

# Eloquencer Firmware Release Notes

## Versions 1.3.9 + 1.4.0

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### NEW FEATURES

#### MOD – STEP MODIFIERS

- **Step Modifiers** allow you to define conditions for when steps are active (e.g., depending on previous events, track dependencies, X:Y ratios in loops, etc.).
- Modifiers can trigger different actions like: activating/muting gates, pitch transposing, using the previous track's pitch, etc.

Examples:

- **Long Cycles on Short Patterns:** Use X:Y(e.g., 2:4) to activate a step only on the 2nd iteration of a 4-pattern loop.
  - **Inter-Track Pitch Dependency:** Make a track's pitch depend on another track's note.
  - **Inter-Step Dependency:** Activate steps based on whether earlier steps triggered (e.g., snare hit on step 13 triggers actions on steps 15 and 16).
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#### PATTERN / PART / SONG

- **New Pattern Reset Types** (found via **FUNC + PATTERN (hold)**):
  - **Off:** Tracks reset per their own configuration.
  - **On:** Tracks always reset.
  - **First:** Tracks reset only the first time they are played after switching patterns.
- **Option to:** Pattern Change at Next Step / Pattern Change at End of Pattern  
Choose whether patterns change immediately at the next step or at the end of the pattern (Single Pattern Play mode).  
*Find it in **FUNC + OPTIONS > PROJECT > Patt Change**.*
- **Option to:** Part Change at End of Part / Part Change at End of Pattern  
Choose whether parts change at the end of the part or at the end of the pattern.  
*Find it in **FUNC + OPTIONS > PROJECT > Part Change**.*
- **Security Confirmation:** Added when creating a new song.
- **Song Mode Improvements:**  
Pattern and part counters are now shown on the display.

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## SYNCHRONIZATION

**Possibility to link two Eloquencers + EME.** The slave Eloquencer will follow the Master Eloquencer, this includes Tempo, pattern played by Master and pattern edited by Master.

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## LIVE RECORDING

- **New Recording Modes:**
    - **Mono:** If one track is selected (Legato mode).
    - **Polyphony:** If multiple tracks are selected (FIFO mode).
  - **New LIVE REC Mode: GATE1 CV2:**  
Record gates on CV1 and CV voltages on CV2 (**FUNC + LIVE REC > CV IN GATE1 CV2**).
  - **Gate Delay for CV Recording:**  
Adds a delay to avoid triggers being detected before CV value is updated (**OPTIONS > GLOBAL > Gate delay in REC**).
  - **Track Deletion:**
    - Hold Track button > 0.5s: delete track in current pattern.
    - Hold Track button > 2s: delete track across all patterns.
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## STEP MODE

- **STEP MODE DIV/x separated:**  
DIV/x can now be applied alongside other step modes (FWD, BCKW, RANDOM...).
  - **Gates Relative to STEP DIV/x:**  
Step mode gate lengths adjust proportionally.
  - **STEP MODE DIV/x extended:**  
Now up to 64 divisions.
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## TRACK LENGTH

- Improved track length display.
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## SCALE

- **Track-Specific Scale Override:** **OPTIONS > PROJECT > Quant. override**)

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## TEMPO

- Tap tempo improvements:
    - Maximum limit now 350 BPM.
    - Debouncing to prevent false triggers.
  - Choose between immediate or confirmed tempo changes ([OPTIONS > GLOBAL > Tempo resp](#)).
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## RANDOMIZATION (RAND)

- TIEs now included in randomization ([FUNC + RAND](#)).
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## CLOCK

- 24 PPQN clock output added ([FUNC + CLK > CLK OUT](#)).
  - Increased internal maximum pattern length to 64 steps.
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## CV IN

New CV In assignments ([FUNC + OPTIONS > CV In Assign](#)):

- Next/Previous Pattern (Trigger)
  - Next/Previous Part (Trigger)
  - Pattern Change (CV)
  - Step Mode (CV)
  - Step Mode DIV/x (CV)
  - Tempo (CV)
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## STEP EDITION MODES

- **CV Probability:**  
Asymmetric ranges now possible using Range Offset (press encoder to toggle).
- **Ratchet Randomization:**  
Choose active ratchets in randomization.
- **Multistep Proportional Editing.**
- **Blocked Track Messages:**  
Now displayed when a track can't be edited due to MIDI routing.

