USER MANUAL

v1.0

TGB-420

Sequencer

**A CLASSIC STAGE SEQUENCER,
REBUILT FOR HYPNOTIC TECHNO.**



THE GREAT BEYOND
@GREATBEYONDMN

MAX FOR LIVE MIDI EFFECT
ABLETON LIVE 11+

GET *started*

The TGB-420 is an 8-stage sequencer. Each stage holds a note and decides how long it lasts and how often it plays. Short stages, long stages, rests and repeats make the groove; a few notes make the riff.

✦ QUICK START

01 Drop **TGB-420 Sequencer** on a MIDI track, in front of an instrument.

02 Press play in Live. The sequence runs in time with your set; the playing stage lights up and its dial glows on every note.

03 Click the **dice**. Set **Pool** to **Tension** or **Hypnotic** and **Notes** to 2 or 3 for a focused techno riff. Didn't like it? Hit ◂ to go back.

04 Shape the rhythm: click a stage's **mode** (– I II I–) and its **pulse cells** to make it shorter or longer.

05 Open the side panel (the orange **Patterns · Evolve** tab at the right edge) and **shift-click a slot** to save the pattern. It's stored in your Live Set.

REQUIREMENTS

- Ableton Live 11 or later.
- Live Suite, or Live Standard with the Max for Live add-on. Not available in Intro or Lite.
- Following Live's scale needs Live 12.

GOOD TO KNOW

- Every control is a real Live parameter: automate it, MIDI-map it, use it from Push.
- Hover any control and read Live's Info View for a description.
- Live's transport drives the clock. The sequencer runs while Live plays.

THE *layout*

Left to right: how it plays, the stages (8 at a time, up to 16), and the length and randomize settings. The orange **Patterns · Evolve** tab on the far right opens the pattern panel.



1 Play mode (Seq, Bass, Arp) and Transpose.

2 Clock, Swing, Step Nudge, and the controls of the current play mode.

3 Layer tabs: what the dials edit (Pitch, Velocity, Gate, Chance, Aux), each in its own color.

4 Stage dial and readout. The dot lights on the playing stage.

5 Stage mode, divider and pulse cells.

6 Direction and Scale.

7 MIDI Clip export, Reset on stop, MIDI Thru.

8 Number of stages and how the cycle is counted.

9 Randomize panel: the dice, its settings, Back/Forward, Seq Reset.

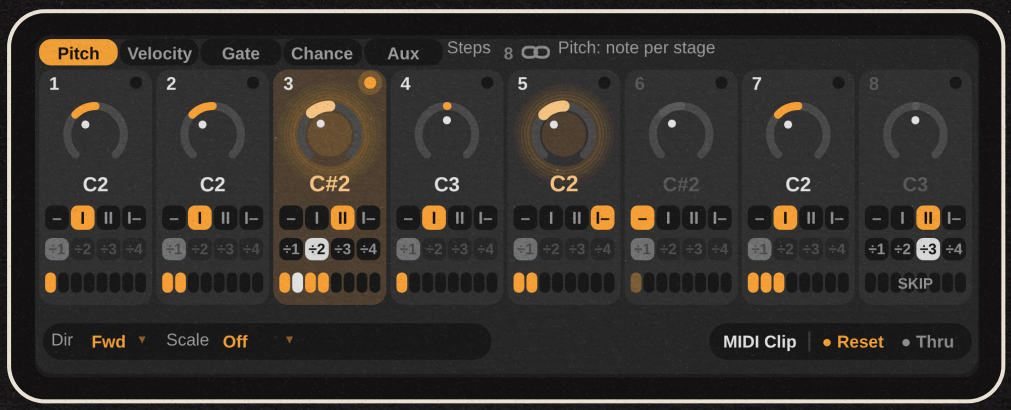
10 The Patterns · Evolve tab opens the side panel: 8 slots, Evolve, Custom pool.

THE STATUS LINE

Short messages appear in the bottom bar, between Scale and MIDI Clip: what was rolled, which slot was saved, where a clip went. Above 8 stages the page switch takes that spot, and messages show for a few seconds in the scale line instead.

THE *stages*

The stages play in order. Each one lasts a number of pulses (one pulse is one clock step, a 16th by default) and its mode decides what happens during those pulses.



