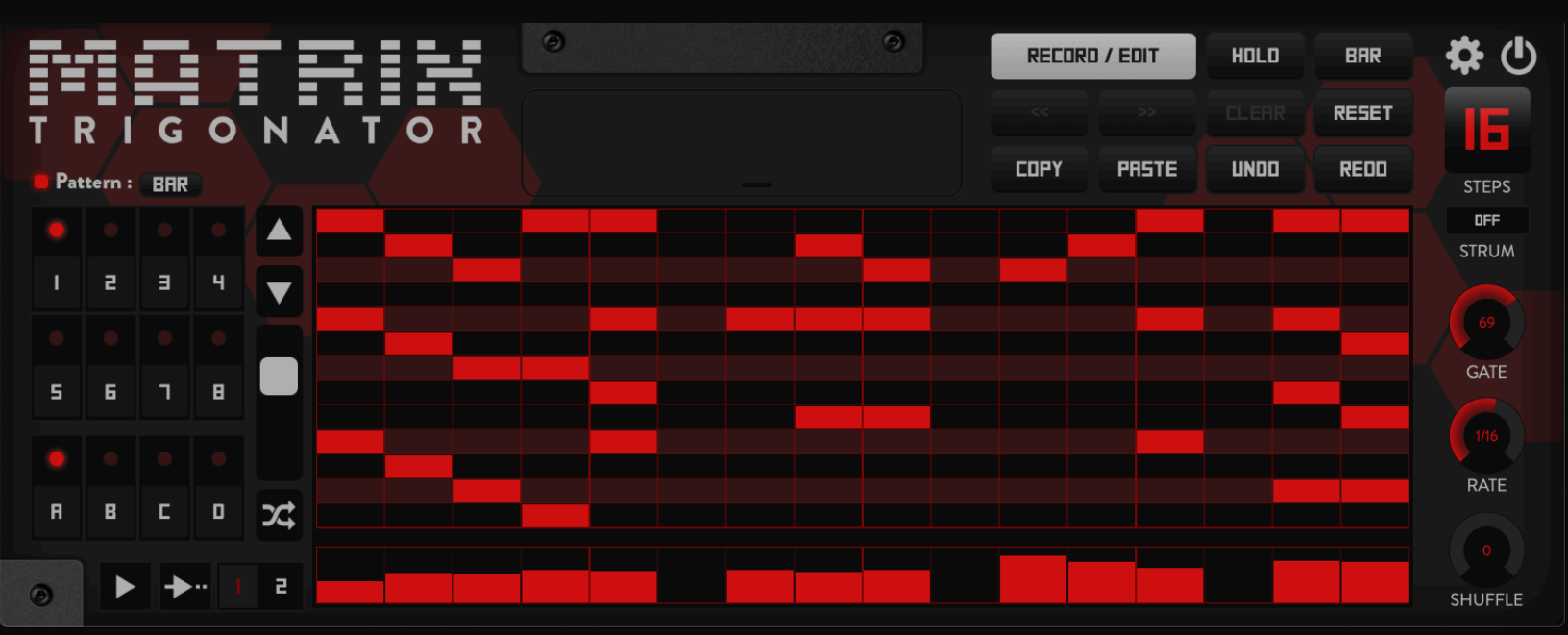

Matrix Trigonator

User Guide — v1.2.0

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Introduction

Matrix Trigonator is a polyphonic step sequencer VST3/AU plugin for Mac and Windows. Inspired by the legendary Matrix Pattern Sequencer from Propellerhead's Reason — one of the most beloved sequencers in music production history — Matrix Trigonator takes the core concept further with polyphonic input, live transposition, chord recording, and a modern live performance workflow.

Matrix Trigonator does not generate sound on its own. It sends MIDI to any instrument plugin or hardware synth connected to its output.