- **Minimum Gate Probability Option:**  
(OPTIONS > GLOBAL > Step Prob. Min)
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## CV-GATE LINK

- Option to mute CV when gates are muted (OPTIONS > PROJECT > MUTE).
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## GENERAL / OPTIONS

- **Options Restructuring:**  
OPTIONS divided into PROJECT and GLOBAL.
  - **New Screensavers:**  
Adjustable delay and styles (OPTIONS > GLOBAL > Screen Saver).
  - **Oscillator Calibration Tool:**  
Send the same CV to all outputs for oscillator tuning (FUNC + OPTIONS > GLOBAL > TUNE).
  - **Pre-Listen Improvements:**  
(OPTIONS > GLOBAL > Pre-listen)
    - Off, All, or Track modes for previewing steps while paused.
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## EME / MIDI INTEGRATION

- **MIDI Keyboard Transposition:**  
(FUNC + MIDI > MIDI IN > Key Transpose)
- **Note Edition via MIDI Keyboard:**  
Hold a step in CV edit mode and press a MIDI key.
- **New EME Custom Buttons:**
  - Next/Previous Pattern Edit
  - Octave Up/Down
  - Play Song
- **New MIDI CC Assignments:**
  - CH1 CC102: Next pattern edit
  - CH1 CC103: Previous pattern edit
  - CH1 CC104: Play Song
  - CH2 CC103/104: Octave down/up (Focus)
  - CH9-16 CC87/88: Octave down/up (Track)
- **MIDI Transport Control Improvements:**
  - Stop listening to/play/stop messages.
  - Stop sending clock/transport if desired.
- **Improved Feedback:**

- Save project feedback when using EME custom buttons.
  - Better feedback for pattern change, track edit, and more.
  - **New MIDI Features:**
    - MIDI note offset to align octaves with Eurorack standards.
    - Incoming MIDI clock shown in BPM.
    - Incoming MIDI CC control can be disabled if needed.
    - Assign one MIDI channel to multiple tracks.
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## **FIXED BUGS**

### **COPY / PASTE / CLEAR**

- Copying and clearing in pattern mode now include/reset 'pattern reset' and 'scale'.
- RP and RVP handling fixed during freeze, duplicate, copy, and clear.

### **EME**

- MIDI transpose settings are now saved.
- CC90 (Clear) now removes TIEs.
- Access to user scales via CC2 CH1.
- Correct button value display during EME BTN assignment.
- Improved MIDI live recording behavior for overlapping notes.

### **TEMPO**

- MIDI CLK to INT speed switching fixed.
- Initial MIDI CLK pulse improved for better external module sync.

### **AUX**

- AUX start trigger output lengthened for better compatibility.

### **SONG MODE**

- First pattern repetition issue fixed.
- Track length editing during song parts now works properly.

### **RESET INPUT (RST)**

- PlayH/StopL reset mode sync issues fixed.

### **CV IN**

- G0 note handling fixed.

- CV IN 1 SW no longer affects CV2.
- CV IN OLED display bugs fixed.
- CVP + CV In value combo working properly.

## **LIVE RECORDING**

- Improved gate length, TIE recording, and MONO mode handling.

## **MUTE**

- Visualization issues in MUTE mode fixed.

## **PATTERN / PARTS**

- Pattern reset saving in Banks C/D fixed.
- Part change via custom buttons now refreshes part length.

## **GENERAL**

- Clock break when editing song mode solved.
- LED Matrix refresh issue when pasting while paused fixed.
- Timing sync between CV and Gates improved (LIVE REC, MIDI Route, Pre-listen).

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**Various other interface and visualization improvements included.**