

Winter Modular Eloquencer & EME Manual

Eloquencer FW V1.4.0

Introduction

Eloquencer is a powerful and versatile Eurorack sequencer that can be used both as a performance and a composition tool. It's designed to be intuitive, easy to use, and quick to edit.

It has been built around the **controlled chance** concept. This means you can decide when and where there will be randomness and how much this randomness will affect your sequences.

It features **8 tracks** of **CV** and **Gate** outputs which are fed by a **16-step sequencer**, with the optional ability to define larger bar counts as well as chaining patterns to build multiple song parts of **256 steps** each.

Parameters like **CV**, **Gate**, **Gate Length**, and **Ratcheting** can be randomized in different ways to obtain permanently evolving patterns.

Many of the parameters can be linked to the **CV inputs** to give additional layers of variation.

An **OLED screen** provides contextual feedback for all the parameters and is used to navigate through the menus.

The **EME** (Eloquencer MIDI Expansion) is the perfect companion for the Eloquencer, adding capabilities to sync with MIDI devices, control most of the Eloquencer parameters via MIDI, generate MIDI voices from Eloquencer tracks, and convert MIDI signals to the Eurorack world.

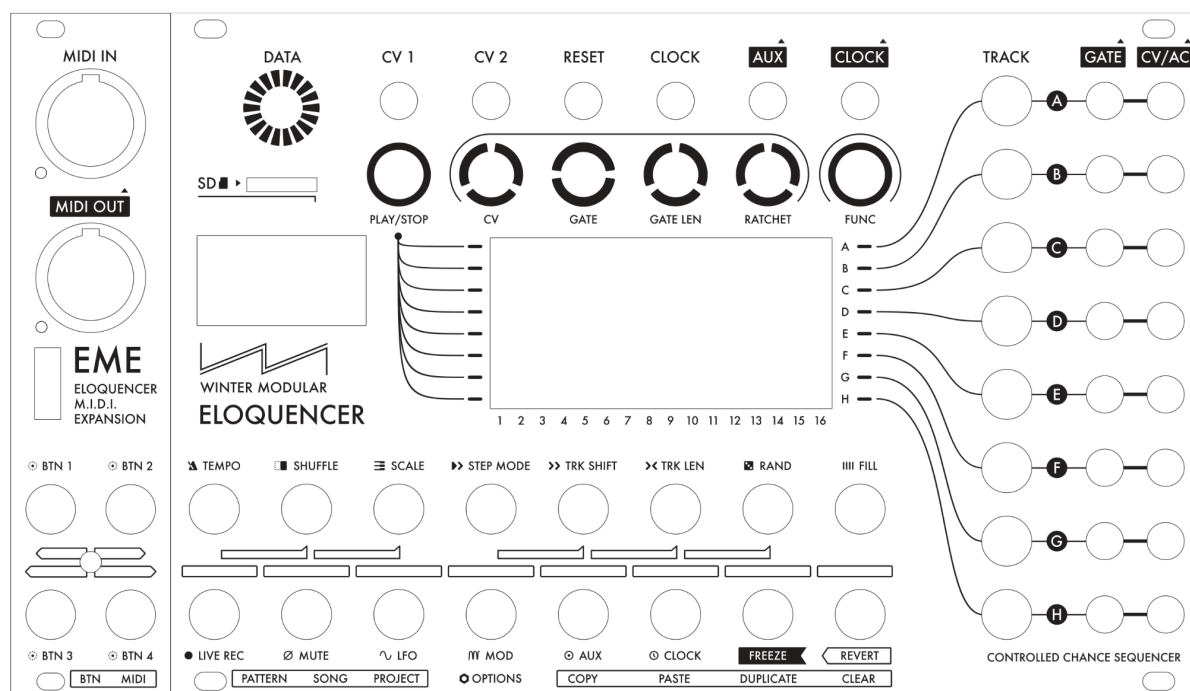


Table of contents

Introduction.....	1
ELOQUENCER Manual.....	2
Table of contents.....	2
Features.....	4
Inputs and Outputs:.....	4
Main Features:.....	4
System Structure.....	5
GLOBAL CONFIGURATION STRUCTURE.....	6
MIDI STRUCTURE.....	6
Panel Description and Features Overview.....	7
Step Edit Modes.....	10
CV Edit Mode.....	11
Gate & Tie Edit Mode.....	12
Gate Length Edit Mode.....	14
Ratcheting Edit Mode.....	15
Secondary Modes.....	18
Patterns And Projects Management.....	37
Pattern Mode.....	37
Pattern Change.....	37
Pattern scale group assignment.....	37
Pattern reset.....	37
Quick pattern chaining (aka Devine mode):.....	38
Pattern Copy / Paste.....	38
Track Copy / Paste.....	39
Copy A Track To Another Track Within The Same Pattern.....	39
Copy A Track To Another Track In A Different Pattern.....	39
Duplicate Pattern.....	40
Clear.....	40
Project.....	40
Song.....	41
Tips.....	43
Troubleshooting.....	44
EME Manual.....	45
Introduction.....	45
Installation.....	45
Updating the Eloquencer.....	45
MIDI IN.....	47
MIDI Keyboard (USB & DIN5).....	47
MIDI IN Route (USB & DIN5).....	48
MIDI IN Configuration.....	48
MIDI OUT.....	50
MIDI CLK.....	50
MIDI Clock out.....	50
MIDI Transport out.....	50

MIDI Transport in..... 50

Load/Save Configuration..... 51

EME Buttons.....51

Appendix 2 - Button Assignment..... 56

ELOQUENCER Manual

Features

Inputs and Outputs:

- ☐ 8x V/Oct CV Outputs
- ☐ 8x Trigger/Gate Outputs
- ☐ Reset Input
- ☐ External Clock Input
- ☐ Aux Output (configurable as EOC, accent, reset out...)
- ☐ Clock Output (can be used as a clock divider/multiplier)
- ☐ 2 CV Inputs (assignable to different parameters)

Main Features:

- ☐ Track start/end point length independent for each track
- ☐ Gate probability independent for each step
- ☐ Tie notes
- ☐ CV, CV Variation Probability, and CV Variation. Probability range adjustable for each step or track.
- ☐ Gate Length, Gate Length Variation Probability, and Gate Length Variation. Probability range adjustable for each step or track
- ☐ Roll Type, Roll Type Probability, and Roll Type Variation Probability are adjustable for each step or track
- ☐ MOD - Step Modifier, a set of tools to create cyclic events and interrelation between events in the same track or the previous track in order to modify gates and CV.
- ☐ Adjustable Tempo and Shuffle, Tap tempo, Nudge adjustment.
- ☐ CV Outputs can be quantized in tone and scale
- ☐ Different step modes (pendulum, backwards, random, clock divided, step repeater...)
- ☐ Fill in mode (pressing the track button will trigger all the gate events in the desired track)
- ☐ Quantized Live Recording (CVs and Gates), Free Play mode, MIDI in recording and CV input recording.
- ☐ Multiple Pattern chaining styles (Quick chaining, Chaining into Parts/Songs)
- ☐ Song Mode (different Parts can be created and chained to create a Song)
- ☐ LFO Mode
- ☐ Track Mutes
- ☐ CV and gates can be linked or unlinked (send CV's when a gate is active, or independently)
- ☐ Patterns longer than 16 steps can be obtained with pattern chaining and with the use of the Master track settings in combination with different track lengths, step modes, or step modifiers (MOD).

System Structure

There are 2 different data and configuration structures (3 if the Eloquencer MIDI Expansion (EME) is connected). These structures are loaded and saved in the SD card independently. Find below the relation of data contained in each structure.

ELOQUENCER/EME DATA & CONFIG STRUCTURE		
PROJECT STRUCTURE	GLOBAL STRUCTURE	MIDI STRUCTURE
<ul style="list-style-type: none"> • STEP DATA (GATE, CV, GL, RAT, MOD PROBABILITIES, RANGES) • TRK LEN • STEP MODE • PATTERNS • SONG PARTS • SONG • TEMPO • SHUFFLE • MASTER TRACK • SCALE • CV IN CONFIG • CV-GATE LINK CONFIG • TRK RESET CONFIG • GL REL TO DIV • PART/PATT END • QUANT. OVERRIDE • RATCHETS IN RANDOM • MUTE IN CV-GATE LINK 	<ul style="list-style-type: none"> • CV OUT & CV IN TUNE • ZERO GAP TUNE • ROTARY DIRECTION • RESET INPUT • WHOLE SONG RESET • MATRIX DIMM • GATE LENGHT SET • TIE RECORD • PRE-LISTEN • SCREEN SAVER • STEP PROB SET • TEMPO RESPONSE • GATE DELAY 	<ul style="list-style-type: none"> • MIDI IN <ul style="list-style-type: none"> • KEY REC • KEY TRANSPOSE • MIDI IN ROUTE • ROTARY TYPE • ROTARY SENSITIVITY • CONTRL FEEDBACK • CC CONTROL • MIDI OCTAVE OFFSET • MIDI OUT ROUTING • MIDI CLK <ul style="list-style-type: none"> • MIDI CLOCK OUT • MIDI TRANSPORT OUT • MIDI TRANSPORT IN

PROJECT STRUCTURE

The project is composed of a group of 64 patterns with common characteristics like configuration, tempo and shuffle.

The total number of projects is 128, with a total of 8192 patterns.

Inside each Project we have 4 banks of 16 patterns each. Each bank can be accessed while in Pattern mode by pressing the first 4 Track buttons. The step buttons will function as pattern selectors.

Each Pattern contains all the information and settings for each of the steps and tracks. Each pattern can be assigned to any of the 8 Scale Group Settings. Each pattern can have its own Reset type.

Each of the eight tracks inside a pattern has their own independent parameters like track length, clock division, or step mode, step mode division...

Each of the sixteen steps inside a track has its own parameters:

□ Cv

- ☐ Cv Variation Probability
- ☐ Cv Variation Range
- ☐ Gate
- ☐ Gate Probability
- ☐ Tie
- ☐ Gate Length
- ☐ Gate Length Variation Probability
- ☐ Gate Length Variation Range
- ☐ Ratcheting
- ☐ Ratcheting Probability
- ☐ Ratcheting Variation Probability
- ☐ MOD event
- ☐ MOD type
- ☐ MOD value

Patterns can be chained as “Song Parts”. A Part is a sequence of patterns with a maximum length of 16 patterns. A total of 64 Parts can be created in a project.

Every project can store a Song, A Song is a sequence of Parts with a maximum length of 256 Parts

The microSD card stores the 128 projects. Once we load a project from the microSD card the project with all its data associated will be loaded into memory. If we power off the system without saving the current project all the changes will be lost.



Remember to save your projects if you want to keep all your edits and changes.



Due to microSD transfer capacity, saving or loading a project may cause a small drift in the tempo. Have this in mind if you need to save or load projects during live performances or recording sessions.

GLOBAL CONFIGURATION STRUCTURE

In this data structure, we store all the global parameters that affect all the Projects. Unlike Project, this information is stored each time it is changed, so the user does not need to specifically save it.

A detailed description of all the Global parameters can be found in the **OPTIONS** section.

MIDI STRUCTURE

All MIDI-related information can be found in the EME manual. There are two independent EME-related configurations: the MIDI configuration and the EME BUTTONS configuration. Like the Project, they must be explicitly saved by the user to retain any changes.

Panel Description and Features Overview

Encoder:

A rotary encoder is used to adjust parameters or navigate through menus. Press the encoder to navigate menus, activate functions or activate alternative behaviors: like CV fine/coarse (while editing CV in the CV step edition mode) or toggle between CV PROB RANGE and CV PROB RANGE OFFSET (in the CV PROB Range edition mode)

MicroSD card reader:

The microSD card reader is used to load and save the different projects, configurations and default states. It also stores the default tuning for the CV outputs.

 When you receive your Eloquencer **it is important to do a backup of the following tuning files:**

- def_tune.elo
- current_tune.elo
- cv_in_tune.elo


A copy of the microSD card can be made in order to back up the information, or different SD cards can be used to have different sets. If you want to use another microSD card you will have to copy the following tuning and configuration files:


- def_tune.elo
- current_tune.elo
- cv_in_tune.elo
- global_config.elo
- global_config_2.elo
- global_config_2.elo
- (and *.eme files if you have the EME)

CV Inputs 1 & 2:

Two assignable CV Inputs can be used to control step parameters including their probabilities, track shifting, mutes or fills.

On the back of the PCB there are two physical switches that can be used to adjust the input voltage range of the CV inputs (-5V/+5V (down) or 0/10V (up)).

 *Note: It is important to match this hardware setting with the software configuration (Options > CV 1 assign > CV IN range : -/+5V or 0/10V) for the correct behaviour of the CV inputs.*

 *Note: If you own a first batch unit and you don't have an indicative sticker just set the switches down for -5/+5V. and up for 0/10V.*

Reset Input:

This resets all track sequences to the first pattern step synchronously, or works as a RUN signal to play and stop the sequence.

Clock input:

For external clock signals. The input can be divided or multiplied.

Aux Output:

An auxiliary trigger/gate output that can be configured with different functionalities, e.g. accent out, end of cycle (EOC) or reset external sequencers, RUN...

Play / Stop button:

Used to stop and play the sequencer. When STOP is pressed all the playheads will move to the first step of the current pattern.

Clock Output:

Used to send the internal clock signal. It can be configured to output multiplications or divisions of the internal clock. The highest resolution (24 PPQN) may become unstable when combined with fast tempos and frequent parameter changes. To reduce instability, the OLED screen lowers its refresh rate when 24 PPQN is selected.

Step Edit Buttons:

These buttons are used to set the different step or track parameters. Each parameter has different editing layers that can be reached by pressing the button repeatedly.

The adjustable parameters are :

CV: CV value (red), CV Variation Probability (green), CV Variation Probability range (orange)

Gate: Gate and Tie (red), Gate Probability (green)

Gate Length: Gate Length value (red), Gate Length Variation Probability (green), Gate Length Variation Probability range (orange)

Ratcheting: Ratcheting value (red), Ratcheting Probability (green), Ratcheting Variation Probability (orange).

To change a parameter press and hold the button/s for the step/s you want to modify while rotating the encoder to the desired value. Additionally, press and hold a track button and rotate the rotary encoder to change all the track parameters at once.

