Winter Modular Eloquencer Manual

Eloquencer OS V1.2.0

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.

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:

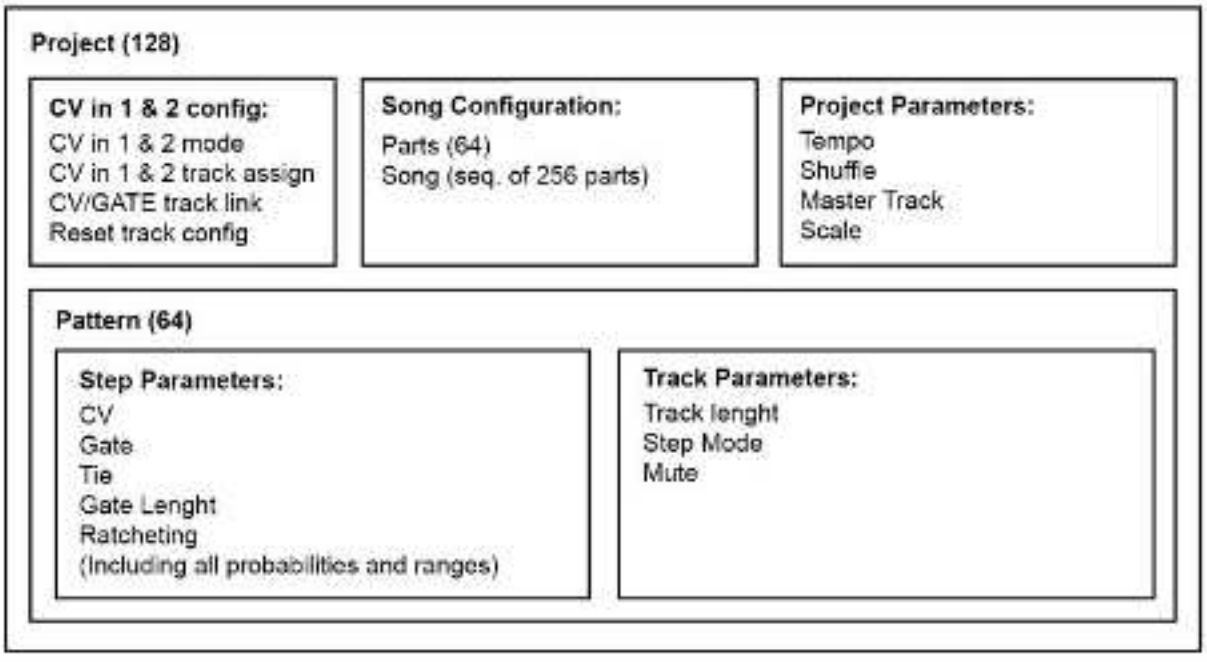
- ❏ Track start/end point length independent for each track
- ❏ Gate probability independent for each step
- ❏ Tie notes
- ❏ CV, CV Variation Probability, and CV Variation. Probability range adjustable for each step or track.
- ❏ Gate Length, Gate Length Variation Probability, and Gate Length Variation. 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
- ❏ Adjustable Tempo and Shuffle
- ❏ 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) and Free Play mode.
- ❏ 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
- ❏ MOD Mode (available soon)
- ❏ 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 and step modes.

System Structure

The project is at the top level of the system structure. It's composed of a group of 64 patterns with common characteristics like configuration, tempo and shuffle.

The total amount 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.

All patterns in a project share the same Scale setting.

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

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

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.

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.

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 backup 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

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.

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…

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 send multiplications and divisions of the internal clock.

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 for the step 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.

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 buttons:

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

Track Buttons:

Used to choose which track to edit; to enable, disable, or assign tracks within the different modes and functionalities; or to switch between banks in Pattern, Song and Project modes.

In LIVE REC mode pressing a track button for more than 1/2 second will delete the corresponding track.

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

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 those modes if you press them for less than 1/2 second.

In GATE REC (LIVE REC) the step buttons from 1 to 8 can also be used to record gates

OLED Screen:

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:

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.