MODE

–	Rest. The stage takes its time but stays silent.
I	One note at the start of the stage.
II	A note on every pulse, thinned out by the divider.
I–	One note held for the whole stage.

DIVIDER ÷1–÷4

For mode II: play every 1st, 2nd, 3rd or 4th pulse. Picking a divider switches the stage to II.

PULSES

The eight cells under each stage set its length, 1 to 8 pulses. Click a cell to set it. Click the only lit cell again to **skip** the stage entirely.

LAYERS

PITCH	Note per stage, ±36 semitones from C3. The name shows the note that plays; a dot means the scale moved it.
VELOCITY	1–127. Louder stages glow brighter.
GATE	Note length in % of a pulse. 100% ties into the next.
CHANCE	Probability the stage plays. Roll per pulse or per stage.
AUX	A CC, pitch bend or aftertouch value per stage.

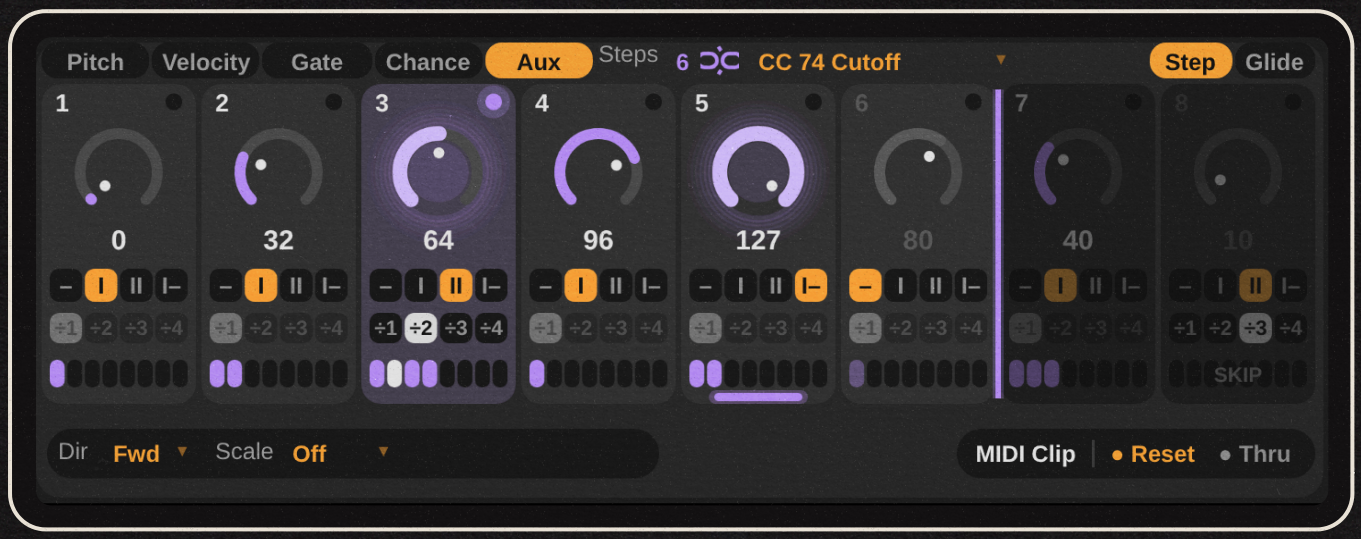
Each layer has its own color: Pitch **orange**, Velocity **yellow**, Gate **green**, Chance **blue**, Aux **violet**.

LENGTH AND DIRECTION

Stages: 1–16; unused stages fade to dark. Above 8, a page switch appears in the bottom bar: click **1–8** or **9–16**, or turn on **Follow** (circle arrow) so the page follows the playhead. **Count by Stage** ends the cycle after the last stage; **Count by Pulse** restarts after a fixed number of pulses, which is great for odd lengths against the bar. **Dir** plays forward, reverse, ping-pong, or a random stage each time (each still plays its full length).

LAYER *steps*

Every layer can loop on its own length. The rhythm keeps running on Stages; pitch, velocity, gate, chance or aux can run shorter or longer against it.



STEPS AND THE CHAIN

LINKED	Gray number, closed chain. The layer follows Stages, as it always did. This is the default.
UNLINKED	Change the number (1–16) and the layer loops on its own length. The chain breaks and turns the layer's color.
CHAIN	Click it to link the layer back to Stages, or to unlink it at the current length.