Note: Although Step Modifiers (MOD) are step parameters like those mentioned above, they must be accessed through the MOD section [FUNC] + [MOD].

Function Button:

Used to access the various functionalities (Tempo, Shuffle, Scale... - orange coloured in the panel) of the sequencer. It works by holding the FUNC button and pressing the corresponding step button. To access the second functionality layer (Pattern, Copy, Paste...), press and hold the FUNC button and long press the corresponding step button for at least 1/2 second.

There are different shortcuts that can be activated using the function button:

- Pattern to edit change (Function + encoder)
- Fill in (Function + Track buttons)
- Mute (Function + Ratcheting + Track buttons)

Track Buttons:

Used to select which track to edit, enable or disable tracks, and assign them within different modes and functionalities. It is also used to switch between banks in **Pattern**, **Song**, and **Project** modes.

In **LIVE REC** mode, holding a **Track** button for more than **0.5 seconds** deletes the corresponding track. Holding it for more than **2 seconds** while in a **Song Part** or **Pattern Chain** deletes the track along with its related patterns.

Trigger / Gate output:

Gate outputs for each of the 8 tracks. LOW 0 Volts / HIGH 8 Volts

CV outputs:

1V/Oct CV output for each of the 8 tracks, 0/10V range. 12 bits precision (4096 stages)

Step buttons:

Used to activate or modify steps, to choose modes, or to choose start and end points for each track, among other things.

Press the step buttons in GATE mode to activate/deactivate gates. In the other step edit modes, hold a step button to modify the corresponding step parameters with the encoder. The step buttons can also activate or deactivate gates in other modes if you press them for less than 1/2 second.

In **LIVE REC** mode: In **GATE REC** mode, **Step Buttons 1–8** can be used to record gate events. In **CV KEY REC** or **FREE PLAY** mode, the step buttons function as a piano keyboard, allowing you to enter both **CV** and **Gate** values.

Used to display menus, parameter values and configurations of the different modes.

LED Matrix:

It displays the gate state for each of the 16 steps of each track. It also displays the current step for each track. Depending on the state of song mode this screen will have a different behavior as follows:

Song Mode Active / LIVE REC active: If we are in Song Mode and LIVE REC mode it will show the pattern in play. If we are in any other mode but song is active, it will show the pattern to be edited.

Song Mode inactive: It will show the pattern in play and the pattern to be edited (which in this case is the same thing).

Step Edit Modes

There are 4 Step Edit Modes:

CV, GATE, GATE LENGTH and RATCHETING

These editing modes allow us to edit single steps, groups of steps or edit all the steps in a track at the same time. Each of these modes have additional layers to control probability and probability range.

Press an edit button once to access the first layer (value), a second time to access the second layer and a third time to access the third layer when available.

Once the mode is selected, hold the button(s) for the step(s) you want to modify and turn the encoder to reach the desired value. Release the step(s) button(s) when the value is selected. Whenever it is needed you can change the track using the track selection buttons to edit the steps on the selected track.

Gates can be activated or deactivated in any of the step edit modes (CV, GATE, GATE LENGTH and RATCHETING) by pressing the step button for less than ½ second.

Changing all step values on a track at the same time is possible by holding the track button while moving the encoder. The procedure is the same as changing an individual step value.

In all the edit modes the OLED screen will show 16 rectangles or vertical bars, each displaying the value of the 16 steps on the current track. In the case of Gate values, active steps will appear as a filled square, and non-active steps will appear as empty squares.

Encoder “Fine” and “Coarse” Modes in CV edition mode:

Hold the step button while you rotate the encoder. If the encoder button is not pressed while it is turned, the rotary encoder will work in “Fine Edit” mode and the value will change in one step increments. When the encoder button is pressed the encoder will work in “Coarse Edit” mode and the value will change in 12 semitone increments (octaves).

Let's take a more in-depth look at each of the Step Edit modes.



Note: In this section graphics will use colors or other graphical elements that are not present in the Eloquencer display but can help to understand how the STEP EDITION mode works.

CV Edit Mode

CV

● (Red lit CV button)

In this page we set the CV V/Oct of each step. When we press any step the OLED screen will show the current note associated with the step (e.g., C4).



To change a value hold the desired step and rotate the encoder, for octave jumps press and rotate the encoder. Alternatively, you can change the entire track by holding the track button and rotating the encoder.

Modifying the CV value when the scale quantization is activated does not necessarily mean that the note pitch will change in the output, the CV output will default to the nearest note available in the selected scale.

As an example, if we go from the C3 to C#3 and we have set the scale to “octaves”, we will see the C#3 value in the OLED screen, but since we are quantizing in a scale that only has C's the note output will still be C3, since this is the nearest scale note, but if we move the encoder 8 steps to A, the output now will be C4 since A is closer to C4.

Pre-listen while stopped: The active steps can be heard by pressing the desired step button in CV step edit mode while the sequencer is paused (e.g., to write chords across multiple channels). In **[FUNC] + [OPTIONS] > Global Options > Pre-listen**, you can choose to listen to the current track, all tracks with the pressed step active, or turn it OFF.

CV Variation Probability

● (Green lit CV button)

In this mode we set the probability of a CV value to either change to a random value or remain the same. To change a value hold the desired step and rotate the encoder. Alternatively, you can change the entire track by holding the track button and rotating the encoder.

There are 8 possible probability values which means that each forward step of the encoder adds a 14.3% of variation probability increment, from 0% to 100%



The lowest value (0%) means that a CV variation will never occur. The next value (14.3%) means that there is a 1 in 7 chance of a CV variation happening. If we were to set it to 100% a CV variation will always happen.

If a CV variation occurs, the resulting note value will be within a range defined in the CV probability range.

CV Variation Range

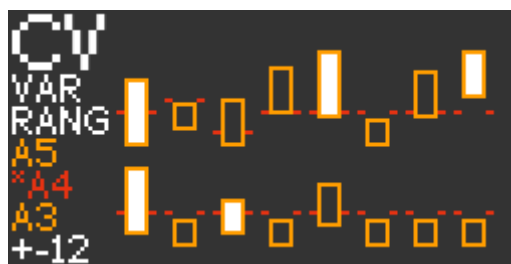
● (Orange lit CV button)

In this mode, there are two parameters to control: **CV Variation Range** and **CV Variation Offset**. Press the encoder button to toggle between these two modes.

In **CV Variation Range** we set the note range within which a CV variation will take place. Hold the desired step or track and rotate the encoder to change the range values.

The parameter has a bipolar range so an increment of “1” means that the note can change between 1 note below and 1 note above the value set in CV mode. The maximum range is +/- 64 notes.

The display will show the nominal note (highlighted in red in the figure below), along with the range limits (in orange)



In **CV Variation Offset**, we set the offset of the CV Range relative to the nominal note. This allows for an asymmetrical offset or even exceeding the nominal note. Hold the desired step or track and rotate the encoder to adjust the offset values.

The display will indicate the displacement of the range, represented in orange in the figure below.



Gate & Tie Edit Mode

Gate & Tie

● (Red lit GATE button)

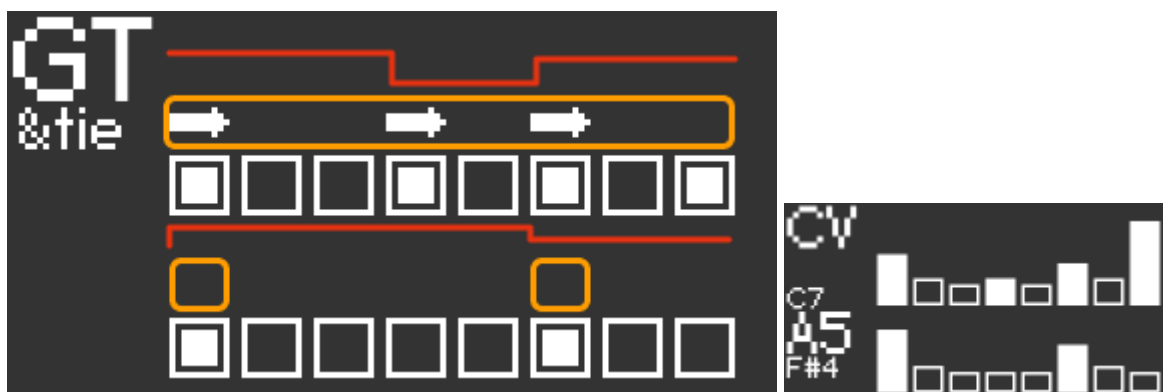
In this mode you can activate or de-activate the steps by pressing the step button with the desired track activated.

This mode can also be used to activate or deactivate “Tie’s”. Press and hold the step button to activate or deactivate a “Tie”. When you activate a “Tie”, that gate will remain open until the next non-Tied active gate and will close when the next gate closes according to the Gate Length value of that closing Gate.



The closing gate won’t change the pitch, but if there is a sequence of consecutive TIEs, the gate will remain open until a closing gate is found. The pitch will change on all consecutive tied gates except the closing one.

In the figure below, the gate duration is represented by the orange rectangle, and the CV change is represented by the red line. Note that step 8 closes the TIE but does not modify the CV.



The steps can also be activated in any of the other step edit modes by holding down a step button for less than ½ second.

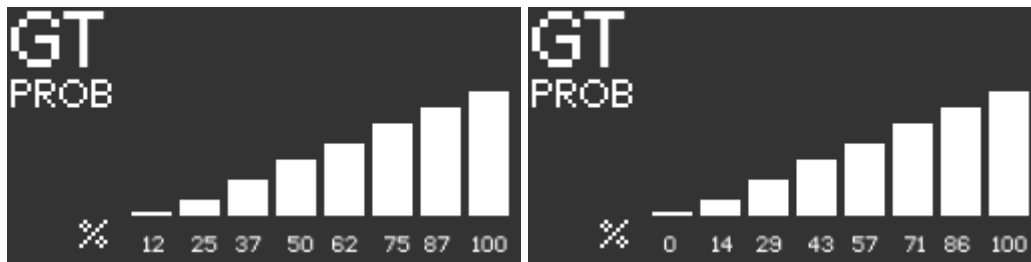
Gate Probability

● (Green lit GATE button)

In this mode we can set the step “Gate Probability”. Press and hold the desired step or track and rotate the encoder. There are 8 possible probability values which means each encoder step will increase the probability for a gate to happen by 12.5%. By default all gates are set to 100%.



There is an option to reach 0% of gate probability (find it in **[FUNC] + [OPTIONS] (HOLD) > Global Options > Step Prob. min: 0%**) Find below the two possible sets of probability:



The lowest value displayed in the OLED screen is 12.5% which means that there's a 1 in 8 chance of that Gate happening. A Gate probability of 100% means that a Gate will always be sent at the output. A setting of 100% Gate probability when a gate is deactivated results in no gate being sent to the output.

In the case of Gates there is no probability range parameter because a Gate is treated as a binary value.

Gate Length Edit Mode

Gate Length

● (Red lit GATE LEN button)

There are four different lengths of gate (1/16, 1/32, 1/64 and 1/128).

To set the Gate Length, press and hold the desired step or track button while rotating the encoder. The vertical bars in the OLED screen will reflect the chosen length (a short bar means short Gate length, long bar means long Gate Length). The OLED will also display the length as a numeric value.

Gate Length Variation Probability

● (Green lit GATE LEN button)

In this mode we set the probability of a variation in the Gate Length to happen. Press and hold the desired step or track button and rotate the encoder. There are 8 possible probability values which means each encoder step adds a 14.3% of variation probability (from 0% to 100%).



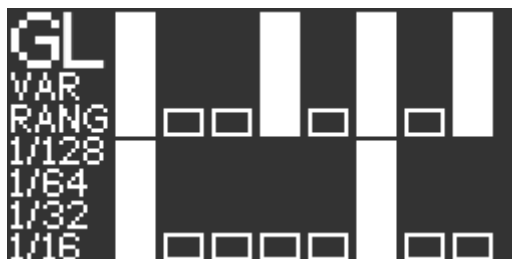
The lowest value displayed in the OLED screen is 0% which means that a Gate Length change will never happen. The next value is 14.3%. This means that there's a 1 in 7 change of a Gate Length variation happening. A setting of 100% will always trigger a variation on the Gate Length.

Gate Length Variation Range

● (Orange lit GATE LEN button)

In this mode we set the range within which a Gate Length variation will take place. Press and hold the desired step or track and rotate the encoder to change the range values.

There are 4 possible Gate Length values, so there are 3 possible range settings.



In the table below you can see all the possible variations of Gate Lengths depending on your Gate Length setting and the range.

GATE LENGTH PROBABILITY					
GL	RANGE	POSIBLE VALUES			
		1 /128	1 /64	1 /32	1 /16
1 /128	2				
	3				
	4				
1 /64	2				
	3				
	4				
1 /32	2				
	3				
	4				
1 /16	2				
	3				
	4				

The nominal Gate Length value (the one chosen in the GATE LEN mode) defines the Gate Length that will normally be output (bright grey in the table). If we set up a Probability greater than 0%, other Gate Length values will be output depending on the range value (dark and bright grey).

Depending on the Gate Length Probability value, we can give more chance for the nominal (dark grey) value to happen.

There is an option to change the Gate Length set in order to acquire narrower gates. It can be changed in **[FUNC] + [OPTIONS] (HOLD) > Global Options > Gate Len > 1/512 - 1/64 or 1/256 - 1/32 or (default) 1/128 - 1/16**

Ratcheting Edit Mode

Ratcheting

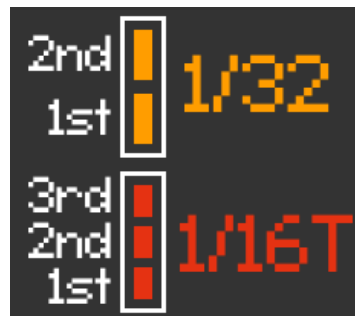
● (Red lit RATCHET button)

There are nine different types of ratcheting divided into 3 groups (no ratcheting, **duplets**, **triplets**):



To set the ratcheting type press and hold the desired step or track button while rotating the encoder. The OLED screen will display a visual representation of the chosen ratcheting type..

The following figure shows the ratcheting positions of the duplets (1/32) and the triplets (1/16T) in relation with time:



Ratcheting Probability

● (Green lit RATCHET button)

In this mode we can set the probability of a step ratcheting to happen. Press and hold the desired step or track and rotate the encoder to set the probability. There are 8 possible probability values and each encoder step will add a 14.3% of probability for a gate to happen. Step ratcheting probability is set to 100% by default.