Installation

Mac (VST3 & AU)

> ⚠️ **Important — Security Warning** Matrix Trigonator is developed by an independent developer without an Apple Developer subscription. On first launch, macOS will display a warning saying the plugin cannot be verified.
>
> **To authorize it:**
>
> 1. Open **System Preferences** → **Privacy & Security**
> 2. Scroll down to the Security section
> 3. Click **"Open Anyway"** next to the Matrix Trigonator warning
> 4. Confirm by clicking **"Open"**

VST3: Copy `Matrix Trigonator.vst3` to `/Library/Audio/Plug-Ins/VST3/`

AU: Copy `Matrix Trigonator.component` to `/Library/Audio/Plug-Ins/Components/`

After installing, rescan your plugins in your DAW if necessary.

Windows (VST3)

Copy `Matrix Trigonator.vst3` to `C:\Program Files\Common Files\VST3\`

> ⚠️ Windows SmartScreen may display a warning on first install. Click **"More info"** then **"Run anyway"**. This is normal for unsigned software from independent developers.

Setup in Ableton Live

> Use the **VST3 version** in Ableton — this is a limitation to Ableton Live.

1. Create a **MIDI track** and load Matrix Trigonator as an instrument
2. Create a second **MIDI track** with your synth of choice
3. On the **synth track**, set **MIDI From** → `Matrix Trigonator`
4. Just below that, set the second dropdown to → `Matrix Trigonator` (the plugin itself, not the track)
5. Set **Monitor** to → `In`
6. **Arm** the Matrix Trigonator track

💡 Quick Start — Enable Tooltips

Not sure what a button does? Matrix Trigonator has a built-in tooltip system.

1. Click the gear icon (top right of the plugin)
2. Enable TOOLTIPS in the settings panel
3. Click OK on the welcome screen
4. Hover over any element to get instant information

The Note Matrix

The heart of Matrix Trigonator. A grid of up to **32 steps** (columns) × **13 notes** (rows), covering one chromatic octave.

- **Left click** on an empty cell → adds a note
- **Right click** on a note → removes it
- **Hold + drag** left or right → draw or erase multiple notes in a row
- **Left click + drag** an existing note → move it to a new position

The matrix always displays 13 notes at a time. Use the **Octave Selector** to scroll through 5 octaves vertically — similar to how the Page buttons let you scroll through steps horizontally.

> **Important:** Moving the Octave Selector does not transpose your pattern. It only scrolls the view, like a camera. Your notes stay exactly where you put them.

Velocity

The bar at the bottom of the interface shows the velocity for each step. All notes in the same step share the same velocity value.

- **Click and drag up/down** on any bar to change its velocity (0–127)

Pattern & Bank Selection

Matrix Trigonator has **32 pattern slots**, organized in 4 banks of 8:

- **Click a Pattern button** → switches pattern immediately (visually) but waits for the current bar to finish before switching audio
- **Pending pattern** → blinks rapidly while waiting to become active
- All 32 patterns are independent — each can have its own step count, notes and velocities

Tip: Each pattern can have a different step count. Try 16 steps on A1 and 8 steps on A2 for interesting polyrhythms.

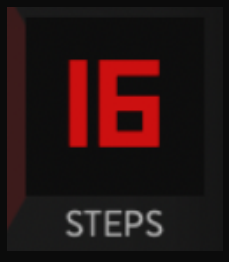
Pattern Sync

The Pattern Sync button controls *when* a pending pattern change takes effect.

- **BAR** *(default)* — the new pattern activates at the start of the next bar. Great for live performance: trigger your next pattern early, then focus on playing.
- **BEAT** — the new pattern activates on the next beat. Tighter transitions, useful for faster pattern switching mid-performance.
- **STEP** — the new pattern activates on the very next step. Instant switching, stays in sync with the grid.

In all three modes, the pending pattern button blinks until the switch happens.

Step Count



The **STEPS display** (top right) shows the current pattern length. Range: 1 to 32 steps.

- **Left click** → decrease by 1
- **Right click** → increase by 1
- **Hold** → auto-scroll

Note: Reducing the step count doesn't erase the hidden steps — increase it again and they come back.

Page Switch (1 / 2)

When your pattern has more than 16 steps, use the **PAGE 1 / PAGE 2** button to view and edit steps 1–16 or 17–32.

The **FOLLOW** button (when enabled) automatically switches the view to the page containing the current playhead position.

