



## Foreword

While creating Seq we were trying to keep things as simple as possible for its users. Most functions are available instantly from the main front panel. There are no hidden menus and all functions fit on one screen. All changes are saved automatically. Our goal was to allow you to get lost in it without worrying where any functions were. You can use it with your eyes closed or if you're drunk you can still find your way around. Now, let us introduce you to your new girlfriend, just don't tell your girlfriend if you have one.

## First date

Open the box, unpack Seq, use provided power adapter or USB cable to turn it on. Sit down, relax and take a deep breath, smile. Start by simply connecting the beast to your instruments, computers, modulars, etc using one of its outputs. This probably isn't the first sequencer you've been using, so now you can start fooling around with it in no time. But if for any reason you're not feeling that confident, let us give you some help on what you'll be laying your hands on till the end of your days.

When looking at Seq you'll find eight function keys, six clickable knobs and eight track buttons on the left side front panel, as well as a lot of white small square step buttons on the right. Let's take a closer look at all these guys.

## The Buttons that wish to be touched

There are eight track buttons that can be turned on and off or combined with main function keys, which are the following ones:

**Pattern** - while holding it down, choose and press any of 256 **step** buttons on the sequencer section to load the desired pattern.

**Duplicate** - you can use it in two different ways. While holding it down choose a source from tracks 1 to 8 and copy it to another by selecting the destination track. You can also copy patterns by holding Duplicate + Pattern buttons, choosing the source pattern and then destination pattern.

**Quantize** - just hold it down, choose the track which you are willing to quantize and voila it's done. This will quantize notes recorded from an external controller to a chosen track. Also, will override nudged steps and tracks on a snap to grid basis.

**Random** - our favourite button and hopefully yours as well. Hold it down and then select tracks you want to effect. The randomization will follow in chosen musical scale and root note. This will also apply changes to rolls, velocity and modulation (read more below).

**On/Off** - you probably know that already, but this one pressed down will turn on and off any chosen track.

**Clear** - pressed together with track button will erase all notes contained. Used with Pattern button lets you clear chosen patterns.

**Stop, Play & Rec** - stop button stops the playback, play button starts playback. Holding down stop + play (in this exact combination) will cause recording after 4 bar count in.

## Time to meet our Knobs

Seq knobs are convenient clickable encoders. Their step range is based on a sophisticated algorithm which we think is improving workflow a lot. By pushing them down you're scrolling thru options displayed on the screen, and then by rotating you'll change parameter values. Tempo knob has a more likely global impact and is corresponding to each **pattern** settings. All other knobs are responsible for both **track** and **step** parameters, and are changing their options while one of them is pressed. Interesting? Read more below.

### Tempo knob

- **Tempo** adjusts the pace of each pattern (from 10 to 400 BPM).
- **Swing** adds that groove feeling (from 25 to 75%).
- **Clock** lets you choose internal or external USB/MIDI clock. Also, enables Tempo Lock function where all patterns has same tempo.
- **Pattern** points on which pattern you are currently working on.

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## Note knob

### With **track**:

- Root Note** sets Track and Scale root note (in between ten octaves).
- Scale** where you can choose from 39 predefined musical scales (see table in appendix). Notice that using a scale on an existing sequence will quantize all of its notes and notes in chords to that particular musical scale.
- Channel** which sets MIDI communication port from 1 to 16.
- MIDI Out** for setting desired track output port with or without MIDI Clock output. With following options: Out1; Out2; USB; Out1+Clk; Out2+Clk; USB+Clk.

### With **step**:

- Note** simply sets the desired note for the single step you're currently editing.
- Chord** gives access to a list of 20 predefined chords, which are corresponding to step notes and are disconnected from music scale assigned to track (see table in appendix).
- Transpose** changes a pitch of a step by a constant interval.
- Link to** allows chaining to next pattern or between any available patterns. Link restarts the sequence and plays it from the first step. Link is also disabling **note/chord** and vice versa.

## Velocity knob

### With **track**:

- Velocity** sets the percentage of distinction for all steps on the selected track.
- Random Vel** determines if Random button affects velocity changes for chosen track.
- CC number** sets desired CC parameter for modulation on desired track.
- Random Mod** rules if Random button is influencing CC parameter modulation on pointed track.

### With **step**:

- Velocity** sets the percentage of distinction for single selected step.
- Modulation** is responsible for turning on and setting the intensity of CC parameter modulation.

## Move knob

### With **track**:

- Move** allows you to swipe a whole sequence of notes existing on a track at once.
- Nudge** is responsible for gentle micro-moves of all notes contained on the selected track. Nudge disables **roll** and vice versa.
- Humanize** lets you choose if Random button is adding Nudge micro-moves for notes in randomized track sequence.

### With **step**:

- Move** allows you to swipe a single chosen step in your sequence.
- Nudge** will gently move the step you're currently editing. The internal per step nudge resolution is 48 PPQN.