The lowest value displayed in the OLED screen is 0%. At this value a step ratcheting will never happen. The next value, 14.3% means that there's a 1 in 7 chance of a step ratcheting to happen. A setting of 100% will always trigger a ratchet for the selected step.

Ratcheting Variation Probability

● (Orange lit RATCHET button)

In this mode we can set the probability of the selected step ratcheting type to change to another type. Press and hold the desired step or track and rotate the encoder to change the probability. There are 8 possible probability values, that means each encoder step will add a 14.3% probability of a ratcheting type to change.



The lowest value displayed in the OLED screen is 0%, this means that a variation in the Ratcheting type will never happen. The increment is 14.3%. A setting of 100% will always trigger a variation of the Ratcheting type.

Note : If the Ratcheting Probability is set to 0% the variation probability has no effect.

Secondary Modes

All the secondary parameters and modes are located in the step button area. They can be accessed using the function key. To access the first set of secondary parameters (the ones above the step buttons - TEMPO, SHUFFLE, SCALE, LIVE REC, FREEZE, REVERT...) press and hold the function button while pressing the desired button.

To access the second part of secondary modes (the ones below the second row of buttons - PATTERN, SONG, COPY, PASTE...) press and hold the function button while pressing the desired button for more than 1/2 second.

To go out of any of the secondary modes just press any of the main step edition modes.

Tempo

Choose between internal or external clock.

To select the clock source go to "Tempo", press the encoder, choose "INT" "EXT" or "MIDI CLK" and press the encoder again. This parameter is stored globally in the global configuration not in the project file.

You can change the tempo in BPM by going to "Int. Tempo", pressing the encoder, and rotating the encoder knob. Additionally the internal tempo can be modified tapping with the H track button. There is an option to change the tempo either gradually while rotating the encoder or drastically after pressing the encoder button. You can find it in **[FUNC] + [OPTIONS] (HOLD) > Global Options > Tempo resp. : Instant/Aft push**

When using an external clock the incoming clock speed will be calculated in BPM and displayed in the OLED screen. Have in mind that the displayed BPM it's not always 100% accurate. It's just a rounded integer of the incoming clock and it's meant to be used as visual feedback.

Tempo nudge: Use steps buttons 13 to 16 to adjust the tempo sync to synchronize with non-clocked sources.

Step 13 : backward coarse

Step 14 : backward fine

Step 15 : forward fine

Step 16 : forward coarse

Check the OPTIONS section to choose between two TEMPO adjustment modes: Instant (changes as you turn the encoder) or After Push (only changes after pressing the encoder).

Shuffle

Choose the shuffle amount by rotating the encoder knob.

By incrementing the shuffle value you will be adding a delay to the even steps in a pattern.

Since tracks within a pattern can have different lengths, odd and even steps can sometimes sound misplaced. If that happens, you can set track to be the Master and determine the shuffle for all tracks in a pattern. Check the OPTIONS section for info on how to do that. As we will see later, the Master track can be any one of the 8 tracks or an internal counter.

Scale

The Scale Mode is used to assign a root and a scale to any of the 8 Scale groups. These Scale groups can be assigned to any of the patterns in a project. Check "Pattern Mode" to learn how to assign a scale to a pattern.

Choose the group you want to modify, press the encoder and rotate the encoder to modify the root, press the encoder again to modify the scale, and finally press the encoder again to confirm.

In scale mode the step buttons will act like a single octave piano keyboard. The notes belonging to the selected scale will be lit in bright orange in the step buttons area. The rest of the notes will be a dimmed orange.



Note: The printed rectangles between the two rows of buttons are there to aid in identifying which steps act as the white keys and which ones act as the black keys.

There are 8 user scales where you can decide which notes to add. Add or remove notes from the user scales by pressing the corresponding step button.

There are some elements in the scale list (octaves, triads...) that are not strictly scales but since they might be useful they are included in the list nevertheless.

There is an option to override quantization for specific track(s). Check the OPTIONS section for details on how to do this.

Step Mode

The step mode is used to decide the behavior of each track of the step sequencer (backward, forward, ping pong, random, repetition, and division) A different step mode can be applied to each track.

Step Mod Division (DIV) can be applied independently from other Step Modes, so you can combine Step Mode DIV with any other mode.

Once the Step Mode is selected you will have to choose which tracks you want to modify. By default, each time after power on, this mode will have all the tracks selected. Deselect the tracks you don't want to be affected and turn the rotary encoder to change between **STEP MODE** and **STEP MODE DIV**. Press the encoder to choose any of these modes.

In **STEP MODE** rotate the encoder to choose any of the modes, in the Step Repetition Mode you can choose the number of repetitions per step. Press the encoder to select the number of repetitions and press the encoder again to confirm.

In **STEP MODE DIV** you can choose the number of divisions per step. Press the encoder to select the number of divisions and press the encoder again to confirm.

Below is a list of all possible step modes alongside some examples. The examples given try to describe the behaviour on a 16 step track.

- ☐ FWD Forward 1-2-3...14-15-16-1-2-3...
- ☐ BCKW Backward 16-15-14...3-2-1-16-15-14...
- ☐ PEND Pendulum 1-2-3..14-15-16-16-15-14...3-2-1-1-2-3...

*For the PEND mode to finish its cycle, in the case of a 16 step pattern, the Master track needs to be 32 steps or longer. We can also unlink the track from the Master track reset for the cycle to finish (check **OPTIONS** / Reset track config).*

- ☐ RAND Random 4-9-2-11-7-12-12-4-15-8-16...
- ☐ REP X Step repetition (Rep = 3) 1,1,1,2,2,2,3,3,3,4,4,4,5,5,5,6,6,6...

(same requirement as PEND relating to the Master Track)

- ❑ DIV X Clock Division 1–2–3...14-15-16-1-2-3... (with the clock divided X times)

(same requirement as PEND relating to the Master Track)

Pattern/Track Shift

When creating patterns, especially if you do it live, it's quite common to end up with a great beat or melody only to realise your downbeat is displaced by a few steps. So this mode will allow you to shift the pattern to your originally intended position. Alternatively this mode can be used as a performance tool by shifting patterns just to obtain interesting variations on the fly.

Once you are into the pattern shift mode turn the encoder to shift the sequence. By default all the tracks will be shifted. In case you just want to shift a track or a group of tracks, deselect the unwanted tracks, and proceed as mentioned before, turning the encoder to shift the track(s).

Track Length

The length of each track can be defined by using a start and end point to define the portion of the track that will be played.

For example, press and hold Step 2 followed by Step 5: the length of the track will be 4 and that track will keep playing these 4 steps in loop until you change the track length or you change the pattern.

These track length values are stored for each track and pattern, so every time you change the pattern, the previous track length values will still be there. As with other parameters or values in the sequence these values are stored in volatile memory so they are only stored in the microSD card once you save the project.

Random

A pattern or a part of a pattern can be randomized in order to create a different sequence.

To randomize a sequence, navigate to this mode and choose the desired random mode. Deactivate the things you don't want to randomize using the corresponding buttons (Tracks, CV, Gate, Gate Length, Ratcheting, Track length, step mode, scale...) and press the encoder again to randomize.

There are two different types of random:

RND 1 Layer:

This means that the Random will take place over the first layer of the chosen step parameters. If we have chosen CV, Gate, Gate Length and Ratcheting it will only affect the nominal values, not the Probability or range values. The random values will be within the range defined in 'Range'.

RND 3 Layers:

This means that the Random will take place over all the layers of the chosen step parameters. If we have chosen CV, Gate, Gate Length and Ratcheting random will be on Nominal values, Probability and Range values. The random values will be within the range defined in 'Range'.

Range - Use the two parameters to define the upper and lower limits of the randomization. It can be defined in semitones.

Fill

FILL is a performance oriented tool. While in this mode you can hold the track buttons to activate all steps in the corresponding tracks, momentarily overriding all Gate and Gate probability settings. You can fill all tracks simultaneously by holding all track buttons at the same time.

Fill can also be accessed using the shortcut “Function + Track”.

Live Rec

This mode allows you to introduce gates and CVs during playback.

If this mode is used while **SONG** or **PART** is active, the gates/notes will be recorded along different patterns of the song/part. (please note that if your part or song uses the same pattern more than one time, the recorded information will be overdubbed).

In **LIVE REC** mode, holding a **Track** button for more than **0.5 seconds** deletes the corresponding track. Holding it for more than **2 seconds** while in a **Song Part** or **Pattern Chain** deletes the track along with its related patterns.

There are three different modes:

Gates Mode:

This mode is useful for introducing rhythmic patterns on the fly on all 8 tracks at the same time. Similarly to how you would record a beat by using the pads on an MPC or similar.

To introduce gates on the fly, press one or more track buttons while the sequencer is running. The corresponding gates will be recorded on the playhead position in each of the corresponding tracks. Steps from 1 to 8 can be used to introduce gates too.

You can quickly delete the content of a track by holding down the corresponding track button.

CV Mode:

This mode is designed for recording melodies, harmonies, CV values, and gates.

When entering **CV Live Rec mode**, a **chromatic keyboard** appears in the steps area. The active scale notes are displayed with higher brightness.

Selecting Tracks

- ☐ Choose the track(s) where you want to record a melody, harmony, or CV changes.
- ☐ If only **one track** is selected, it operates in **mono mode**.
- ☐ If **multiple tracks** are selected, it works in **poly mode**.

Playing Notes & Gates

- ☐ Press the desired note at the desired moment. Notes and gates will be placed at the **closest gate timing**.
- ☐ Adjust the **octave** using the green buttons at both ends of the keyboard.
- ☐ Add or remove the **recording tracks** at any moment by pressing the corresponding track button.
- ☐ Quickly **delete a track's content** by holding down its track button.

Mono Mode

In **mono mode**, only one track is recorded. The behavior depends on two parameters found in the [OPTIONS - TIEs Record](#) section:

TIEs Record: ON/OFF

☐ **TIEs Record OFF:**

- Only the **gate rise** (note press) is recorded.
- The **gate fall** (note release) is only recorded if it happens within the same step.
- If the release happens beyond the step where the note was pressed, the gate is recorded as **1/16 (maximum step length)**.

☐ **TIEs Record ON:**

- The gate remains **high until the key is released**, creating **TIEs**.
- This allows overlapping notes, as the gate stays active until the last note is released.

Mono REC Retrigger: ON/OFF

- ☐ This parameter works **in combination with TIEs Record**. It controls whether a new gate is placed when overlapping notes.

Example 1: Creating an overlapping Mono Sequence

- ☐ Goal: Hold a **root note** while playing overlapping higher notes. When the higher note is released, the **root note resumes**.
- ☐ Setup:
 - **TIEs Record: ON**
 - **Mono REC Retrigger: OFF**
- ☐ Result:
 - The **GATE output stays high** until the last note is released.
 - Ideal for cases where triggering is only needed at the first note press.

Example 2: Recording a Fast Arpeggio

- ☐ Goal: Avoid unwanted note overlaps and ensure each new note is recorded as a separate step.
- ☐ Setup:
 - **TIEs Record: OFF**
 - **Mono REC Retrigger: ON**
- ☐ Result:
 - Each note is recorded individually, with a **distinct gate rise and fall** at every step.

Free Play Mode:

Same as CV mode but without recording. It will send non-time quantized gates and scale quantized CVs (a gate will be open as long as you keep the button pressed). Once you choose a track, the gates recorded in that track will no longer take effect and that track will be only reproducing the notes played on the small keyboard.

MIDI REC Mode:

Only available when EME is connected, see section [EME - MIDI IN Configuration - KEY REC](#) to know about Channels and other configurations.

CV in REC Mode:

When this mode is selected, the CV inputs can be used to record time-quantized gates and quantized CVs.

If a trigger is received at **CV IN 1**, a step will be recorded at the playhead position, with a CV value corresponding to the voltage present at **CV IN 2** at that moment.

Mute

As the name suggests, this mode mutes tracks. Select the track button to mute it. Red button means muted, no light means not muted.

LFO (Stepped)

It's important to note that this is not a linear continuous LFO, this Stepped LFO can change the CV out value every 1/32 pattern.

Any of the tracks can be configured to work in Stepped LFO mode. When you use the CV out as LFO the gate output is still sending the existing gates in the track so you can still use the gate output independently of the LFO

There are 5 different types of Stepped LFO: SAW, RAMP, TRIANGLE, SQUARE and RANDOM. The LFO period can be defined in patterns and steps. Some types have a minimal duration of 2 steps (SAW, RAMP, TRIANGLE), while SQUARE has a minimal duration of 1 step and RANDOM has a minimal duration of 1/2 step. The maximum duration for all types is 32 patterns.

The LFO amplitude can be adjusted from 0 to 9V, and we can also set an offset from -9V to 9V. That doesn't mean that the CV output can go below 0 Volts. Any value below 0 will be limited at 0V, any value above 9V will be limited to 9V.

MOD - Step Modifiers

This section can be considered as one of the upper step edition modes. Each step can be assigned with an event (EVNT), modifier type (MOD) and, sometimes, a value (VAL). It is used to establish relation between tracks, relation between steps or create long cycles with only one pattern.

An EVENT is something that can occur or not depending on some specific conditions. Any STEP that has the arrow in the MOD section has the potential to be a positive EVENT

For example, a 1:2 EVENT means that the EVENT will be positive in the first round, negative in the 2nd round, positive in the 3rd, negative in the forth...

Additionally, even though it is not in the MOD section any STEP that has a GATE PROBABILITY different from 100% can be considered as a potential EVENT, for example you have a STEP with a GATE PROBABILITY of 50%, so 50% of times you will have a positive EVENT and 50% you will have a negative EVENT

Let's see which EVENTS are available:


- ☐ OFF: There is no step modifier
- ☐ PREV (previous event): if the previous event in the track, not necessarily the previous step, has taken place, this event will be positive. If the previous event was negative this event will be negative.
- ☐ NPREV (not previous event): if the previous event in the track, not necessarily the previous step, has been negative this event will be positive, and vice versa.
- ☐ PTRK (previous track event) : if the previous event in the previous track, not necessarily the current step, has taken place, this event will be positive, and the opposite. It doesn't apply to track A
- ☐ NPTK (not previous track event) : if the previous event in the previous track has been negative, this event will be positive, and vice versa. It doesn't apply to track A
- ☐ 1ST (first) : Only the first time we analyze the condition of this event it will take place (until we reset the sequence, with play/stop)

- ❑ A:B: On a B times loop the event will be positive on the A time.
ex: 2:5 : the event will be positive the 2nd time on a 5 times loop
note: 1:1 means always
- ❑ (out of MOD section) If the last STEP with GATE PROBABILITY different from 100% occurs, it is considered as a positive event. If the last STEP with GATE PROBABILITY different from 100% doesn't occur, it is considered as a negative event.

