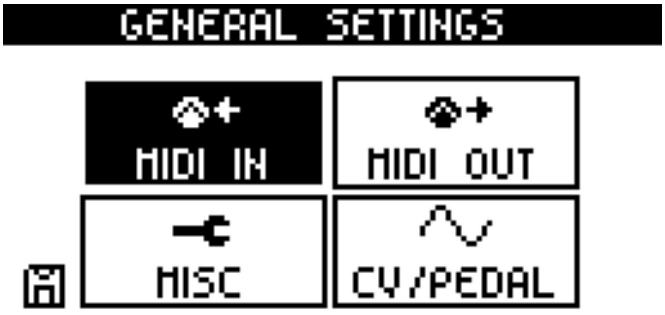
You can also create a MIDI track from scratch on your DAW and export it to an existing SD card project directory, with a valid name. If you want to export the *.mid file (filled with notes) to the Pyramid TR08A, name the file track08.mid. For TR01B, name the file track17.mid. For TR16D, name the file track64.mid...

Pyramid will play this .mid note pattern in a loop, depending on the track length.

9 Settings

Settings menu

Press **2ND** + FX to enter General Settings.



Then select the settings folder. You can also select the disk icon to:

- ● Save settings currently stored in flash memory. Settings options will be auto-loaded at Pyramid startup.
- ● Save current track channel mapping in flash memory. The 64 track channels will be auto-loaded at Pyramid startup.
- ● Restore default settings.
- ● Restore default track channels.

*To exit the settings menu, press FX or **2ND**.*

TIP You can also restore default settings at startup: hold the encoder **5** while powering ON Pyramid.

MIDI in

PYRAMIDI
CHANNEL 1 ... CHANNEL 16 OFF

Select the input channel to control Pyramid with PYRAMiDi messages (see the MIDI implementation chart). For example, if CH13 is selected, you can send channel 13 MIDI CC messages (with an external controller) to Pyramid, to mute/unmute the 64 tracks on the fly, select a track, activate REC, launch a sequence…

ASSIGN NOTE TO
KEYPAD SMARTPADS SMARTPADS ONLY WHITE OFF

Specifies if received notes are performed as notes, smartpads (e.g. CHORDS) or ignored. If SMARTPADS ONLY WHITE is selected, only the white keys will trig the smartpads.

OMNI MODE
MULTITRACK ON MULTITRACK OFF

MULTITRACK OFF will play notes and CC on the current track, regardless of the controller channel. MULTITRACK ON will play CH01 notes and CC on TR01A, CH02 notes and CC on TR02A, …CH16 notes and CC on TR16A.

IGNORE SYNC
OFF ON

Enables or disables BPM auto-sync, if your MIDI IN controller is sending a timing clock.

IGNORE CC MESSAGES
OFF ON

Filters out all CC messages from your MIDI IN controller.

IGNORE START STOP
OFF ON

Filters out all START, STOP and CONTINUE messages from your MIDI IN controller.

IGNORE PITCH
OFF ON

Filters out all PITCH BEND messages from your MIDI IN controller.

IGNORE AFTERTOUCH
OFF ON

Filters out all AFTERTOUCH (channel pressure) messages from your MIDI IN controller.

IGNORE PR CHG
OFF ON

Filters all PROGRAM CHANGE messages of your MIDI IN controller.

TRANSMIT SYSEX
NO MIDI A MIDI B MIDI AB

If OFF, received sysex messages are ignored. If Midi A (or Midi B, or Midi A+B), received sysex messages transmitted to MidiA (or Midi B, or Midi A+B).

ANTI ECHO
OFF ON

If ON, received notes (midi in) are not transmitted to midi out, but they still can be recorded. Handy if your synth (connected to Pyramid via midi in and midi out) does not include the setting "Local Control = Off/On"

MIDI out

MIDI A MODE
MIDI OUT MIDI THRU MIDI OUT + THRU MIDI OFF TURBO MIDI X2 TURBO MIDI X4 TURBO MIDI X5 TURBO MIDI X6.7

Configures Pyramid MIDI out A as a MIDI out (default), as a MIDI thru (all messages received on the MIDI input will be sent directly on the MIDI out A), as a MIDI out + thru (all messages received on the MIDI input will be sent directly on the MIDI out A, together with Pyramid MIDI messages).

It's possible to speed up the midi A communication up to 6,7 times and avoid latency problem, when sequencing an Elektron machine (Analog Four, Analog Keys, Analog Rytm, Octatrack), by using the TURBO MIDI protocol.

