



SUBTRX SEQ 01

PERCUSSION SEQUENCER

USER MANUAL

Version 1.3 / Max for Live MIDI Effect

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QUICK START

Drag the device onto a MIDI track, place an instrument after it, start Live's transport, and leave RUN set to ON.

1. Overview

SUBTRX SEQ 01 is a compact eight-step MIDI sequencer for Ableton Live. It was designed especially for percussive patterns, Drum Racks, short synth sequences, and experimental rhythms.

Each step has individual settings for pitch, pulses, trigger behavior, velocity, probability, ratchets, and timing offset. Every layer can be edited, randomized, or partially mutated independently.

The device generates MIDI only. To hear sound, place an instrument, Drum Rack, or external MIDI destination after it on the same MIDI track.

2. System Requirements

- Ableton Live with Max for Live
- Tested with Ableton Live 12 Suite and Max 9.1.5 on macOS
- A MIDI track containing an instrument or Drum Rack

The included **.amxd** file contains the interface, SUBTRX logo, and program code. No additional installation files are required for normal use.

3. Installation

1. Save **SUBTRX SEQ 01 v1.3.amxd** in a permanent location, preferably in your Ableton User Library.
2. Open Ableton Live.
3. Drag the device onto a MIDI track.
4. Place it before the instrument or Drum Rack you want to control.
5. Start Ableton Live's transport.

You can then save the device as an Ableton preset like any other Max for Live device.

4. Neutral Default State

A newly inserted device starts with a neutral sequence:

Setting	Default
Steps	8
Rate	1/16
Note	MIDI 36
Pulses	1
Gate	TRIG
Velocity	100
Chance	100%

Setting	Default
Ratchet	1x
Delay	0%
Swing	0%
Tune	0 semitones
Direction	Forward

Each step initially plays exactly one note. You can build your pattern from this neutral starting point.

When you reopen a saved Live Set, its own pattern and design settings are restored. Opening the device interface alone does not reset your pattern.

5. The Eight Layers

NOTE

Sets the MIDI note for each step. Drag vertically inside a step field to change its value. The full manual range is MIDI 0 to 127.

With a Drum Rack, the note usually selects a different pad. With a melodic instrument, it changes the pitch.

PULSES

Sets how many times a step is divided internally. A value of 1 plays the step once. Higher values create several pulses within the step.

SCALE

In SUBTRX SEQ 01, SCALE selects a pitch register rather than a musical major or minor scale:

- LOW: MIDI 24-47
- MID: MIDI 48-71
- HIGH: MIDI 72-95

When the register changes, unlocked notes move by octaves. Locked steps remain unchanged. NOTE Randomize and NOTE Mutate then use the selected register. You can still enter manual values outside this range.

GATE

Controls how a step is triggered:

- REST: The step generates no note.
- TRIG: A note plays at the beginning of the step.
- REPEAT: The note follows the pulses and may play several times.
- HOLD: Creates a longer note across the step's pulses.

Click a step to cycle through the gate modes.

VELOCITY

Sets the note velocity from 1 to 127. With Drum Racks and velocity-sensitive instruments, this may affect volume, tone, or both.

CHANCE

Sets the probability that a step will play. At 100%, the step always plays. Lower values create controlled variation.

The random decision is used for the prepared sequence. Changing the NOTE display or color theme does not reroll the pattern.

RATCHET

Divides a triggered note into fast repetitions. Values from 1x to 4x are available. Ratchets work especially well for hi-hats, percussion, rolls, and short glitch effects.

DELAY

Moves a step later within its timing grid. The value is shown as a percentage of the current step interval. DELAY is a MIDI timing offset, not an audio delay effect.

6. Editing and Locking Steps

- Drag up or down inside a step field to change its value.
- Hold Shift while dragging for finer adjustment.
- Double-click to restore the selected layer's default value.
- Click FREE/LOCK at the top of a step to lock or unlock it.

A locked step is protected from Randomize, Mutate, and SCALE register changes.

7. Global Settings

RATE

Sets the basic rhythmic grid. Click it to cycle through the available note values.

LENGTH

Sets how many of the eight steps belong to the active pattern. Steps outside the selected length remain stored and can be activated again later.

SWING

Moves every second pulse later to create a less rigid groove. The neutral default is 0%.

DIRECTION

- FORWARD: Steps run from left to right.
- REVERSE: Steps run backwards.
- BOUNCE: The direction alternates forwards and backwards.
- RANDOM: Step order is determined randomly.

TUNE

Transposes all output notes together in semitones. Click to increase the value; hold Shift while clicking to decrease it.

MUTATE

Sets the probability that each unlocked step will change when you press MUTATE. At 25%, every eligible step has a 25% chance of being changed.

RUN

Enables or disables the sequencer's MIDI output. Turning it off also ends any held notes.

8. Randomize, Mutate, and Undo

RANDOMIZE

RANDOMIZE generates new values for every unlocked step in the currently selected layer.

For example, when NOTE is selected, only the notes change. Velocity, Chance, Ratchet, and all other layers remain unchanged.

MUTATE

MUTATE changes only some of the unlocked steps. The global MUTATE percentage controls approximately how many steps may change.

Use MUTATE to evolve an existing pattern while keeping its overall character.