The MODIFIER TYPE (MOD) is the action that is done when an EVENT has been positive. The different MODIFIER TYPEs are:

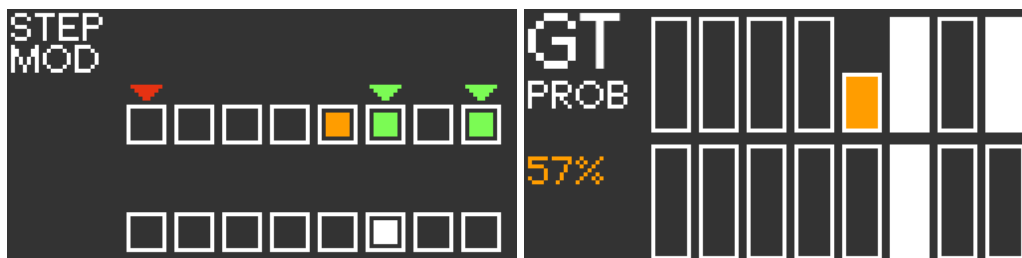
- ❑ GATE : If the current EVENT is positive there will be a GATE, if the current EVENT is negative there will be no GATE
- ❑ MUTE: The opposite of GATE: if the current EVENT is positive there will be no GATE, if the current EVENT is negative there will be GATE
- ❑ TRAN: If the current event is positive TRANSPOSE the amount (in semitones) in VAL (value). Offset could be positive or negative.
- ❑ ADD: If the current event is positive add the previous track CV + offset (VAL) to the current CV. Offset could be positive or negative.

Let's see some examples:

 **NOTE:** In this section we will use colors, non-filled squares or other graphical elements that are not present in the Eloquencer display but can help to understand how the MOD works.

EXAMPLE 1 (GATE PROBABILITY, PRE - Previous Step):

- STEP 1 (red) has a step modifier configured, but the gate is not active, so it can't be an EVENT, neither positive or negative
- STEP 5 (orange) does not have an EVENT, but it has a GATE PROB of 57% so it is considered an EVENT, depending on the result of randomness it will be a positive or a negative event



- STEP 6 and STEP 8 have a PREV EVENT, and have a MOD TYPE: GATE. That means that STEP 6 will depend on the STEP 5 probability, and STEP 8 will depend on the STEP 6. As both steps, 6 and 8, are configured as MOD TYPE: GATE if we have a GATE in step 5 (generated by randomness) we will have a GATE in the others (filled squares). If we don't have a GATE in step 5 (non-filled orange square) we won't have a GATE in the others (non-filled green squares) Find below:



EXAMPLE 2 (GATE PROBABILITY, NPRE - Not Previous Step):

- Let's take the same conditions on Example 1 but let's change MOD TYPE on step 6 and 8 to NPRE.



- In this case:
 - If the probability event in step 5 is positive we will have a gate on step 5, the NPRE event in step 6 reads the previous event in step 6, and, as it is positive, the event on step 6 is negative, so we won't have a gate. Step 8 reads the previous event on step 6, and, as it has been negative, step 8 event will be positive so we will have a gate.
 - If the probability event in step 5 is negative we won't have a gate on step 5, the NPRE event in step 6 reads the previous event in step 6, and as it is negative the event on step 6 is positive, so we will have a gate. Step 8 reads the previous event on step 6, and as it has been positive, step 8 event will be negative and we won't have a gate.

EXAMPLE 3 (PTRK - Previous Track):

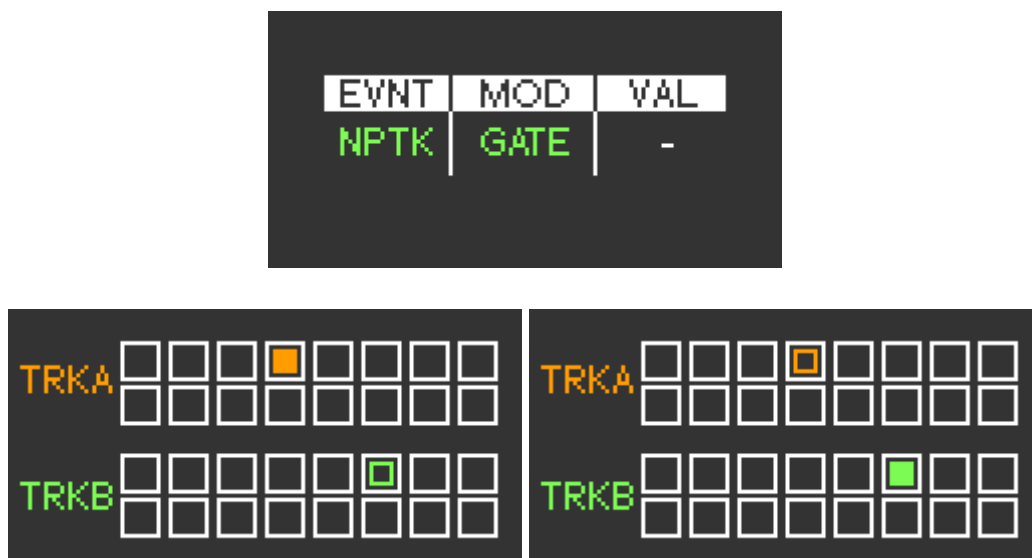
- In this case we are analyzing the interaction between two tracks: Track A has an event on step 4, and Track B has an event on step 6 with a PTRK (previous track) event selection.



- When we reach step 6 on Track B we check if the last EVENT on the previous Track has been positive or negative (not necessarily the current or the previous step). If it is positive our step 6 Event will be positive, and in this particular case we will have a Gate. If it is negative, our step 6 Event will be negative, and in this particular case we won't have a Gate.

EXAMPLE 4 (NPTK - Not Previous Track)

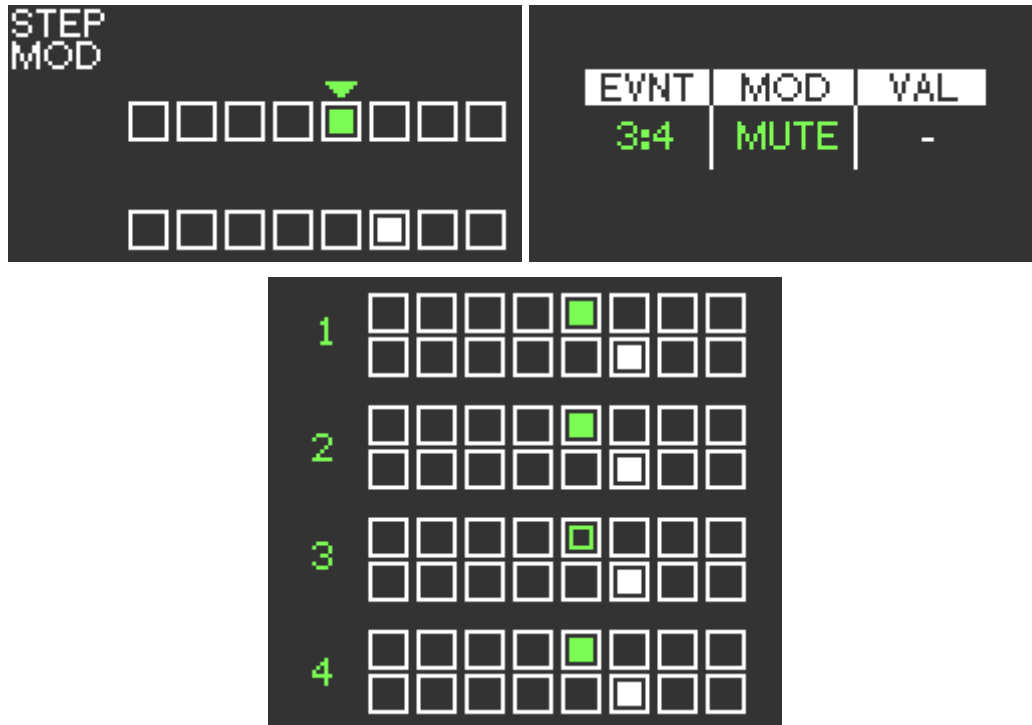
- Again, we are analyzing the interaction between two tracks but in this case Track B has an event on step 6 with a NPTK (Not Previous Track) event selection.



- In this case the Event on Step 6 will have the opposite state of Step 4 Event on Track A

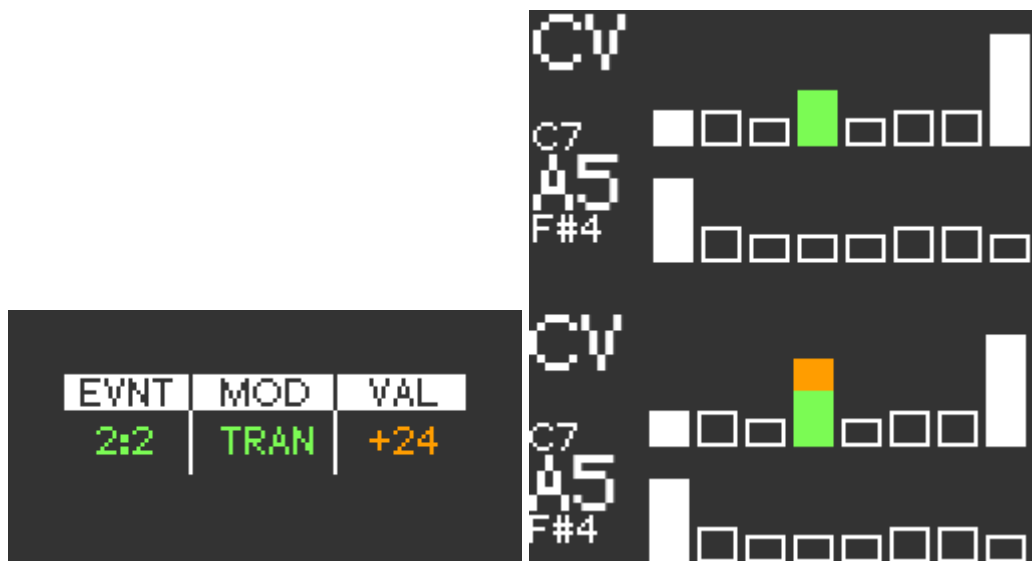
EXAMPLE 5 (A:B , MUTE)

- In this example we use the A:B to create long cycles with a single pattern, and the MOD type mute to mute a Gate. Step 5 is configured with EVENT TYPE 3:4, that means that on a loop of 4 repetitions, the event will be positive on the 3th repetition. So in this case we will have a Gate muted on the 3rd repetition



EXAMPLE 6 (A:B, TRAN - Transpose)

- In this example we will use MOD Type TRAN to transpose a step on an A:B cycle. On the 2nd repetition on a two cycle loop we will add (or subtract) the amount on VAL (value). the graphic shows the first iteration with the nominal CV value (in green) , and the 2nd loop iteration with the nominal value (green) plus the additional transpose value (orange)

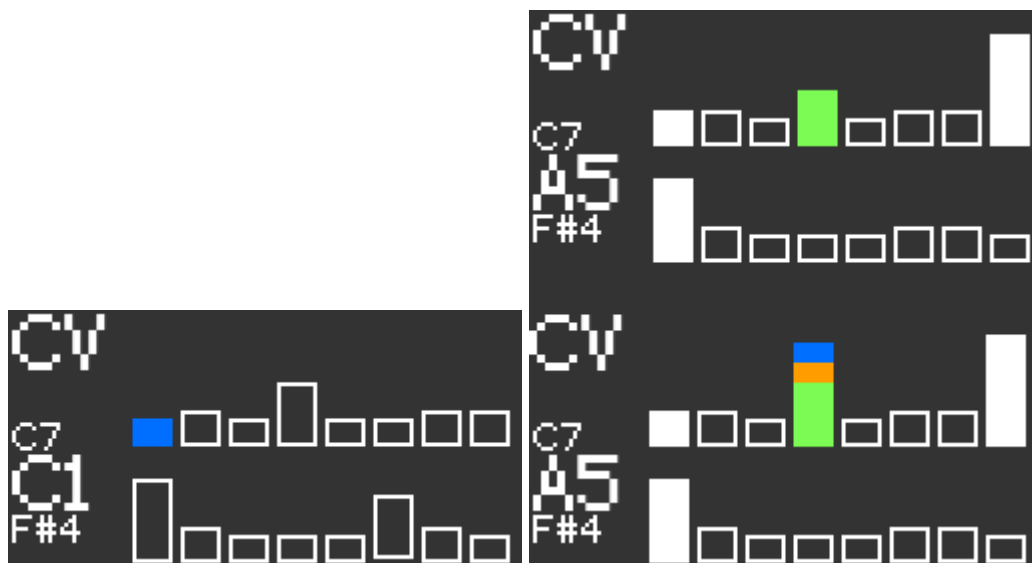


EXAMPLE 7 (A:B , ADD - Previous Track CV Add)

- In this example we will use MOD Type ADD to add the value of the previous track and the offset value (VAL) to a step on an A:B cycle. Track B event will add the previous Track CV (Track A) First graphics show Track B configuration, step 4 has an ADD MOD type, on a 2:2 cycle, with an offset value of +12



- The resulting CV on Track B step 4 will be (on the 2nd cycle iteration):
 - Nominal CV value of step 4 (A5) (green)
 - Current value of Track A (C1) (blue)
 - MOD VAL offset (+12) (orange)
 - Result : $A5 + 12(C1) + 12 = A7$



💡 TIP - Arpeggio follows bass (Moroder's I feel love)

- Let's imagine we have a bass on track A which is divided by 16 (STEP MODE DIV/16 / track reset off), so we have a different bass note on every bar. On track B we have a quick arpeggio (not divided). We want the arpeggio to follow the bass root note so we configure all Track B arpeggio steps as follows:

EVNT	MOD	VAL
1:1	ADD	+12

- 1:1 means that we will always ADD the current CV of the previous Track + the offset to the nominal value of all arpeggio notes

Aux

An auxiliary trigger/gate output that can be configured with different functionalities, e.g. accent out, end of cycle (EOC) or reset external sequencers...