SYNC MIDI A
OFF SEND

Sends BPM MIDI clock to MIDI out A.

START/STOP MIDI A
OFF SEND

Sends START, STOP and CONTINUE messages to MIDI out A.

MIDI B MODE
MIDI OUT MIDI THRU MIDI OUT + THRU MIDI OFF

Configures Pyramid MIDI out B as a MIDI out (default), as a MIDI thru (all messages received on the MIDI input will be sent directly on the MIDI out B), as a MIDI out + thru (all messages received on the MIDI input will be sent directly on the MIDI out B, together with Pyramid MIDI messages).

SYNC MIDI B
OFF SEND

Sends BPM MIDI clock to MIDI out B.

START/STOP MIDI B
OFF SEND

Sends START, STOP and CONTINUE messages on MIDI out B.

SYNC USB
OFF SEND

Sends BPM MIDI clock to MIDI out USB.

START/STOP USB
OFF SEND

Sends START, STOP and CONTINUE messages to MIDI USB.

SYNC STOP
NO CLOCK SEND CLOCK

If NO CLOCK selected, the sync (timing clock) will never be sent when the player is stopped or paused.

CV/pedal

CV IN MODE
OFF CV/GATE CC MESSAGES

Selects if the CV inputs control notes of the current track (CV/GATE) or CC messages (see Note about analog input voltage assignation).

CV IN 2V NOTE
C1# ... F4#

Selects the CV INPUT TO MIDI root note. By default, a CV voltage of 2V plays a C2 MIDI note on the current track.

CV IN TYPE
VOLT/OCTAVE HERTZ/VOLT

Selects if your analog controller generates CV V/oct or CV Hz/V.

CV OUT 2V NOTE
C1# ... F4#

Selects the MIDI TO CV OUTPUT root note. By default, a C2 MIDI note plays a CV voltage of 2V.

CV OUT TYPE
VOLT/OCTAVE HERTZ/VOLT 1.2 VOLT/OCTAVE

Selects if your analog synthesizer is controlled by CV V/oct or CV Hz/V.

GATE POLARITY
ACTIVE 5V ACTIVE 0V

Selects the active polarity gate of your analog synthesizer.

ASSIGN ENV OUT TO
VELOCITY PITCH AFTERTOUCH MODULATION DIN SYNC METRONOME

Selects if the CV ENV outputs the note velocity, the pitch, the aftertouch (channel pressure) or the modulation of the CV track. You can also assign the CV ENV output to the din sync clock, to easily sync your modular system with a mini jack.

DIN SYNC
OFF SYNC1 SYNC2 SYNC4 SYNC8 SYNC12 SYNC16 SYNC24 SYNC48 SYNC96

Selects the DIN SYNC clock speed.

SEND DIN SYNC
PLAY ONLY ALWAYS

The DIN SYNC clock can be sent only when the player is playing, or always (when player is stopped or played).

PEDAL HOT
REC HARD REC PLAY/PAUSE PLAY/STOP PREVIOUS TRACK NEXT TRACK PREVIOUS SEQ NEXT SEQ TAP TEMPO

Sets the action triggered by the footswitch pedal.

PEDAL COLD
REC HARD REC PLAY/PAUSE PLAY/STOP PREVIOUS TRACK NEXT TRACK PREVIOUS SEQ NEXT SEQ TAP TEMPO

Sets the second action that will be triggered by the footswitch pedal (if double pedal used).

ANALOG IN
(display only)

Display the 4 input voltages (0 to 5V).

ANALOG OUT
(display only)

Display the 3 output voltages (0 to 5V).

Misc

LIVE LOOPER
OFF BEAT 1 BAR 2 BAR ... 8 BAR

Enable LIVE looper recording and select looper time quantization (see Record your performance).

SIGNATURE
POLYRHYTHMS POLYMETERS

- If POLYRHYTHMIC is selected, Pyramid apply true Polyrhythms when different time signatures are used. If you select a 3:4 time signature you will have bars of 3 quarter notes, but the bar will have the same duration as a 3/4 bar.

- If POLYMETRIC is selected, all quarter notes remain the same. If you select a 3/4 time signature you will have bars of 3 quarter notes, and each quarter note will have the same length than the 4/4 ones. The polymetric mode is easier to understand than the Polyrhythmic one because it doesn't mix several speeds.