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 to the step (e.g., C4).

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 an scale that only have 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 it's closer to C4.

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 vary, hold the desired step and rotate 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%

1	0,0%
2	14,3%
3	28,6%
4	42,9%
5	57,1%
6	71,4%
7	85,7%
8	100,0%

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 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 range limits surrounding the nominal note and the range in numerical values.

C5 >> Upper limit

C4 >> Nominal value

C3 >> Bottom limit

+/-12 >> Range

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 second Gate.

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%.

1	12,5%
2	25,0%
3	37,5%
4	50,0%
5	62,5%
6	75,0%
7	87,5%
8	100,0%

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 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 show the length value in numeric values.

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%).

1	0,0%
2	14,3%
3	28,6%
4	42,9%
5	57,1%
6	71,4%
7	85,7%
8	100,0%

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 Lenght	Gate Lenght Probability Range	Possible Gate Lenght Values if probability event occurs			
		1/128	1/64	1/32	1/16
1/128	2	X	X		
1/128	3	X	X	X	
1/128	4	X	X	X	X
1/64	2		X	X	
1/64	3		X	X	X
1/64	4	X	X	X	X
1/32	2			X	X
1/32	3	X		X	X
1/32	4	X	X	X	X
1/16	2	X			X
1/16	3	X	X		X
1/16	4	X	X	X	X

The nominal Gate Length value (the one chosen in the GATE LEN mode) defines the Gate Length that will normally be output (dark 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.

Ratcheting Edit Mode

Ratcheting

(Red lit RATCHET button)

There are nine different types of ratcheting divided into 3 groups:

- No ratcheting
- Duplets
  - xx
  - -x
- Triplets
  - xxx
  - xx-
  - x-x
  - -x-
  - -xx
  - --x

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

Ratcheting Probability

(Green lit RATCHET button)

In this mode we can set the 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.

1	0,0%
2	14,3%
3	28,6%
4	42,9%
5	57,1%
6	71,4%
7	85,7%
8	100,0%

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% of probability of a ratcheting type to change.

1	0,0%
2	14,3%
3	28,6%
4	42,9%
5	57,1%
6	71,4%
7	85,7%
8	100,0%

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” or “EXT” and press the encoder again. This parameter is stored globally in the global configuration not in the project file.

When using an external clock the incoming clock speed will be calculated in BPM and displayed in the OLED screen.

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.

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 inside 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 mode 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 asign 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 is a special user scale where you can decide which notes to add the your scale. Add or remove notes from the user scale 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.

Step Mode

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

Once the Step Mode is selected you will have to choose which tracks you want to modify. By default, every time you go into this mode all the tracks will be selected. Deselect the tracks you don't want to be affected and turn the rotary encoder to change the step mode.

In the Step Repetition Mode and the Clock Divider Mode you can choose the number of repetitions/divisions per step. Press the encoder to select the number of repetitions/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)

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 tracks 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).

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 focused on introducing melodies or CV Values and Gates a single track at a time (the notes or gates introduced are set to the closest gate). Once you are in CV Live Rec mode a chromatic keyboard will appear in the steps area. The active scale notes will be brighter. Choose the track you want to introduce a melody or CV change. Press the desired note in the desired moment. You can change the octave using the green buttons at the keyboard ends. At any moment you can change the track to record by pressing the desired track button.

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

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.

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.

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).

Mute

As the names 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.

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 this 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.”).

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 of the CV INPUT will define 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.

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

MUTE BIN:
The voltage of the 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.

Reset LFO
when receiving a trigger or a gate it will reset the stepped LFO

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 - Gate link

This parameter allows you to detach the CV output from the Gates in the specified tracks. If it's linked (track button is lit) the CV output will only change if a gate is active, if the link is inactive (track button is off) the CV value will change in each step independently from 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 reach 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.

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 this parameter to define the range where the random will occur. It can be defined in semitones for the first octave, and from there, in octave increments for a total of 9 octaves.

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" we will go back 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.

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

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.

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).

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

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