Gate: You can output gates using a 16 step sequencer (works like an auxiliary track independent from the other 8 tracks). Can be used for e.g. for accent out, end of cycle (EOC), alternative clock...

Trigg reset on stop: Outputs a gate when the sequencer is stopped by using the start/stop button.

Start HIGH-Stop LOW: Outputs a gate that stays open until the sequencer is stopped by using the start/stop button.

Clock

Here we can configure the following:

Clock In Mult

(x2 x4 x8 /2 /3 /4 /5 /6 /7 /8 /9 /10 /11 /12 /13 /14 /15 /16)

Clock Out Mult

(x2 /2 /4 /8 /16 / 32)

Master Track:

This is an important parameter in the sequencer. The Master Track defines when we reach the end of the pattern. The Master Track can be configured as any of the tracks or as an internal counter that can go from 1 to 64 steps.

When the Master Track reaches its end, it will send a Reset order to the other tracks to go to their firsts steps, unless one of these tracks is de-attached from Master Track orders (Options>Reset track config).

Pattern changes, song and song parts behaviours will be affected by how you setup this parameter. A pattern change will always take place when the master track reaches its end. For example if we choose that our Master Track is Track A, and we create a song part using patterns that have different track lengths, the

song part length will be defined by the length of all “A” sections of the different patterns we have chosen to create the song part.

Patt. Length:

Here we chose the pattern length if we have chosen the internal counter as the Master track (“int.”).

Freeze / Revert

Freeze / Revert is a performance oriented tool. Freeze is used to take a snapshot of the current pattern. Once this snapshot is done we can modify all the pattern parameters and when we press “Revert” the system will revert to the frozen pattern.

To freeze a pattern state, press and hold function + Freeze for at least ½ second

To get a frozen state back, press and hold function + Revert for at least ½ second

You can only revert a pattern while you are in the previously frozen pattern. A frozen pattern is stored in memory until a new pattern is frozen.

Options

The **Options** section is divided into two categories: **Project Options** and **Global Options**.

- ☐ **Project Options:** These settings are stored within the **Project structure** and are saved each time the **Project** is saved.
- ☐ **Global Options:** These settings apply to the entire system and are saved immediately whenever an option is changed.


PROJECT OPTIONS

CV IN assigns 1 & 2

Choose the parameters you want to assign to the CV ins and choose the tracks that this parameter will affect. Each assignment will remember which track it was previously affecting. For example if you choose that CV 1 assign is CV ADD for tracks 1 and 2, and then you choose CV 1 assign is MUTE BIN for tracks 3 and 4, when you go back and assign CV ADD again, the track assign will be still 1 and 2.

It's very important to remember to assign tracks, if you don't assign any track to a CV INPUT assign, the CV input won't work.

It is also important to observe the kind of signal we are sending (unipolar or bipolar) to the CV input and match it with the hardware back switch (0/10V -5/+5V) and the software settings (Options > CV 1 assign > **CV IN range : -/+5V or 0/10V**).

 *Note: if you have a first batch eloquencer (firmware version 1.0.1) it is important to tune the eloquencer CV inputs (Options > **Calibrate CV IN**) and follow the on screen instructions. This tuning will allow the incoming CV IN signals to be interpreted as a V/oct signal. Bear in mind that these CV inputs were not originally intended for pitch tracking and some unexpected behaviour can happen in some occasions like some notes jumping to the contiguous semitone.*

CV ADD:

The voltage of CV INPUT will be added to the existing CV value for the current Step. This can be used, for example, to transpose a melody line using an external CV.

CV Q:

(CV Quantized). The voltage of the CV INPUT will be quantized and sent to the chosen tracks CV OUTPUTS. Regardless of what the current CV value of that step is, the CV INPUT will be expressed.

CVP:

The voltage of the CV INPUT will be added to the existing CV Variation Probability value in the current Step for the assigned tracks.

GP:

The voltage of the CV INPUT will define the Gate Probability value in the current Step for the assigned tracks.

GL:

The voltage of the CV INPUT will define the Gate Length value in the current Step for the assigned tracks.

GLP:

The voltage of the CV INPUT will be added to the existing GL Probability value in the current Step for the assigned tracks.

R:

The voltage of the CV INPUT will define the Ratcheting value in the current Step for the assigned tracks.

RP:

The voltage of the CV INPUT will be the RATCHETING Probability value in the current Step for the assigned tracks.

PATTERN SHIFT:

The voltage received at the CV INPUT determines the pattern shift position.

Some things have to be taken into consideration when shifting patterns from the CV inputs:

- ☐ When used while in song mode, a pattern shift will only affect the pattern that is being edited, not the pattern in play.
- ☐ The pattern shift position is relative to the voltage value in the CV Input. If the cable is removed the track shift will be reverted to its original position.
- ☐ If we change the pattern while CV Input is changing the track shift, the last track shifting value will be the one that will remain in that pattern. This last consideration is important to keep in mind since it can modify your patterns in a destructive way.



We recommend that you save your work before playing with the CV in Pattern Shifting, it could be destructive

MUTE ONE:

Depending on the voltage of the CV INPUT it will mute one of the assigned tracks.

MUTE BIN:

The voltage of the CV INPUT will be transformed into a digital binary code and will be used to MUTE the assigned tracks. It is very similar to a clock divider; Track-A changes fast, Track-H changes slower.

MUTE TRKs:

If the voltage value is over 50% of the voltage range it will MUTE the assigned tracks.

FILL ONE:

Depending on the voltage of the CV INPUT it will FILL one of the assigned tracks.

FILL BIN

The voltage of the CV INPUT will be transformed into a digital binary code and will be used to FILL the relevant tracks. It is very similar to a clock divider; Track-A changes fast, Track-H changes slower.

FILL TRKs

If the voltage value is over 50% of the voltage range it will FILL the assigned tracks.

RST LFO

When receiving a trigger or a gate it will reset the stepped LFO

PREV PATTERN

When receiving a trigger or a gate, the sequencer will switch to the **previous pattern** (*at the next step or at the end of the pattern, depending on the **Patt Chng** configuration found in **OPTIONS***).

NEXT PATTERN

When receiving a trigger or a gate, the sequencer will switch to the **next pattern** (*at the next step or at the end of the pattern, depending on the **Patt Chng** configuration found in **OPTIONS***).

PREV PART

When receiving a trigger or a gate, the sequencer will switch to the **previous part** (*at the end of the pattern or the end of the part, depending on the **Part Chng** configuration found in **OPTIONS***).

NEXT PART

When receiving a trigger or a gate, the sequencer will switch to the **next part** (*at the end of the pattern or the end of the part, depending on the **Part Chng** configuration found in **OPTIONS***).

PATT CHANGE

The **next pattern** to be played is determined by the **CV INPUT voltage**. A **scaler** can be used to adjust the voltage range.

DIV/x

The **STEP MODE DIV/x** amount is determined by the CV INPUT voltage for the selected tracks.

STEP MODE

The **STEP MODE** is determined by the CV INPUT voltage for the selected tracks.

TEMPO (INT)

The CV INPUT voltage determines the **internal tempo**.

CV - Gate Link

This parameter allows you to **detach the CV output from the Gates** in the specified tracks.

- ☐ If **linked (track button is lit)**, the CV output will only change when a **Gate** is active.
- ☐ If **unlinked (track button is off)**, the CV value will change at **each step**, independently of the Gate state.

Reset Track Config.

Use this option to **detach tracks** from the **Master track**, so they are not reset when the Master track reaches its end.

- ☐ Select "**Reset Track Config.**" and press the encoder to access the configuration screen.
- ☐ Use the **track buttons** to choose which tracks to **detach/attach**.

GL Rel. to DIV

Use this option to decide whether **Gate Lengths** are **relative** to the **STEP MODE DIV/x** division. If **OFF**, Gate lengths are based on a **1/16th** division, regardless of the **DIV/x** value.

Patt Change

Use this option to determine when a pattern change takes place:

- ☐ '**Patt Chng: End Patt**' → The pattern must finish before switching to the **next pattern**.
- ☐ '**Patt Chng: Step**' → The pattern changes immediately at the **next step**.

Part Change

When the SONG: PARTS mode is active use this option to determine when a part change takes place:

- ☐ '**Part Chng: End Patt**' → The part changes at the **end of the current pattern**.
- ☐ '**Part Chng: End Part**' → The part changes at the **end of the current part**.

Quantization Override

Use this option to **disable pitch quantization** for specific tracks.

To configure it, select '**Quantization Override**', press the **encoder**, and use the **track buttons** to toggle quantization.

- ☐ **Lit Track LED** → Quantization is **deactivated**.
- ☐ **Unlit Track LED** → Quantization is **active**.

Ratchets in Random

Use this option to select which **ratchets** can appear when **RATCHET VARIATION PROBABILITY** is triggered.

To configure, select '**Ratchets in Random**', press the **encoder**, and use the **encoder** to enable or disable specific ratchets.

MUTE Config

When **CV and Gate are unlinked** (meaning they work independently and CV does not require a Gate to change), this option determines how **MUTE** behaves:

- ☐ Mute affects both **Gate and CV**.
- ☐ Mute affects **only Gate**.

GLOBAL OPTIONS

Tune

Every unit comes with a default CV-out tuning that has been set in-factory with a precision voltmeter. This tuning is stored in the microSD card so it would be a good idea to do a backup copy of the two files related with CV OUT tuning ("current_tune.elo" & "default_tune.elo")

Additionally there is the possibility to create a user tuning.

This tuning has to be done using a precision voltmeter (at least 1mV precision), following the instructions on the screen, moving the encoder to reach the value displayed in Volts.

CV in tune

This tuning is necessary if you want to control the CV IN assign of CV add or CV Q using a V/oct signal. For example you want to transpose a sequence using CV add and a keyboard connected to the CV input.

Have in mind that these CV inputs were not originally intended for this purpose and some unexpected behaviour can happen in some occasions like some notes jumping to the contiguous semitone.

1. Go to Options > Tune > **CV IN Tune**
2. Connect CV OUT A with CV IN 1
3. Connect CV OUT E with CV IN 2
4. Put the physical "CV in range" switch to 10V (up). If you own a first batch unit and you don't have an indicative sticker just set the switches up for 10V.
5. press the encoder.
6. Put the physical "CV in range" switch to 5V (down). If you own a first batch unit and you don't have an indicative sticker just set the switches down for -5/+5V.
7. press the encoder and you are done.

Zero gap tune

This tuning procedure helps the system to know what is 0 Volts when no cable is plugged in the CV inputs

- Put the physical switch (PCB rear upper left) at 5 V (down). If you own a first batch unit and you don't have an indicative sticker just set the switches down for -5/+5V.
- Disconnect any cables from CV IN 1 and CV IN 2.
- Go to Options > Tune > **Zero gap tune**

Rotary dir.

Use this option to define the encoder direction: normal or goofy.

Reset in

Use this option to define the Reset input behavior. There are 4 different type of Reset in configurations:

Rst trigger:

Each time a trigger is received the tracks will start playing from the first step. It can be used to slave the Eloquencer to a sequencer that sends a trigger when stop is pressed.

Reset LOW:

Each time the reset signal goes down the tracks will start playing from the first step. It can be used to slave the Eloquencer to a sequencer that sends a HIGH signal when it is playing and LOW signal when it is stopped.

P/S trigger:

Each time a trigger is received the eloquencer will change its state from start to stop, or from stop to start.

PlayH/StopL:

The eloquencer will be in Play mode as long as the Reset input remains HIGH. The sequencer will remain stopped if this configuration is active and there's nothing connected in the Reset input.

Whole song reset

This configuration allows resetting chains, parts or a song when an external Reset is received (instead of just resetting the currently playing pattern)

Matrix dimm

This configuration allows choosing the Matrix LED intensity. Higher values mean higher power consumption.

Gate Len

This configuration allows changing the global setting to change the default set of gate lengths. There are 3 different possibilities:

1/128 - 1/64 - 1/32 - 1/16

1/256 - 1/128 - 1/64 - 1/32

1/512 - 1/256 - 1/128 - 1/64

TIEs record

When using LIVE REC modes

- ☐ **TIEs Record OFF:**
 - Only the gate rise (note press) is recorded.
 - The gate fall (note release) is only recorded if it happens within the same step.
 - If the release happens beyond the step where the note was pressed, the gate is recorded as 1/16 (maximum step length).
- ☐ **TIEs Record ON:**
 - The gate remains high until the key is released, creating TIEs.
 - This allows overlapping notes, as the gate stays active until the last note is released.

Pre-listen

While being in pause we can press a step and rise the gate and change the CV accordingly to that step. We have 3 configurations:

- ☐ **'Pre-listen: OFF'** : nothing happens
- ☐ **'Pre-listen: current track'** : we only rise an active gate and change CV from the selected track
- ☐ **'Pre-listen: all tracks'** : we rise all active gates and CVs from all the tracks

Screen saver time

We can activate or choose the activation time for the screen saver

Screen saver type

We can choose the screen saver type.

Step probability min

We can choose between two different sets of gate probability, **min 12%**(default) or **min 0%** to allow reaching a gate probability state where no gates are produced.

Tempo response

We can choose between changing the tempo either gradually while rotating the encoder or drastically after pressing the encoder button

Gate delay in Recording

To record sources that (presumably wrong) rise the gate before stabilizing the CV a delay can be added to record GATE&CV in LIVE REC

Patterns And Projects Management

The module can store 128 projects in the microSD card. A project contains 64 patterns that are organized in 4 banks of 16 patterns each. So the total amount of patterns that can be stored in the system is 8192.

The system works with a project loaded in volatile memory (RAM). If you want to keep your edits and settings you will need to save the project before turning the power off.

Every time you load a project, that project will be loaded into the volatile memory, and the previous project changes will disappear if they haven't been saved.

Let's have a look at how to work with patterns and projects...

Pattern Mode

This mode allows you to activate, copy, save and edit patterns.

Patterns can be fully or partially copied.

Each pattern can be linked to one of the 8 scale groups available in Scale Mode.

Each individual pattern can be set to start from the first step when triggered (independently from the 'Track reset config').