Steps always sets the layer you're looking at. Pitch also covers Bass mode's octaves.

WHAT YOU SEE

- Stages past the layer's length are dimmed, with a line where it loops.
- A bar under a stage shows where the layer is right now; the lit column is still the rhythm.
- A dot on a layer tab means that layer runs its own length.

HOW IT MOVES

Each time the sequence moves to a new stage, every unlinked layer moves one step and wraps at its own length. It follows Dir, and Retrig, Reset and Seq Reset start all layers together.

TRY THIS

Stages **8**, Pitch on **5** or **7**. The riff lands differently on the rhythm every bar and only comes round again after 40 or 56 stages. Or keep the notes and give Aux **16** for a filter line that takes two bars to repeat. Pattern slots save each layer's steps; MIDI Clip runs until the layers line up again (up to 16 bars).

THREE WAYS *to play*

The stages always make the rhythm. The play mode decides where the notes come from.

SEQ



Each stage plays its own pitch. The classic way.

BASS



One note, set by **Note** or a key you play. The Pitch dials become **octave jumps** (−2 to +2).

ARP



Plays the keys you hold, one per note, in the stages' rhythm. Pitch dials transpose each stage.

✦ ARP SETTINGS

STYLE	The order of the held notes: 17 styles, as in Live's Arpeggiator (see below).
OCT	Spread the held notes over 1–4 octaves.
LATCH	Keeps playing after you let go. A new chord replaces it.

✦ RETRIG

In Bass and Arp, pressing a key after letting go of all keys restarts the pattern from stage 1. On by default.

✦ ALWAYS THERE

CLOCK	Pulse length: 1/32, 1/16, 1/8 or 1/4.
SWING	Delays every second pulse.
TRANSPOSE	±24 semitones, before the scale.
NUDGE ◂▸	Shifts every stage one place left or right; the end wraps around. With 1-pulse stages that's exactly one step earlier or later.

ARP STYLES

Up / Down low to high / high to low
UpDown / DownUp there and back, ends once
Up & Down / Down & Up there and back, ends twice
Pinky Up / UpDown top note between every note
Thumb Up / UpDown bottom note between every note
Random Other no repeats until all have played
Converge outside in
Diverge inside out
Con & Diverge in, then back out
Play Order the order you pressed the keys
Random any held note each step
Random Once one random order, kept until the keys change

ROLL *the dice*

Random, but musical. Hypnotic techno rarely needs more than two to four notes; the randomizer is built around that.



TARGET

LAYER	Only the dials you're looking at.
RHYTHM	Modes, dividers, pulses, gate and chance. Pitches stay.
ALL	Pitch, velocity, gate and aux. Chance is not included, nor modes, dividers or pulses.

NOTE POOLS

CLASSIC	Any pitch across the full range.
ONE NOTE	The root only. The rhythm does all the work.
POWER	Root and fifth. Stable and driving.
TENSION	Root and the note a half step up. Uneasy, pulling.
HYPNOTIC	Root plus two close notes. Focused, trance-like.
DARK	Root, half step, fifth and octave.
SCALE	Any note of the active scale.
CUSTOM	The notes you light up in the side panel.

SHAPING THE ROLL

Notes caps how many different pitches a roll may use (1–8). **Oct** is the chance that a stage jumps an octave up or down: same notes, more movement.

Hover **Pool** to see the exact notes it will use with your current root and scale.

Hot streak: roll four times within five seconds and the dice catches fire. Keep going to stoke it.

◂ BACK ▸ FORWARD

Every roll, slot recall, slot save, clear or copy, nudge and Evolve step can be undone. Up to 16 steps.

SEQ RESET

All stages back to defaults: C3, velocity 100, gate 50%, mode I, one pulse. Patterns and settings stay. Back undoes it.

SCALE *& aux*

SCALE

OFF	Any note. The default.
LIVE	Follows the scale set in Live 12 and updates when you change it. When Live's scale is switched off, the device plays chromatic too.
CUSTOM	A root and scale for this device only (16 scales).

Notes outside the scale move to the nearest scale note; a tie goes down. Your dials are never changed, so switching Scale off brings back exactly what you set. Note pools fit themselves to the scale: a pool note outside it moves up to the next scale note, so **Tension** in C major plays C and D, and in Phrygian C and C#.