## Length knob

### With **track**:

- Length** sets track length from 1 to 32 steps, hold track button, turn the knob and observe the magic (or push down the knob and choose the track length on the grid, which might be faster).
- Play mode** is a modest option, but can put some more life and fun into your already funky sequences. Choose from Forward, Backward, Pingpong and Random playback modes.
- Gate mode** sets gate time for all notes in the sequence.

### With **step**:

- Length** edits time span for single edited step (displayed on a grid as step tail).

## Roll knob

### With **track**:

- Roll** applied to a track adds steps with an assignable interval between them. Instant techno generator. Roll disables **nudge** and vice versa.

### With **step**:

- Roll** sets divider on 1/2; 1/3; 1/4; 1/6; 1/8; 1/12; 1/16; like a rolling stone, baby.
- Curve** chooses velocity roll type from: Flat; Increasing; Decreasing; Inc-Dec; Dec-Dec;

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## Small talk with external gear

Seq is capable of receiving and recording notes (including note length and velocity) from various external controllers. To record incoming communicates connect your external gear via MIDI or USB port, highlight one or more tracks you want to record on, hold down stop and play buttons together to start recording, then proceed with playing on your external gear. Please take notice that by default Seq records incoming notes starting from the top rows of tracks. Also, note that recording, for example, a three-note chord will consume three tracks. We know it's a lot, that's why we've decided to implement predefined chords which can be placed on one track.

There's one more trick you can do. Hold one or more track buttons and send MIDI note from external gear to change the root key of an existing sequence of notes. You can do this „on the fly”, there's no need of stopping playback.

## Miscellaneous

Footswitch: single press starts and stops playback, double press starts recording.

Firmware updates are available on our website, right next to video tutorials which might be worth watching as they explain things written above on rather interesting and good sounding examples.

When you'll press down the Note knob together with any of the track/step buttons, you'll hear what sound/note/chord it holds.

## Technical specification

Dimensions: Width 5.7" (14,5cm), Height 1.7" (4.3cm), Length 23.6" (60cm), Weight 4.6 lbs (2.1kg).

In/Out: MIDI In to either sync clock or input MIDI notes; MIDI thru; two independent MIDI Outs; USB for bidirectional MIDI communication.

Power: 100-240VAC, 50/60Hz with interchangeable heads for North/Central America & Japan, China, Europe, UK, Australia & New Zealand.

## Endnote

Thank you for purchasing our Seq. We've put a lot of attention, time, blood, sweat and tears to make it, please remember about that. Also, thank you for taking your precious time to read this boring manual, we're pretty sure that you knew all this before you've even started reading it. One more thing: burn instructions after use, obviously.

Sincerely yours  
Polyend Team

## Appendix

music scales chart	
name	shortcut
Chromatic	No scale
Chromatic	Chromatic
Minor	Minor
Major	Major
Dorian	Dorian
Lydian	Lyd Maj
Lydian Minor	Lyd Min
Locrian	Locrian
Phrygian	Phrygian
Phrygian Dominant	PhrygDom
Mixlydian	Mixlydian
Melodic Minor	Melo Min
Harmonic Minor	Harm Min
BeBop Major	BeBopMaj
BeBop Dorian	BeBopDor
BeBop Mixlydian	BeBop Mix
Blues Minor	Blues Min
Blues Major	Blues Maj
Pentatonic Minor	Penta Min
Pentatonic Major	Penta Maj
Hungarian Minor	Hung Min
Ukrainian	Ukrainian
Marva	Marva
Todi	Todi
Whole Tone	Wholetone
Diminished	Dim
Super Locrian	SuperLocr
Hirajoshi	Hirajoshi
In Sen	In Sen
Yo	Yo
Iwato	Iwato
Whole Half	WholeHalf
Kumoi	Kumoi
Overtone	Overtone
Double Harmonic	DoubHarm
Indian	Indian
Gipsy	Gipsy
Neapolitan	NeapoMaj
Neapolitan Minor	NeapoMin
Enigmatic	Enigmatic

chords chart	
name	shortcut
Dim Triad	DimTriad
Dim7	Dim7
HalfDim	HalfDim
Sus2	Sus2
Sus2 #5	Sus2 #5
Sus2 add6	Sus2add6
Sus2 b7	Sus2 b7
Sus2 Maj7	Sus2Maj7
Minor	Min
Minor b6	Min b6
Minor 6	Min6
Minor 7	Min7
Minor Maj7	MinMaj7
Major	Maj
Major 6	Maj6
Dom 7	Dom7
Major 7	Maj7
Sus 4	Sus4
Sus 4 b7	Sus4 b7
Sus 4 Maj7	Sus4Maj7
Sus #4	Sus #4
Open5 (no3)	Open5
Open4	Open4
Stack5	Stack5
Stack4	Stack4
Aug Triad	AugTriad
Aug add 6	Aug add6
Aug b7	Aug b7
Aug Maj7	AugMaj7