Pattern Change

Access Pattern Mode by holding the FUNC button while pressing the Pattern key. Use the track keys to navigate through banks and the step keys to select or trigger the desired pattern. The first 4 tracks represent the 4 banks inside a project and the 16 step buttons represent the 16 patterns inside a bank. The system will wait until the end of the master track to move on to the next pattern.

Pattern scale group assignment

Access Pattern Mode by holding the FUNC button while pressing the Pattern key. Press the encoder to access "Scale GRP", rotate the encoder to choose the desired group (from 1 to 8) and press the encoder again to confirm. The root and scale for each group can be configured in the Scale Menu (FUNC + SCALE).

Pattern reset

Each pattern can have its own reset configuration:

- **Reset: OFF** : Tracks will reset depending on 'reset track config' ◦
- **Reset: ON** : Tracks will always reset independently from 'reset track config' ◦

- **Reset: FIRST**: Tracks will reset to its first position only the first time that they are played (coming from another pattern)

Quick pattern chaining (aka Devine mode):

A quick way to create pattern chains. Being in pattern mode, two patterns (steps) can be pressed to create a new chain starting at the first and ending at the second (after the current pattern finishes it will start to play the chain in loop). The chain will be activated when you release the two buttons.

The way it jumps between patterns can be changed by holding the two buttons (first and last pattern) and rotating the encoder, the modes are forward, backward, random, coin toss (previous or next) and drunken (previous, current or next).

If you press a pattern outside the chain you will break the chain and will start to play that new pattern (after the current pattern ends), if you press a pattern inside the chain you will change the pattern to edit, if you long press inside the chain you will break the chain and start to play that pattern (after the current pattern ends).

With the pattern chain created it's easy to edit patterns, steps can be edited using the step edition modes and the chain section (or pattern) can be changed using FUNC + encoder.

Pattern Copy / Paste

Patterns can be copied to a new pattern slot. To do this, navigate to Pattern mode (Function + Pattern) then press and hold Function + Copy for at least ½ second. Notice that while you hold the buttons the step edition modes LEDs will light up. This means that you are copying all the parameters. If you don't want to copy some of the parameters, press the button of the unwanted parameter while you are still holding Function + Copy. Once Function + Copy is released the desired pattern parameters will be copied. Now we have to go to the new pattern. Using the first 4 track buttons (bank) and the 16 steps (pattern) choose the new pattern where you want to paste the copied pattern. To paste it, press and hold Function + Paste for at least ½ second.

Summary :

1. We are in pattern mode (Function + Pattern) and we have chosen the desired pattern to be copied [Track button (bank) followed by Step button (pattern)]
2. Copy (press Function + Copy and hold)
3. Deselect the parameters you don't want to copy with the edit mode keys (while still holding Function + Copy)
4. Release Function + Copy
5. Go to the destination pattern [Track button (bank) followed by Step button (pattern)]
6. Paste (Function + Paste for at least ½ second)

Track Copy / Paste

We can also copy a single track from a pattern and copy it into another track on any pattern. We can choose if we want to copy only certain parameters (CVs, Gates, Gate Lengths or Ratcheting).

Copy A Track To Another Track Within The Same Pattern

Navigate to any of the step edition modes (CV, Gate, Gate Length or Ratcheting) and choose the track you want to copy. Now press and hold Function + Copy and notice that the edit mode LEDs will light up. This means that you are copying all the parameters. To deselect certain parameters, press the button of the unwanted parameter while you are still holding Function + Copy. Once Function + Copy are released the desired track parameters will be copied. Finally select the destination track and press and hold the Function + Paste.

Summary:

1. Navigate to an edit mode (CV, Gate, Gate Length, Ratcheting) and choose the track we want to copy.
2. Copy (press Function + Copy and hold)
3. Deselect the parameters you don't want to copy with the edit mode keys (while still holding Function + Copy)
4. Release Function + Copy
5. Choose the new destination track
6. Paste (Function + Paste for at least 1/2 second)

Copy A Track To Another Track In A Different Pattern

Navigate to any of the step edition modes (CV, GATE, GATE LEN, RATCHET) and choose the track you want to copy. Hold Function + Copy and notice that the edit modes LEDs will light up. This means that you are copying all the parameters. If you don't want to copy all the parameters, press the button of the unwanted parameter while you are still pressing the combination Function + Copy to deselect them. Once Function + Copy is released, the desired track parameters will be copied.

Next go to Pattern mode (press and hold Function + Pattern) to choose the desired pattern [track(bank), step(pattern)]. After choosing the pattern, choose any of the step edition modes (CV, Gate, Gate Length or Ratcheting). Then select the destination track and press and hold Function + Paste

Summary:

We are in edit mode (CV, GATE, GATE LEN, RATCHET) and we have chosen the track we want to copy.

1. Copy (press Function + Copy and hold)
2. (While holding) deselect the parameters you don't want to copy by pressing the relevant green lit edit mode buttons

3. Release Function + Copy
4. Go to Pattern Mode (hold Function + Pattern for at least ½ second)
5. Choose the desired Bank and Pattern (via the Track then Step buttons)
6. Go to any of the editing modes (CV, Gate, Gate Length, Ratcheting)
7. Select the desired track you want to paste the track to
8. Paste (Function + Paste for at least ½)

Duplicate Pattern

Duplicating is a fast way to make a copy of the current pattern and having it pasted it into the next free pattern slot (inside the current project), while continuously playing the current pattern. To use it, navigate to Step Edit mode or Pattern mode then simply press and hold Function + Duplicate for at least ½ second. You will automatically be moved to the next free pattern slot which contains the same sequence data as the previous one.

Clear

Clear can be used to delete patterns and tracks. Depending on where you are, this function will take a different action. If you are in any of the step editing modes (CV, Gate, Gate Length or Ratcheting) you will delete the selected track. If you are in Pattern mode you will delete the entire pattern. In both cases partial clear can be done. While holding Function + Clear deselect the parameters you do not wish to remove.

When in Project Mode if you press Function + Clear and hold for at least 1/2 second, you can erase the whole project. You will be asked for a confirmation, use the encoder and its button to choose your option. If you choose "Yes" it will erase the whole project and all of its contents.

When in song mode, 'Create Part' and 'Play Part', if you press Function + Clear and hold for at least 1/2 second, you can erase the selected part. You will be asked for a confirmation, use the encoder to confirm.

Project

All the projects are stored in the MicroSD card. Each card can store 128 projects.

The projects have to be saved before powering off the sequencer in order to keep all the changes.

Go to Pattern Mode by holding the FUNC button while pressing the PROJECT button. Use the track and step buttons to choose the desired bank and pattern. The 8 track buttons represent the 8 banks and the 16 step buttons represent the 16 projects inside a bank. To access a project, press and release the bank (track button) and then press and release the project (step button), then use the encoder to choose Save or Load and press the encoder to confirm.

You can also copy, paste and clear projects.

Projects can be copied to a new project slot. To do this, navigate to Project mode (Function + Project), choose the desired project to be copied using the 8 track buttons (bank) and the 16 steps (project) then press and hold Function + Copy for at least ½ second. Now we have to go to the new project. Do so using

the 8 track buttons (bank) and the 16 steps (project) and choose the new project where you want to paste the copied project. To paste it, press and hold Function + Copy for at least ½ second.

To clear a project, navigate to Project mode (Function + Project) and choose the desired project to be deleted using the 8 track buttons (bank) and the 16 steps (project), then press and hold Function + Clear for at least ½ second.

Song

In SONG mode we can find two different abstractions: Part and Song.

A Part is a sequence of patterns. A total of 16 patterns can be chained to create a Part.

Parts can be accessed using the PLAY PARTS mode. Press step buttons to select the different Parts. Press the track buttons to swap between the different Banks of 16 Parts

A Song is a sequence of Parts. A total of 256 Parts can be chained to create a Song.

Create Part

Choose **"Create Part"** in the SONG menu.

Choose the Part you want to create using the track buttons (bank) and the step buttons to choose the desired Part to edit. There are 64 Parts in every project (4 Banks of 16 Parts each).

Once you have chosen the Part to edit, press the encoder button to start introducing patterns in this Part. Notice that the chosen Part will be lit in green and the previously edited Parts will be lit in orange. Empty parts will not be lit.

If song mode is active and you want to edit the same Part that is currently in play, you will be asked to stop the sequencer. In all the other cases it is not necessary to stop.

Once you have pressed the encoder button you will delete the previous information in the desired part.

Next use track and step buttons to choose the desired patterns. Following the same color scheme the edited patterns will be lit in orange, and the empty patterns will not be lit. In this case it's not possible to choose empty patterns to create a Part. Once you are done and you have chosen all the patterns to create that Part, press the encoder to finish. If you reach the maximum amount of patterns per Part (16) it will automatically stop the Part creation.

Play Part

Choose **"Play Part"** in the SONG menu.

Use track and step buttons to choose the desired Part.

If the sequencer is not running when you press the desired Part it will automatically start that Part, and the SONG mode will be activated.

If you change the Part during play it will wait until the end of the current pattern and will jump to the first Pattern of the new chosen Part.

If the SONG mode is in Loop it will play that Part until you either:

- Change to a new part
- Deactivate the SONG mode
- Press the Start / Stop button

Clear Part

When in song mode, 'Create Part' and 'Play Part', if you press Function + Clear and hold for at least 1/2 second, you can erase the selected part. You will be asked for a confirmation, use the encoder to confirm.

Create Song

Choose "Create Song" in the SONG menu.

Press the encoder to start.

Use track and step buttons to choose the desired Parts to sequence. Following the usual color scheme the edited parts will be lit in orange, and the empty parts will not be lit. In this case it's not possible to choose an empty Part to create a Song. Once you are done and you have chosen all the Parts to create that Song, press the encoder to finish.

The maximum song length is 256 Parts (bearing in mind that a Part can have 16 Patterns, the maximum number of Patterns that can be sequenced is 4096).

Play Song

Choose "Play Song" in the SONG menu. The Song will automatically start to play.

If the SONG mode Loop is active it will loop that Song until either:

- SONG mode is off
- Start / Stop button is pressed

Tips

Sequencers synchronization - Eloquencer as slave

Eloquencer can be synchronized to an external master sequencer. It requires a **clock signal** (ideally at 1/16th resolution) and a **reset signal** (ideally a RUN signal: *Play = High, Stop = Low*).

- Connect the master's **Clock Out** to the Eloquencer's **CLOCK In**, and set the appropriate clock multiplier to match the master's timing: **[FUNC] + [CLOCK] > CLK IN mult.**
- Connect the master's **Reset/Run Out** to the Eloquencer's **RESET In**, and enable the reset behavior: **[FUNC] + [OPTIONS] (HOLD) > GLOBAL > Rst in**

Sequencers synchronization - Eloquencer as master

Eloquencer can also act as a master sequencer, sending a **clock signal** (ideally at 1/16th resolution) and a **reset signal** (ideally RUN: *Play = High, Stop = Low*) to a slave device.

- Connect **Eloquencer Clock Out** to the slave's **CLOCK In**, and adjust the output multiplier if needed: **[FUNC] + [CLOCK] > CLK OUT mult.**
- Connect **Eloquencer AUX Out** to the slave's **RESET In**, and configure the AUX output to send a Reset signal: **[FUNC] + [AUX] > Start HIGH-Stop LOW** (for RUN signal)

Synchronizing two Eloquencer

Two Eloquencers can be synchronized using the methods described above (master/slave via clock and reset).

If both units are equipped with the **EME (Eloquencer MIDI Expander)**, synchronization can also be achieved via **MIDI**.

This method offers an additional feature: the **slave unit can mirror the master's pattern**, effectively turning both units into a synchronized 16-track sequencer system.

Troubleshooting

None of the CV outputs are working, but the Gate outputs are functioning correctly.

The Eloquencer is not reading the Chromatic CV values stored in the microSD card, this can be caused by:

- **The CV Out tune has been changed to 'User Tune', and the User Tune is empty.**

Solution: Change it back to the default tune via:

[FUNC] + [OPTIONS] (HOLD) > Global Options > Tune > Load default tune

- **There is a problem with the microSD card, or the default_tune file is corrupted.**

Solution:

If you have a backup microSD card, try swapping it in.

If you don't have a backup, visit the Eloquencer GitHub page to download the `def_tune.e1o` file specific to your unit (linked to your unit's serial number). Copy it to a new microSD card and test the CV outputs again.

You can also try to recover your project files (`PROJECT_XXX.e1o`) from the original microSD card and copy them to the new one.

EME Manual

Introduction

The EME (Eloquencer MIDI Expansion) is the perfect companion for the Eloquencer, adding capabilities to sync with MIDI devices, control most of the Eloquencer parameters via MIDI, generate MIDI voices from Eloquencer tracks, and convert MIDI signals to the Eurorack world.

Features:

- ❑ MIDI Synchronization: MIDI CLK IN and OUT.
- ❑ MIDI Control: Use a MIDI controller with mapped CCs to modify Eloquencer parameters.
- ❑ MIDI Keyboard: Enter notes in LIVE REC mode or FREE PLAY mode.
- ❑ MIDI IN Route: Converts MIDI to Gate and CV for any Eloquencer track.
- ❑ MIDI IN Transpose: Use a MIDI keyboard to transpose Tracks
- ❑ MIDI OUT: Sends internal Eloquencer sequences as MIDI notes, CC, or Program Change messages.
- ❑ Assignable Buttons: Customize the Eloquencer with four programmable buttons.
- ❑ 8x V/Oct CV Outputs

Installation

Before using the EME, complete the following steps:

1. **Update the Eloquencer** (if running firmware 1.3.5 or lower).
2. **Connect the Eloquencer and EME** using the provided 4-pin cable.

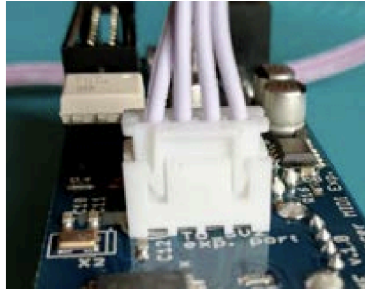
Updating the Eloquencer

To use the EME, the Eloquencer must run firmware version 1.3.5 or higher. The updater and instructions can be found on GitHub: [GitHub ELOQUENCER Updater](#)


Note: Use a USB data transfer cable, not a charging cable, to avoid detection issues. If the updater fails, try a different USB cable, as this is a common cause of detection issues. If the updater does not detect the eloquencer close the updater, try another USB cable and run the application again.