RECORD / EDIT — Step Recording

RECORD / EDIT enables step-by-step recording from a MIDI keyboard. Incoming notes are written into the grid one step at a time.

1. Select an empty pattern
2. Press **RECORD / EDIT** — the playhead jumps to Step 1 and blinks, waiting for input
3. Play a note or chord on your keyboard — it is recorded as Step 1, and the playhead moves to Step 2
4. Continue playing — each note or chord advances one step
5. Recording stops automatically when all steps are filled
6. Press **RECORD / EDIT** again at any time to stop manually

> While recording, your instrument plays back the notes in real time so you can hear what you're entering.
>
> **Overdub:** Pressing STEP IN on a pattern that already has notes will overdub on top of the existing content.

HOLD Mode

The **HOLD** button changes how Matrix Trigonator responds to incoming MIDI notes.

HOLD OFF (default): The pattern plays only while you hold a key on your keyboard. Release the key → the sequencer stops sending MIDI and your synth goes silent. The internal loop keeps running silently in the background.

HOLD ON: Play any note → that note becomes the new transposition root and the pattern keeps playing even after you release the key. Play another note to change the transposition. The pattern never stops until you turn HOLD off or stop the DAW.

Live Transposition

While the DAW is playing, incoming MIDI notes from your keyboard transpose the entire pattern in real time.

- Play **C** → pattern plays as programmed
- Play **D** → pattern is transposed up 2 semitones
- Play **G** → pattern is transposed up 7 semitones

To determine *when* the transposition takes effect:

STEP — transposes on the very next step
BEAT — transposes on the next beat
BAR — transposes on the next bar

Copy, Paste, Clear, Reset, Undo

COPY — copies the current pattern (notes + velocities)
PASTE — pastes the copied pattern into the currently selected pattern (overwrites)
CLEAR — removes all notes on the currently selected step.
RESET — deletes all notes in the current pattern and restores an empty state.
UNDO — reverses the last action (up to 20 steps), including grid edits, parameter changes, step count, HOLD state, and mode switches.
REDO — reapplies the last undone action.

Pattern Editing Controls

Pattern Cursor Controls (Edit Mode only << / >> — moves the edit cursor one step forward or backward

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Transpose Up / Down

The two arrow buttons (↑ ↓) transpose the entire pattern one semitone at a time.

> If a note is already at the highest or lowest position in the matrix, it will be moved one octave in the opposite direction rather than disappearing.

Random

The **Random** button introduces subtle variations into the current pattern — without adding notes that weren't there before.

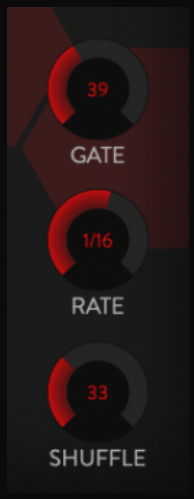
Each press applies a new layer of variation:

- Velocities shift slightly
- Some steps may be silenced (never the first step, never two consecutive steps)
- Chords may lose one note (never all)
- Some notes may shift one octave (only if it keeps them within range of the rest of the pattern)

Between **50% and 80%** of the original pattern is always preserved, so the pattern remains recognizable. Press multiple times to drift progressively further from the original.

> **Tip:** Press RANDOM once for a subtle variation, then keep pressing to explore further. Use COPY first to save your original before randomizing!

Knobs



GATE

Controls the length of each note. At 100, notes play for the full duration of a step. Lower values create shorter, more staccato notes.

RATE

Sets the rhythmic resolution of the sequencer:

SHUFFLE

Adds swing and groove. At 0, the pattern is perfectly straight. Higher values delay every other step, creating a shuffle feel. Try automating this for evolving rhythms!

STRUM

When a step contains a chord (multiple notes), STRUM delays each note slightly — from the lowest pitch to the highest — creating a strumming effect.

- **Slider left (OFF)** → all notes in a chord play simultaneously
- **Slider right** → notes are spread out, one after another

The strum effect is always bottom-to-top (low to high). The last note of the strum always plays before the end of the step, so it never bleeds into the next step.