DOUBLE TAP MODE
VELOCITY GLIDE

In NOTE and CHORD stepmodes, double tap a pad to enter velocity accents or gliding notes. Glides only works with compatible synths: if two notes follow, the first one must be double tapped to create a glide (= an overlapping) between these two notes.

REC COUNTDOWN
OFF 1 BAR 2 BAR 3 BAR 4 BAR

Activates a countdown before a recording in live mode (When the player is stopped and you press REC then PLAY). You can select the duration of the countdown. The countdown will be sent on the metronome output channel and note.

METRONOME CH
CURRENT TRACK MIDI CH01A … USB CH16

Select the metronome output channel (made with midi notes). If the metronome is activated (2ND+LIVE), the metronome will be send on this selected track, and will follow the beat.

METRONOME NOTE
C-1 G9

Select the metronome output note. If the metronome is activated (2ND + LIVE), the metronome will click on the selected note.

STEP LEARN
OFF LEARN NOTES

If OFF, step note learn with an external keyboard is disable (see Note Stepmode).

CC ASSIGN
AUTOREC OFF AUTOREC ON

With autorec on, as soon as you assign a CC control and move it to set the value, an automation message is created to store this value (you can display it or remove it in stepmode CC MESSAGES). This message will be sent at the start of the track, so your synthesizer will always have the right set value.

PLAY PAD
PLAY/PAUSE PLAY/RESTART PLAY/MUTE

If "play/pause" selected, a press on the PLAY pad will alternately play and pause the playback. If "play/restart" selected, a press on the PLAY pad will always restart the current sequence playback from the beginning. If "mute" selected, Pyramid continue to play but send no midi data if the player is paused.

MUTE DELAY
SAME AS SEQ PERFORM INSTANT

Select if tracks mute/unmute are in sync with SEQ PERFORM or always instant (see Mute/unmute tracks on the fly).

DEFAULT TRACK
MODE FREE MODE RELATCH MODE TRIG

Set the default run mode of new tracks.

DEFAULT ZOOM
25% 50% 100% 200% 400%

Define the default zoom of all tracks at startup.

DEFAULT LENGTH
1 BAR … 64 BAR

Define the default length of all tracks at startup.

DEFAULT TS L
1/ … 24/

Define the default time signature top number of all tracks at startup.

DEFAULT TS R
/1 … /16

Define the default time signature bottom number of all tracks at startup.

DEFAULT PERFORM
INST BEAT 1 BAR … 8 BAR

Set the default run mode for new tracks.

POPUP ASSIGN
ON CLICK ON ROTATE AND CLICK

Displays a popup with encoder assignment information on click or on rotation.

TOUCHPAD
ON OFF

Enables or disables the touchpad.

TOUCHPAD RELATCH
NO RELATCH 0 … 127

If no relatch is selected, the touchpad (assigned X or Y position) will keep it's last set value. If a value is selected (for example 0), the touchpad will send back this value when the touchpad is released.

ENABLE USB
ON OFF

Enables or disables the USB output.

AUTOLOAD
OFF LAST SAVED PROJECT LAST LOADED PROJECT

After startup, Pyramid can load an empty project, load the last saved project or load the last loaded project.

STOP/PAUSE LED

OFF ON

When Pyramid is stopped or paused, the led displaying the player position on the 16 pads will blink.

10 Shortcuts

In any mode

Hold **TRACK** to activate the following shortcuts:

- **solo**
- **MIDI channel**
- **zoom**
- **length**
- **time signature**

To change BPM in decimal increments, turn ● while pressing it.

Hold **2ND** + BPM and turn the data knob ● to change the tempo, which will apply only when you release **2ND**.

Hold **2ND** and press < or > to double or divide the BPM in a flash.

Once an encoder is assigned, press it to display its set value.

In FX manager, Assign, DISP or Settings, press BPM to exit and return to the current mode.

Hold **2ND** and press **LIVE** to activate the metronome.

Live mode

Hold **LIVE** and rotate ● to change the function of the 8 smartpads.

Hold **STEP** + **velocity** and rotate ● to change keypad and smartpad velocity. You can also press ASSIGN to enable the ENCODER STEP EDIT feature, in order to set the **velocity** using the touchpad X axis.

Hold **2ND** and press rec ○ to activate a hard recording.

When the player is stopped □ and you press rec ○, Pyramid waits for play ▶II to be pressed. Once you press ▶II a countdown begins. After a specified number of countdown bars, recording starts and continues until the end of the track loop at which point recording stops and the loop continues to play as normal.