Connecting Eloquencer and EME

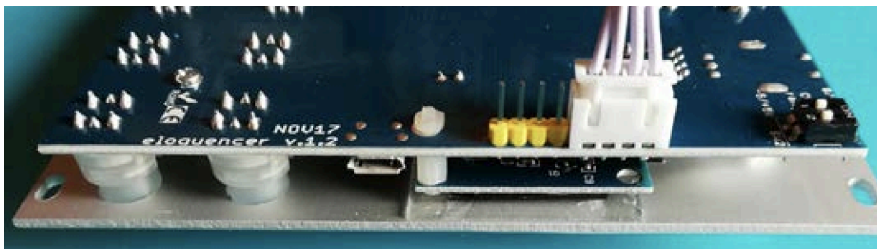
Connect the EME to the Eloquencer using the provided 4-pin cable. Ensure the connector aligns with the plastic socket rails for correct installation.



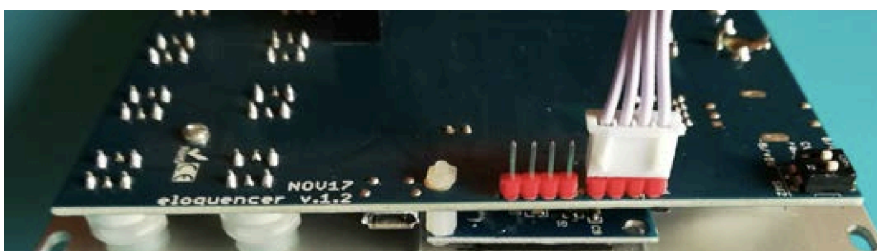
⚠ Important Serial Number Considerations:

 *Note: the serial number is on the rear part, beside the power connector.*

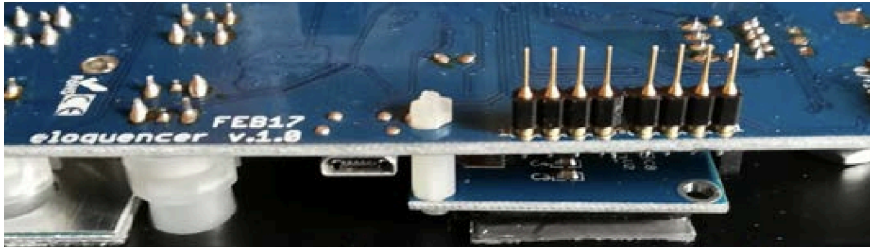
- ❑ **Above 4999:** Connect as indicated by the arrows, use SV2 (upper) connector



- ❑ **Below 5000:** Use the SV2 position, ensuring arrows face outward.



- ❑ If you have one of the first units (serial number starting with 1) you will notice that the connector has rounded pins. While these work well, you may find that it fits a bit loose. Because of this, we recommend you pay attention when moving your case you make sure this connector is still attached.
- ❑ If you prefer a more permanent solution, there are more secure ways to attach this connector. You can use a small drop of cyanoacrilate to adhere cable to the connector, or you can replace the 4 rounded pins attached to the eloquencer for 4 squared pins. (you will need a solder iron and minimum soldering skills)



After connecting, power up the system. If the update was successful, the Eloquencer will detect the EME, displaying **Exp 2 : EME** during startup.

MIDI IN

The Eloquencer can receive MIDI messages for various functions:

- ❑ **MIDI IN Clock & Transport (DIN5):** Receives standard MIDI clock (24 PPQN) and Start/Stop messages
- ❑ **MIDI Control (USB & DIN5):** Eloquencer can receive MIDI CC messages from a MIDI controller to control the Eloquencer parameters. There is a list of CCs and channels that can be used to control specific Eloquencer parameters (see Appendix 1 - CC in tables).
- ❑ There are three main types of control: global, focus and track:
 - **GLOBAL:** All the CC messages received in MIDI Channel 1 are global messages, those are related with generic Eloquencer parameters, or in some cases with 'selected' parameters. Examples of global parameters include tempo, shuffle, scale, or going to a specific mode. Example of 'selected' can be STEP MODE SELECTED, when we go to the step mode configuration you can select which tracks you are modifying, so sending CH1 CC34 will be modifying the STEP MODE in this selected group of tracks.
 - **FOCUS:** All the CC messages received in CH2 are FOCUS channels, so we will be modifying the focused track. For example if you press track A in the Eloquencer, and you send a value in CH2 CC39 (TRACK SHIFT FOCUS) you will be track shifting track A, then you press track H button and send again CC39 in CH2 message and you will be track shifting track H.
 - **TRACK:** All the CC MIDI messages received between CH9 and CH16 will be understood to control an specific Eloquencer Tracks
 - CH 9 > TRACK A
 - CH 10 > TRACK B
 - CH 11 > TRACK C
 - CH 12 > TRACK D
 - CH 13 > TRACK E
 - CH 14 > TRACK F
 - CH 15 > TRACK G
 - CH 16 > TRACK H

Example: Sending **CH9 CC71** value 127 mutes Track A, while **CH10 CC71** mutes Track B.

MIDI Keyboard (USB & DIN5)

A Keyboard MIDI controller can be used to send 'note on' and 'note off' messages to:

- ❑ **MIDI IN REC:** Record notes in a sequence.

- ❑ **FREE PLAY:** Send MIDI notes to analog outputs (Gate/CV) or assigned MIDI output for the focused track.
- ❑ **MIDI TRANSPOSE:** Transpose the selected track/s

MIDI IN Route (USB & DIN5)

This functionality allows to use the Eloquencer as a MIDI to GATE and CV interface, that means that all the 'note on' and 'note off' MIDI messages received in the chosen MIDI channel will be transformed into GATE and CV value for the chosen Track. In this case if we chose something different from 'none' in the MIDI IN route configuration the information contained in the Eloquencer sequence won't be listen anymore, and the GATE and CV outputs of the track will only change if a 'note on' or 'note off' message is received in the chosen MIDI channel.

To access the MIDI IN configuration press and hold FUNC (in the Eloquencer) + BTN4 (in the EME), and go to MIDI IN

MIDI IN Configuration

KEY REC

[FUNC] + [MIDI] (HOLD) > MIDI IN > **Key REC**

Here we decide which channel are we going to listen/record while being in MIDI IN REC or FREE PLAY (LIVE REC). There are two main possibilities:

- **CH1-8>A-H**: All the 'note on' and 'note off' MIDI messages received in a specific MIDI channel will be played or recorded in a specific track as shown below:
 - CH 1 > TRACK A
 - CH 2 > TRACK B
 - CH 3 > TRACK C
 - CH 4 > TRACK D
 - CH 5 > TRACK E
 - CH 6 > TRACK F
 - CH 7 > TRACK G
 - CH 8 > TRACK H
- **CHx>FOCUS**: All the 'note on' and 'note off' MIDI messages received in the chosen MIDI channel will be played or recorded on the current focused track (from A to H)

KEY TRANSPOSE

[FUNC] + [MIDI] (HOLD) > MIDI IN > **Key Transpose**

Allows to transpose Eloquencer tracks with incoming MIDI note on messages (keyboard)


Navigate using the encode to assign a channel to any of the Eloquencer tracks

KEY TRANSPOSE

[FUNC] + [MIDI] (HOLD) > MIDI IN > **MIDI IN route**

Allows to route the incoming MIDI note on messages (keyboard) to any of the Eloquencer tracks

Navigate using the encode to assign a channel to any of the Eloquencer tracks

 **When activating the MIDI IN route on a track, the sequence on that track will stop playing. Instead, the track will only respond to incoming MIDI messages. If you've enabled MIDI IN route by**

accident or forgotten you did so, it might seem like the track's gate and CV outputs have stopped working.

CONTROL ROTARY TYPE

[FUNC] + [MIDI] (HOLD) > MIDI IN > **Contr. rotary type**

Here you define how the Eloquencer will interpret the CC messages coming from the MIDI controller. In most cases, you can choose whether the rotary control operates in **Absolute** or **Incremental** mode. However, some parameters can only be configured in **Incremental** mode (see *Appendix 1 – CC Tables*).

- **Absolute** – The Eloquencer expects standard potentiometer or fader behavior. This means that if the MIDI controller is at its minimum position, it will send a value of 0. As you turn the knob clockwise, the controller sends absolute values representing its position, reaching a maximum value of 127 at the end of its range.
- **Incremental** – The Eloquencer expects relative changes. Any value above 64 is interpreted as a positive increment. For example, if the Eloquencer receives a value of 68, it will be understood as a +4 increment ($68 - 64 = 4$). Any value below 64 is interpreted as a negative increment. For instance, a value of 58 is read as a -6 increment ($58 - 64 = -6$).

This behavior can be set independently for most MIDI CC control parameters.

You can also apply the same behavior to all parameters at once using the '**Change all to: Incr./Abs**' option.

INCREMENTAL ROTARY SENSITIVITY

[FUNC] + [MIDI] (HOLD) > MIDI IN > **Inc. Rotary sens**

Defines how many detents (clicks) of a rotary encoder are needed to register a value change. Example: Setting to 4 means four clicks are required for one value increment.

CONTROLLER FEEDBACK

[FUNC] + [MIDI] (HOLD) > MIDI IN > **Contr. feedback: Yes/No**

Determines whether the EME sends feedback to a MIDI controller (useful for controllers with LED indicators).

MIDI CC CONTROL

[FUNC] + [MIDI] (HOLD) > MIDI IN > **CC Control: Yes/No**

Determines whether the Eloquencer listens to incoming CC messages that can modify its configuration.

Disabling this option can be useful when the MIDI bus is shared with other devices that may send CC messages conflicting with Eloquencer parameters.

MIDI IN NOTE OFFSET

[FUNC] + [MIDI] (HOLD) > MIDI IN > **MIDI in note ofst: 0**

Adds or subtracts an offset to incoming MIDI IN Note On and Note Off messages.

By default, this is set to 0, meaning that MIDI note values correspond to octave -1 (or -2, depending on the controller). With this setting, incoming MIDI notes can cover the Eloquencer's entire CV output range.

MIDI OUT

This functionality allows you to route the sequence information from a specific Eloquencer track to a selected MIDI channel and message type.

Every time a **GATE** event occurs in the sequence, it will be converted into a MIDI message using the corresponding **CV step value**.

There are three available message types:

- **VOICE:** Sends note-related messages. A 'Note' event will trigger **Note On** and **Note Off** messages via MIDI. If velocity is enabled, it will add velocity information to the Note message. *Velocity will only work if there is another track assigned to the same MIDI channel with **Type: VOICE** and **Value: NOTE**.*
- **CC (Control Change):** Converts the sequence values into MIDI CC messages. You can define both the **MIDI channel** and the **CC number**.
- **PGMCH (Program Change):** Converts the sequence values into **Program Change** messages. In this case, you can set the **MIDI channel** and the **Bank**.

To ensure proper sequencing of MIDI events, you must define the order in which they are sent.

The execution order follows the track order: **Track A** is processed first, and **Track H** last. The recommended order of message types is:

1. **PGMCH** – to make sure the preset is selected before any notes are played.
2. **CC** – to update control parameters.
3. **NOTE** – to trigger the sound.

MIDI CLK

In this section we have options to enable or disassemble MIDI messages related with MIDI clock or MIDI transport.

MIDI Clock out

We can choose if EME outputs MIDI clock messages

[FUNC] + [MIDI] (HOLD) > **MIDI CLK > MIDI CLK out: YES/NO**

MIDI Transport out

We can choose if EME outputs MIDI transport messages (Play and Stop)

[FUNC] + [MIDI] (HOLD) > **MIDI CLK > MIDI TRNSP out: YES/NO**

MIDI Transport in

We can choose if EME listen to the incoming MIDI transport messages (Play and Stop)

[FUNC] + [MIDI] (HOLD) > **MIDI CLK > MIDI TRNSP in: YES/NO**

Load/Save Configuration

1. Choose a slot (1-16) using step buttons.
2. Select **LOAD** or **SAVE** via the rotary encoder.
3. Press the encoder and confirm.



Note: The MIDI configuration is saved independently from the EME BUTTONS configuration.

EME Buttons

The four EME buttons are assignable (see Appendix 2 for options). Default assignments:

- BTN1: Previous pattern
- BTN2: Next pattern
- BTN3: Previous part
- BTN4: Next part

Assigning Functions:

1. [FUNC in ELOQ] + [BTN3 in EME] (HOLD)
2. Press the desired button.
3. Select functionality via the encoder.

Load/Save Button Assignments

To save button mappings:

1. Select an assignment slot (1-16) using step buttons.
2. Choose **LOAD** or **SAVE** with the rotary encoder.
3. Confirm selection.



Note: The EME BUTTONS configuration is saved independently from the MIDI configuration.

Troubleshooting

- **Rotaries not responding correctly?**
 - Ensure the MIDI controller and EME settings match (absolute vs. incremental).
- **EME not working?**
 - Check that Eloquencer is running firmware 1.3.0 or higher.
 - Verify physical connections.