AUX



TARGET	Pitch Bend, Aftertouch or any CC. Common CCs are named (CC 74 Cutoff, CC 71 Resonance…). Entries marked (!) are bank select or channel messages that can reset hardware.
LEARN	Pick **Learn CC…** and move a knob on your controller: Aux takes that knob's CC number.
MAP	Drive any Live control directly instead of sending MIDI. See **Aux map**.
STEP / GLIDE	Jump to each stage's value, or slide to it over the stage.

TIP

Live's own instruments ignore CCs sent from a MIDI effect. Use Aux with plug-ins and hardware synths, click **Map** to drive a Live device's control directly, or send **CC 1 Mod Wheel** into Expression Control (see Aux map).

AUX *map*

Instead of sending MIDI, Aux can move any control in Live directly: a plug-in's cutoff, a macro, a send, a mixer volume.

MAPPING A CONTROL

01 On the **Aux** layer, click **Map**. The row reads **Click a control in Live...**

02 Click the control you want. For a plug-in, the parameter has to be added to the device first with **Configure** (it then shows in the plug-in's device panel); click it there.

03 The row shows the control's name. The control goes gray in Live: the sequencer is driving it now.

RANGE	The two numbers set which part of the control Aux 0–127 covers, in % of its range. 20 – 60 % keeps a filter sweep in a musical window.
STEP / GLIDE	Same as with MIDI: jump to each stage's value, or slide to it over the stage.
×	Unmap. The control is free again and Aux goes back to the CC menu.
SAVED	The mapping is saved with your Live Set and comes back when you open it.

GOOD TO KNOW

A MAPPED CONTROL IS TAKEN OVER

While it's mapped, Live won't let anything else move that control: not your mouse, not automation, not a clip envelope. That's normal Live behavior for remote-controlled parameters. Unmap with × (or switch the device off) to get the control back.

WHY MAPPED AUX CAN'T BE SAVED

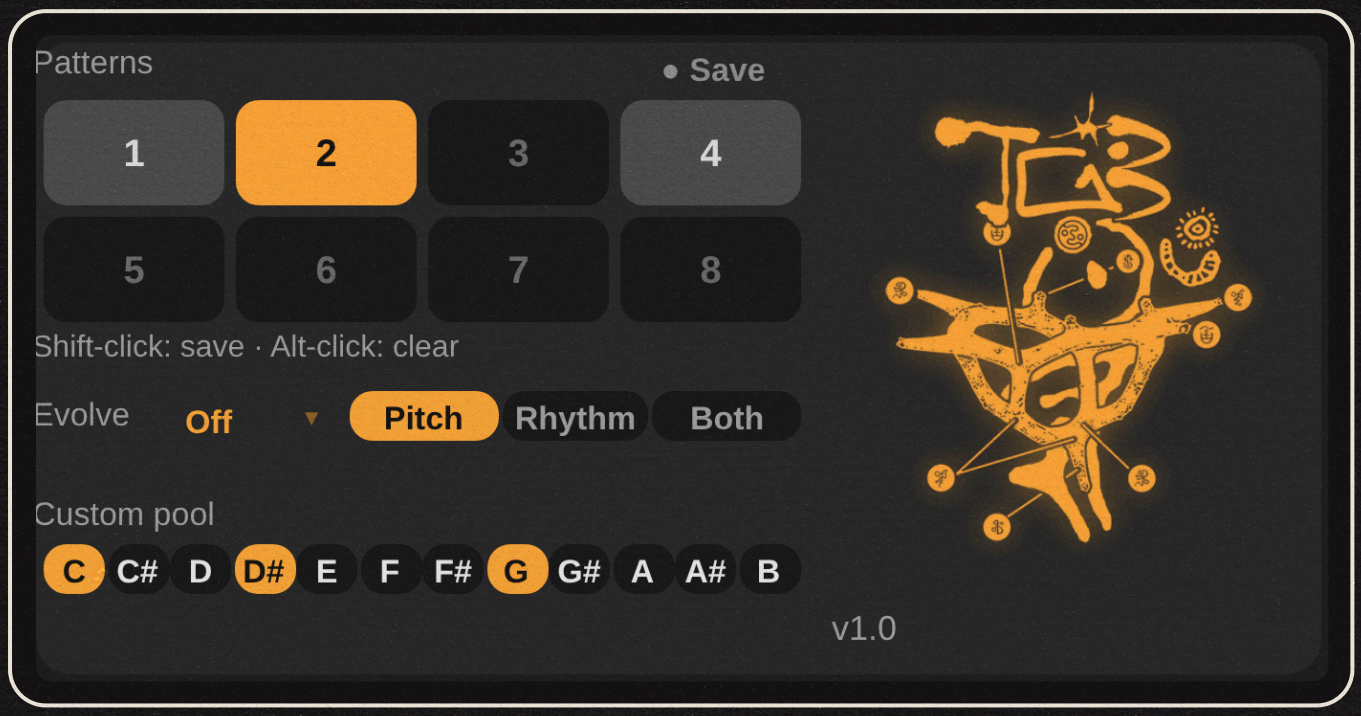
This is a limit in Ableton Live, not in TGB-420. Live gives Max for Live devices no way to write clip envelopes, and it doesn't record a control as automation while a device is driving it. So Map movement can't go into a clip, by any device.