UNDO

UNDO restores the state before the most recent change. This also applies to Randomize, Mutate, RESET PATTERN, and loading a preset.

9. Settings and Appearance

Open SETTINGS to access LOOK, LAYOUT, and FILES.

LOOK

Four color themes are available:

- ACID
- ICE
- AMBER
- ROSE

Each theme has two variants:

- D: Dark
- L: Light

The NOTE layer offers three display styles:

- NUMBERS: large numeric values

- DIALS: minimal digital controls
- ANALOG: subtle retro knobs with scale markings

Changing the display style does not affect MIDI values.

LAYOUT

This section lets you adapt the top layer bar to your workflow:

- Use ON/OFF to show or hide a layer.
- Use the arrows to change its position.
- At least one layer always remains visible.
- Hiding a layer does not delete its values or disable its musical effect.

RESET LAYOUT under FILES restores the full default order.

10. Saving Custom Presets

SUBTRX presets save the pattern and your personal appearance settings together.

Saving a preset

1. Click SAVE AS.
2. Enter your own name in the file dialog.
3. Keep the **.json** extension.
4. Choose a location and confirm with “Save.”

The file name then appears in the device's PRESET field.

Loading a preset

1. Click LOAD.
2. Select a previously saved SUBTRX JSON file.
3. Confirm with “Open.”

A preset includes steps, global settings, pitch register, color theme, NOTE view, and the order and visibility of layers.

A SUBTRX preset does not contain an instrument sound. Save the instrument separately in the Live Set, in a Rack, or as an Ableton preset.

11. Exporting MIDI

Open MIDI / FILES or SETTINGS → FILES. Three export options are available.

CLIP: EMPTY SLOT

1. In Live's Session View, select an empty clip slot on a MIDI track.
2. Click CLIP: EMPTY SLOT in the device.
3. SUBTRX creates the MIDI clip in the selected slot.

Audio tracks and occupied slots are never overwritten.

CLIP: NEW TRACK

Click CLIP: NEW TRACK to create an additional MIDI track containing the generated clip. The new track initially contains no instrument.

SAVE MIDI FILE

1. Click SAVE MIDI FILE.
2. Enter a name ending in **.mid**.
3. Save the file.
4. Drag it onto a MIDI or instrument track in Live.

This method is also suitable for Arrangement View and for exchanging sequences with other MIDI-compatible software.

Copying a generated clip

1. Click the colored body of the generated clip in Ableton Live.
2. Press Cmd+C.
3. Click an empty slot on another MIDI track.
4. Press Cmd+V.

The keyboard focus must be on the clip or destination slot in Live. If the device interface or a file dialog is active, Cmd+C and Cmd+V do not apply to the clip. The export button alone does not write anything to the clipboard.

The export contains 16 precomputed sequence cycles. Chance decisions, Ratchets, Swing, and Delay are included. With the neutral default pattern, this produces eight bars of 4/4 with 128 notes. Exporting does not start playback or change the project tempo.

12. Practical Starting Recipes

Quick Hi-Hat Variation

1. Select a suitable hi-hat note.
2. Set PULSES to 2 or 4 on several steps.
3. Use RATCHET sparingly.
4. Set individual CHANCE values to 60-90%.
5. Use MUTATE at a low value for small changes.

Percussion Groove

1. Distribute different Drum Rack notes across NOTE.
2. Set individual GATE steps to REST.
3. Change VELOCITY to create accents.
4. Add a little SWING and small DELAY values.
5. Lock important steps, then randomize only the layer you want to change.

Controlled Variation

1. Build a basic pattern.

2. Lock the kick, snare, or other fixed anchor points.
3. Select the layer you want to vary.
4. Set MUTATE to 10-30%.
5. Press MUTATE and use UNDO when needed.

13. Troubleshooting

I cannot hear any sound

- Make sure an instrument is placed after SUBTRX.
- Start Ableton Live's transport.
- Make sure RUN is ON.
- Check GATE, CHANCE, and the active pattern length.
- Verify that the generated MIDI notes match your instrument or Drum Rack.

The MIDI clip is not created

- Use an empty slot on a MIDI track.
- Click the slot once before exporting.
- Alternatively, try CLIP: NEW TRACK or SAVE MIDI FILE.

Cmd+V does not paste onto the destination track

- First click the generated clip in Live and press Cmd+C.
- Then click an empty MIDI slot and press Cmd+V.
- Close any open Save or Load dialogs.
- Make sure Max or the device does not have keyboard focus.

LOAD does not let me select my file

- Use a **.json** file saved by the device.
- Select the file once in the Open dialog so that the Open button becomes active.

Two sequences play at the same time

If the exported clip plays on the same track while the sequencer is still running, both may generate MIDI notes. Turn RUN off or use a separate instrument track for the clip.

14. Timing and Performance

MIDI playback itself runs in Max's native scheduler. Changing the color theme, NOTE display, or layer order does not recalculate the pattern.

Audible latency is still affected by Live's audio buffer, the instrument, plug-ins, MIDI hardware, and system load. Adjust the buffer size in Ableton Live's audio settings when necessary.

15. Product Information

Product: SUBTRX SEQ 01 Version: 1.3 Type: Max for Live MIDI Effect Design: designed by Max Tebbert File format: **.amxd** Preset format: **.json** MIDI export: Live clip and Standard MIDI File