Appendix 1 - CC Tables

CHANNEL / TRACK (MIDI in from CH1 to CH8)				
Relative to a particular channel, MIDI CH 1 modifies Track A, MIDI CH 2 modifies Track B				
CC		Rotary / Button	Rotary / Button Behavior	
12	CV ADD	ROTARY	only incremental	Adds or subtract the value to the global CV values, it affects all the patterns and is not destructive. It is link with CC 77, resetting the value to 0
13	CVP ADD	ROTARY	only incremental	Adds or subtract the value to the global CVP values, it affects all the patterns and is not destructive. It is link with CC 78, resetting the value to 0
14	CVR ADD	ROTARY	only incremental	Adds or subtract the value to the global CVR values, it affects all the patterns and is not destructive. It is link with CC 79, resetting the value to 0
15	GP ADD	ROTARY	only incremental	Adds or subtract the value to the global GP values, it affects all the patterns and is not destructive. It is link with CC 80, resetting the value to 0
16	GL ADD	ROTARY	only incremental	Adds or subtract the value to the global GL values, it affects all the patterns and is not destructive. It is link with CC 81, resetting the value to 0
17	GLP ADD	ROTARY	only incremental	Adds or subtract the value to the global GLP values, it affects all the patterns and is not destructive. It is link with CC 82, resetting the value to 0
18	GLR ADD	ROTARY	only incremental	Adds or subtract the value to the global GLR values, it affects all the patterns and is not destructive. It is link with CC 83, resetting the value to 0
19	R ADD	ROTARY	only incremental	Adds or subtract the value to the global R values, it affects all the patterns and is not destructive. It is link with CC 84, resetting the value to 0
20	RP ADD	ROTARY	only incremental	Adds or subtract the value to the global RP values, it affects all the patterns and is not destructive. It is link with CC 85, resetting the value to 0
21	RVP ADD	ROTARY	only incremental	Adds or subtract the value to the global RVP values, it affects all the patterns and is not destructive. It is link with CC 86, resetting the value to 0
22	TRACK SHIFT	ROTARY	ABS / INC	
23	TRK LEN STRT	ROTARY	ABS / INC	
24	TRK LEN END	ROTARY	ABS / INC	
25	STEP MODE	ROTARY	ABS / INC	
26	STEP MODE DIV	ROTARY	ABS / INC	
27	STEP MODE REP	ROTARY	ABS / INC	
28	LFO TYPE	ROTARY	ABS / INC	
29	LFO PATTERN	ROTARY	ABS / INC	
30	LFO STEPS	ROTARY	ABS / INC	
31	LFO TIME	ROTARY	ABS / INC	Jumps 4 steps for each rotary detent
32	LFO AMPLITUDE	ROTARY	ABS / INC	
33	LFO OFFSET	ROTARY	ABS / INC	
70	FILL	PUSH BTN	PUSH	
71	MUTE	PUSH BTN	TOGGLE	
72	RANDOM 1 LAYER	PUSH BTN	PUSH	randomizes the selected track (midi CH 1 to 8)
73	RANDOM 3 LAYERS	PUSH BTN	PUSH	
74	CV GATE LINK		TOGGLE	
75	LFO RST	PUSH BTN	PUSH	
76	LFO ON/OFF	PUSH BTN	TOGGLE	
77	CV ADD reset	PUSH BTN	PUSH	relative to track add parameters. Resets to 0
78	CVP ADD reset	PUSH BTN	PUSH	relative to track add parameters. Resets to 0
79	CVR ADD reset	PUSH BTN	PUSH	relative to track add parameters. Resets to 0
80	GP ADD reset	PUSH BTN	PUSH	relative to track add parameters. Resets to 0
81	GL ADD reset	PUSH BTN	PUSH	relative to track add parameters. Resets to 0
82	GLP ADD reset	PUSH BTN	PUSH	relative to track add parameters. Resets to 0
83	GLR ADD reset	PUSH BTN	PUSH	relative to track add parameters. Resets to 0
84	R ADD reset	PUSH BTN	PUSH	relative to track add parameters. Resets to 0
85	RP ADD reset	PUSH BTN	PUSH	relative to track add parameters. Resets to 0
86	RVP ADD reset	PUSH BTN	PUSH	relative to track add parameters. Resets to 0
86	OCTAVE DOWN	PUSH BTN	PUSH	
86	OCTAVE UP	PUSH BTN	PUSH	

GLOBAL (MIDI CH9)				relative to global parameters, or a group of tracks
CC		Rotary / Button	Rotary / Button Behavior	
12	CV ADD	ROTARY	only incremental	Adds or subtract CV value to the tracks assign in 'OPTIONS > CV ASSIGN > CV ADD', it affects all the patterns and is not destructive. It is link with CC 89, resetting the value to 0
13	TEMPO	ROTARY	only incremental	
14	GROUP SCALE ROOT 1	ROTARY	ABS / INC	
15	GROUP SCALE ROOT 2	ROTARY	ABS / INC	
16	GROUP SCALE ROOT 3	ROTARY	ABS / INC	
17	GROUP SCALE ROOT 4	ROTARY	ABS / INC	
18	GROUP SCALE ROOT 5	ROTARY	ABS / INC	
19	GROUP SCALE ROOT 6	ROTARY	ABS / INC	
20	GROUP SCALE ROOT 7	ROTARY	ABS / INC	
21	GROUP SCALE ROOT 8	ROTARY	ABS / INC	
22	GROUP SCALE 1	ROTARY	ABS / INC	
23	GROUP SCALE 2	ROTARY	ABS / INC	
24	GROUP SCALE 3	ROTARY	ABS / INC	
25	GROUP SCALE 4	ROTARY	ABS / INC	
26	GROUP SCALE 5	ROTARY	ABS / INC	
27	GROUP SCALE 6	ROTARY	ABS / INC	
28	GROUP SCALE 7	ROTARY	ABS / INC	
29	GROUP SCALE 8	ROTARY	ABS / INC	
30	TRACK SHIFT SELECTED	ROTARY	ABS / INC	Shifts the tracks selected in 'Track Shift Mode'
31	CLOCK OUT MULT	ROTARY	ABS / INC	
32	RANDOM LOW RANGE	ROTARY	ABS / INC	
33	RANDOM HIGH RANGE	ROTARY	ABS / INC	
34	STEP MODE SELECTED	ROTARY	ABS / INC	Changes the step mode in the tracks selected in the 'step mode section'
35	STEP DIV SELECTED	ROTARY	ABS / INC	Changes the step mode div in the tracks selected in the 'step mode section'
36	STEP REP SELECTED	ROTARY	ABS / INC	Changes the step mode rep in the tracks selected in the 'step mode section'
37	SHUFFLE	ROTARY	ABS / INC	
38	CHOOSE PATT IN BANK	ROTARY	ABS / INC	
39	CHOOSE PATT IN PROJECT	ROTARY	ABS / INC	
40	CHOOSE PART IN PROJECT	ROTARY	ABS / INC	
41	RESERVED	-	-	
42	RESERVED	-	-	
43	RESERVED	-	-	
70	PLAY	PUSH BTN	PUSH	
71	STOP	PUSH BTN	PUSH	
72	RANDOM 1 LAYER SELECTED	PUSH BTN	PUSH	randomizes the selected tracks in 'Random Mode'
73	RANDOM 3 LAYERS SELECTED	PUSH BTN	PUSH	randomizes the selected tracks in 'Random Mode'
74	NEXT PATT	PUSH BTN	PUSH	
75	PREV PATT	PUSH BTN	PUSH	
76	NEXT PART	PUSH BTN	PUSH	
77	PREV PART	PUSH BTN	PUSH	

78	FREEZE	PUSH BTN	PUSH	
79	REVERT	PUSH BTN	PUSH	
80	PATTERN MODE	PUSH BTN	PUSH	
81	PLAY PARTS MODE	PUSH BTN	PUSH	
82	DUPLICATE	PUSH BTN	PUSH	
83	SAVE CURRENT PROJECT	PUSH BTN	PUSH	
84	PROJECT MODE	PUSH BTN	PUSH	
85	GATE REC MODE	PUSH BTN	PUSH	
86	CV KEY REC MODE	PUSH BTN	PUSH	
87	MIDI KEY REC MODE	PUSH BTN	PUSH	
88	FREE PLAY MODE	PUSH BTN	PUSH	
89	RESET CV ADD	PUSH BTN	PUSH	
90	CLEAR CURRENT TRACK	PUSH BTN	PUSH	
91		PUSH BTN	PUSH	
92	eme btn 1	PUSH BTN	PUSH	executes the action that is assigned to the button
93	eme btn 2	PUSH BTN	PUSH	executes the action that is assigned to the button
94	eme btn 3	PUSH BTN	PUSH	executes the action that is assigned to the button
95	eme btn 4	PUSH BTN	PUSH	executes the action that is assigned to the button
96	DJ NUDGE <<	PUSH BTN	PUSH	tempo nudge back coarse
97	DJ NUDGE <	PUSH BTN	PUSH	tempo nudge back fine
98	DJ NUDGE >>	PUSH BTN	PUSH	tempo nudge forward coarse
99	DJ NUDGE >	PUSH BTN	PUSH	tempo nudge forward fine
100	Mute Mode	PUSH BTN	PUSH	go to mute mode
101	Fill Mode	PUSH BTN	PUSH	go to fill mode
102	Next Pattern to edit	PUSH BTN	PUSH	Jump to next pattern to edit
103	Prev Pattern to edit	PUSH BTN	PUSH	Jump to previous pattern to edit
104	Song mode and play song	PUSH BTN	PUSH	Go to song mode and play the song

FOCUS (MIDI CH10)				
Relative to a particular channel that is currently chosen in the ELOQ interface (track keys) or the step edition mode (cv,gl,r...)				
cc		Rotary / Button	Rotary / Button Behavior	
12	CV ADD	ROTARY	only incremental	Adds or subtract CV value to the current track (chosen with track buttons), it affects all the patterns and is not destructive. It is link with CC 93, resetting the value to 0
13	CVP ADD	ROTARY	only incremental	
14	CVR ADD	ROTARY	only incremental	
15	GP ADD	ROTARY	only incremental	
16	GL ADD	ROTARY	only incremental	
17	GLP ADD	ROTARY	only incremental	
18	GLR ADD	ROTARY	only incremental	

19	R ADD	ROTARY	only incremental	
20	RP ADD	ROTARY	only incremental	
21	RVP ADD	ROTARY	only incremental	
22	STEP 1	ROTARY	ABS / INC	changes the value of the parameter depending on the choice of channel and step mode edition. If eloquencer is in CVP mode and in track E, it will change the CVP value of track E for step 1
23	STEP 2	ROTARY	ABS / INC	
24	STEP 3	ROTARY	ABS / INC	
25	STEP 4	ROTARY	ABS / INC	
26	STEP 5	ROTARY	ABS / INC	
27	STEP 6	ROTARY	ABS / INC	
28	STEP 7	ROTARY	ABS / INC	
29	STEP 8	ROTARY	ABS / INC	
30	STEP 9	ROTARY	ABS / INC	
31	STEP 10	ROTARY	ABS / INC	
32	STEP 11	ROTARY	ABS / INC	
33	STEP 12	ROTARY	ABS / INC	
34	STEP 13	ROTARY	ABS / INC	
35	STEP 14	ROTARY	ABS / INC	
36	STEP 15	ROTARY	ABS / INC	
37	STEP 16	ROTARY	ABS / INC	
38	TRACK SHIFT	ROTARY	ABS / INC	
39	TRK LEN STRT	ROTARY	ABS / INC	
40	TRK LEN END	ROTARY	ABS / INC	
41	STEP MODE	ROTARY	ABS / INC	
42	STEP DIV	ROTARY	ABS / INC	
43	STEP REP	ROTARY	ABS / INC	
44	LFO TYPE	ROTARY	ABS / INC	
45	LFO PATTERN	ROTARY	ABS / INC	
46	LFO STEPS	ROTARY	ABS / INC	
47	LFO TIME	ROTARY	ABS / INC	
48	LFO AMPLITUDE	ROTARY	ABS / INC	
49	LFO OFFSET	ROTARY	ABS / INC	
70	STEP 1	PUSH BTN	PUSH	Activates / deactivates the step 1 for the chosen track
71	STEP 2	PUSH BTN	PUSH	
72	STEP 3	PUSH BTN	PUSH	
73	STEP 4	PUSH BTN	PUSH	
74	STEP 5	PUSH BTN	PUSH	
75	STEP 6	PUSH BTN	PUSH	
76	STEP 7	PUSH BTN	PUSH	
77	STEP 8	PUSH BTN	PUSH	
78	STEP 9	PUSH BTN	PUSH	
79	STEP 10	PUSH BTN	PUSH	
80	STEP 11	PUSH BTN	PUSH	
81	STEP 12	PUSH BTN	PUSH	
82	STEP 13	PUSH BTN	PUSH	
83	STEP 14	PUSH BTN	PUSH	
84	STEP 15	PUSH BTN	PUSH	
85	STEP 16	PUSH BTN	PUSH	
86	FILL FOCUS	PUSH BTN	PUSH	
87	MUTE FOCUS	PUSH BTN	TOGGLE	
88	RANDOM 1 LAYER	PUSH BTN	PUSH	randomized the current chosen track
89	RANDOM 3 LAYERS	PUSH BTN	PUSH	randomized the current chosen track
90	LFO RST	PUSH BTN	PUSH	

91	LFO ON/OFF	PUSH BTN	TOGGLE	
92	CV GATE LINK	PUSH BTN	TOGGLE	
93	CV ADD reset	PUSH BTN	PUSH	
94	CVP ADD reset	PUSH BTN	PUSH	
95	CVR ADD reset	PUSH BTN	PUSH	
96	GP ADD reset	PUSH BTN	PUSH	
97	GL ADD reset	PUSH BTN	PUSH	
98	GLP ADD reset	PUSH BTN	PUSH	
99	GLR ADD reset	PUSH BTN	PUSH	
100	R ADD reset	PUSH BTN	PUSH	
101	RP ADD reset	PUSH BTN	PUSH	
102	RVP ADD reset	PUSH BTN	PUSH	
103	OCTAVE DOWN	PUSH BTN	PUSH	
104	OCTAVE UP	PUSH BTN	PUSH	

Appendix 2 - Button Assignment

(Include full list of assignable button functions)

EME BUTTONS	
Next Part	push
Previous part	push
Next Part	push
Previous part	push
Pattern Mode	push
Play Parts Mode	push
Duplicate	push
Save Current Project	push
Project Mode	push
Gate Rec Mode	push
CV Keyboard Rec Mode	push
MIDI Keyboard Rec Mode	push
Free Play Mode	push
Fill 1	push
Fill 2	push
Fill 3	push
Fill 4	push
Fill 5	push
Fill 6	push
Fill 7	push
Fill 8	push
Mute 1	toggle
Mute 2	toggle
Mute 3	toggle
Mute 4	toggle
Mute 5	toggle
Mute 6	toggle
Mute 7	toggle
Mute 8	toggle
Random Selected 1 Layer	push
Random Selected 3 Layer	push
Random Focus 1 Layer	push
Random Focus 3 Layer	push
Focused LFO Reset	push

Focused LFO On/Off	toggle
Freeze	push
Revert	push
Nudge Back Coarse	push
Nudge Back Fine	push
Nudge Forward Fine	push
Nudge Forward Coarse	push
Mute Mode	push
Fill Mode	push
Next pattern to edit	push
Previous pattern to edit	push
play song	push
octave down	push
octave up	push