GETTING AUX INTO A CLIP

Send Aux as the mod wheel and let Live's **Expression Control** turn it into knob movement:

- **Set it up.** Aux menu on **CC 1 Mod Wheel** (Map cleared). After TGB-420 add Expression Control: Source **Modwheel** (it only reads CC 1), **Remote** mode, Target = the control.
- **Record it.** On a second MIDI track, set **MIDI From** to this track and **Post FX**, arm it and record. Notes and CC 1 land in the clip; play it through Expression Control and the same instrument.

PATTERNS *& clips*



PATTERN SLOTS

CLICK	Recall. While playing, the switch waits for the end of the cycle (the slot blinks).
SHIFT-CLICK	Save the current sequence. Or turn on **Save** and click.
ALT-CLICK	Clear the slot.
DRAG	Drop a slot onto another to copy it there. Nothing changes in what's playing.

A slot keeps every stage setting on every layer, plus the number of stages, each layer's steps, direction and transpose. Slots are saved inside your Live Set.

EVOLVE

Every 8, 16, 32 or 64 bars, Evolve makes one small change: a stage's pitch, a stage's rhythm, or either. Pitch changes stay inside your note pool. Every change can be undone with Back.

CUSTOM POOL

Light up the notes the **Custom** pool may use.

Click the TGB logo for credits and contact.

MIDI CLIP

Writes the sequence into the first empty clip slot on this track (adds a scene if all are full), named **Seq 01**, **Seq 02** and so on. Pitch, velocity, gate and swing are exact; chance becomes note probability. One cycle (until all layer steps line up, max 16 bars), stretched to whole bars. Aux isn't included: Live doesn't let devices write it (see Aux map for how to record it). In Seq mode, switch the device off to hear the clip as written.

TIPS *& tricks*

✦ HYPNOTIC IN FIVE MOVES

01 Pool **Tension** or **Hypnotic**, Notes **2**, Oct around **20%**. Roll until the riff locks in, then save it.

02 Leave the notes alone. Set Target to **Rhythm** and roll that instead.

03 Put the Chance layer at 60–90% on two or three stages, rolled **per stage**, for variations that never repeat exactly.

04 Set Stages to 5 or 7 against a 4/4 kick, or keep 8 and put Pitch on 5 Steps, for a pattern that drifts over the bar.

05 Turn on Evolve every **32 bars** for slow change over a long blend.

MAPPING AND PUSH

- All controls can be MIDI-mapped and automated, including the dice, Back/Forward and Nudge.
- On Push the parameters are grouped in pages: Pitch, Velocity, Gate, Chance, Mode, Pulses, Aux, Octave, Global, Random, plus 9–16 pages for the second set of stages.

TROUBLESHOOTING

- **No sound:** Live's transport must be playing; in Arp mode, hold keys or turn on Latch.
- **Clip plays double:** switch the device off while the exported clip plays.
- **Aux does nothing:** the target instrument must listen to that CC, or map the control with **Map**.
- **Mapped Aux isn't in my clip:** Live doesn't allow it. Use CC 1 + Expression Control and record (see Aux map).