When smartpads = CHORD, **2ND** + rotating ● will jump to the very next major/minor tonality. Add complexity by pressing and rotating ●.

When smartpads = SCALE, **2ND** + rotating ● will select the root note of the scale.

2ND + play ▶II activate the HOLD/RELATCH mode.

Press **2ND** + delete to delete only notes + CC automation + FX automation of the current track.

Step mode

Hold **STEP** and turn ● to change Stepmode.

Hold **2ND** and rotate ● to scroll the note list or the CC list faster.

Preview the selected note by pressing ●. Pressing < or > while holding ● allows you to jump octaves for a quicker note navigation. You can also press a key ▪▪▪▪▪▪▪▪ while holding ● to directly select the note number.

In stepmode NOTE, you can display the parameters of a step. Hold **velocity** and press a filled step to display (and even edit) the step velocity. Same functionality is true for **length** and **width**. You can also display and edit several steps: hold **velocity** (or **length** or **width**) and press the first step together with the last step of the row ▪▪▪▫▫▪▪▪.

Double tap a step pad ▪▫▪▪▪▪▪▪ to add a low velocity note in order to create accents quickly.

Hold **velocity** and slide the touchpad from left to right to quickly set the velocity, the CC value or the FX value.

Hold < or > to quickly navigate pages.

Press **2ND** and hold < or > to quickly rotate the track (shift all notes one step left or right).

Press rec ○ to switch to MONO EDITING, to have a global view of which of the 16 steps are filled with notes. Pressing a filled step will remove all notes in this step, whatever the selected note is.

In stepmode NOTE and CHORD, hold a step ▪▫▪▪▪▪▪▪ (or a row of steps) and rotate ● to transpose it. Hold rec ○ and rotate ● to transpose the track notes.

In stepmode CC MESSAGES and EFFECTS, hold a step ▪▪▫▪▪▪▪▪ (or a row of steps) and rotate ● to increase/decrease its value. Hold rec ○ and rotate ● to transpose the whole automation.

In stepmode CC MESSAGES and EFFECTS, hold rec ○ and slide the touchpad to draw an automation.

Press ASSIGN to enable the ENCODER STEP EDIT feature, in order to assign directly the 5 encoders and the touchpad to shortcuts.

In stepmode NOTE and CC MESSAGES, pres 2ND + **STEP** to activate the filter, in order to scroll only through programmed notes or CC messages. Press 2ND + **STEP** again to quit the filter.

Track mode

Hold **2ND** and select a track ▪▫▪▪▪▪▪▪ to mute/unmute it instantly.

Hold **MIDI channel** and press + rotate ● to quickly select the MIDI output of the track.

Hold **length** and press + rotate to set the bar level with step precision.

Hold **time signature** and rotate to change the time signature's upper number on the current track.

Pess rec in order to disable saving sequence mute states (rec led will be OFF). If you mute or unmute a track, the sequence will not save mute states.

In DISP view, rotate to scroll the track banks (TR01A > TR07A, TR08A > TR16A, TR01B > TR07B, …)

FX manager mode

With the effect manager activated, you can still play or add notes in **LIVE** and **STEP** mode, mute/unmute tracks in **TRACK** mode, and even launch sequences in **SEQ** mode.

Rotating while pressing **2ND** allows you change the position of the selected effect.

In **LIVE** mode, when you are editing an effect with the 5 encoders ●●●●●, press rec to record directly the effect parameters automation.

In the main EFFECT MANAGER window:

- Press encoder 1 to enter the parameter screen of the effect in slot 1.
- Press encoder 2 to enter the parameter screen of the effect in slot 2.
- Press encoder 3 to enter the parameter screen of the effect in slot 3.
- Press encoder 4 to enter the parameter screen of the effect in slot 4.
- Press encoder 2ND + 1 to turn the effect in slot 1 on or off.
- Press encoder 2ND + 2 to turn the effect in slot 2 on or off.
- Press encoder 2ND + 3 to turn the effect in slot 3 on or off.
- Press encoder 2ND + 4 to turn the effect in slot 4 on or off.

Assign mode

Hold **2ND** and rotate to scroll through the CC list faster.

Save/load mode

Hold **2ND** and rotate to move the cursor vertically in the SAVE AS…edit display.

In the LOAD project list, press **2ND** + delete to remove a project definitively from the SD card (note: the backup project is not removed).