> The matrix display always shows chords as perfectly quantized — the strum only affects the MIDI output, not the visual.

PLAY Button

The **PLAY** button lets you preview your pattern without starting the DAW.

- Click PLAY → the sequencer starts using an internal clock at 120 BPM (or the DAW's current BPM if available)
- When you start playback in your DAW, PLAY activates automatically and syncs to the DAW tempo
- When the DAW is stopped, you can still play your keyboard through Matrix Trigonator to hear your synth — MIDI pass-through is always active when the sequencer is not running

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BYPASS

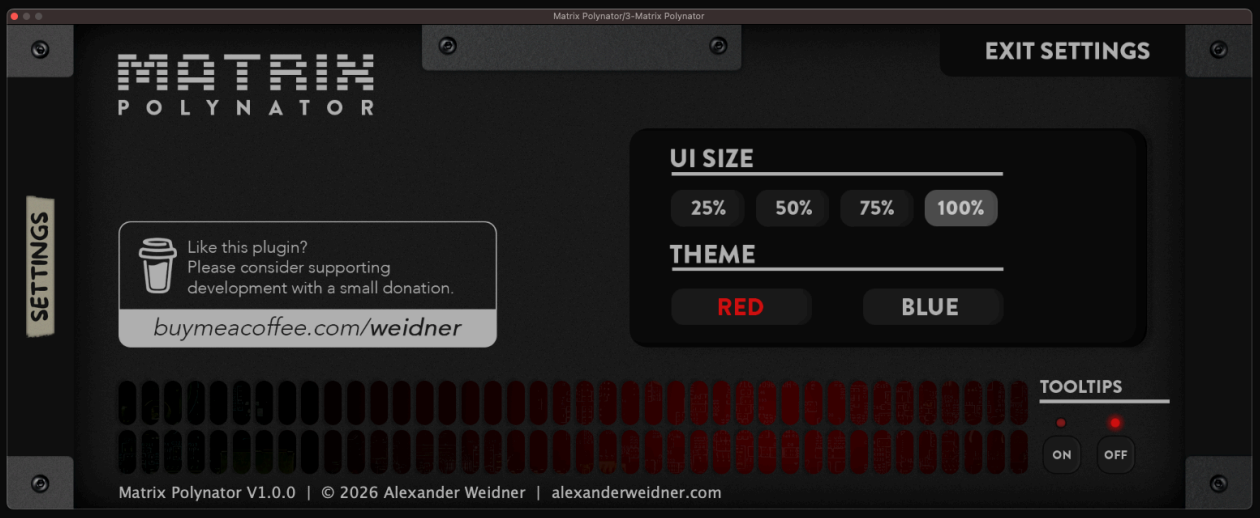
Bypasses the sequencer — the pattern stops playing, but MIDI pass-through stays active. Your keyboard still plays the connected instrument normally.

Octave Selector

The vertical slider on the left of the matrix scrolls the note display through 5 octaves. This is a **view control only** — it does not transpose your pattern.

Think of it like scrolling left/right with the PAGE buttons, but vertically for notes.

Settings Panel



Click the **gear icon** (bottom left) to open the Settings panel — the back of the rack.

UI Size
Choose between 4 display sizes: 25%, 50%, 75%, 100%.

Theme
Switch between **RED** (default) and **BLUE** color themes.

Tooltips
Enable to show helpful information when hovering over any element.

Tips & Tricks

- **Polyrhythms:** Set different step counts on different patterns — A1 at 16 steps, A2 at 12 steps creates an interesting evolving loop when chained.
- **Chord voicings:** Use the Octave Selector to place notes across multiple octaves in the same pattern. The matrix supports notes spanning 5 octaves simultaneously.
- **Live performance:** Use HOLD ON + BAR retrigger for smooth, musical key changes during a live set.
- **Automation:** Gate, Shuffle, Resolution and Strum can all be automated from your DAW for expressive, evolving sequences.
- **Randomize safely:** Always COPY your pattern before hitting RANDOM — you can always PASTE it back if you prefer the original.
