Morphor®

Sequencer
Quad Gate/CV

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Warranty

THIS PRODUCT IS COVERED BY MORPHOR'S LIMITED WARRANTY, FOR TWO YEARS FOLLOWING THE DATE OF PURCHASE (PROOF OF PURCHASE/INVOICE REQUIRED).
THIS WARRANTY COVERS ANY DEFECT IN THE MANUFACTURING OF THIS PRODUCT.

THIS WARRANTY DOES NOT COVER ANY DAMAGE OR MALFUNCTION CAUSED BY INCORRECT USE - SUCH AS, BUT NOT LIMITED TO: POWER CABLES CONNECTED BACKWARDS, WRONG POWER SUPPLY VOLTAGES, BACKWARDS OR REVERSED EURORACK BUS BOARD CABLE CONNECTION, EXCESSIVE VOLTAGE LEVELS, ABUSE OF THE PRODUCT, REMOVING KNOBS, CHANGING FACE PLATES, EXPOSURE TO EXTREME TEMPERATURE OR MOISTURE LEVELS, OR ANY OTHER CAUSES DETERMINED BY MORPHOR TO BE THE FAULT OF THE USER ARE NOT COVERED BY THIS WARRANTY, AND NORMAL SERVICE RATES WILL APPLY.

THE WARRANTY COVERS REPLACEMENT OR REPAIR, AS DECIDED BY MORPHOR. PLEASE CONTACT OUR CUSTOMER SERVICE (SUPPORT@MORPHOR.IO) FOR A RETURN AUTHORIZATION BEFORE SENDING THE MODULE. THE COST OF SENDING A MODULE BACK FOR SERVICING IS PAID FOR BY THE CUSTOMER. CHANGES AND/OR MODIFICATIONS TO THE MODULE NOT APPROVED BY MORPHOR COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

THE INSTRUMENT IS TO BE SHIPPED IN THE ORIGINAL PACKAGING ONLY. ANY INSTRUMENT SHIPPED TO US FOR RETURN, EXCHANGE, WARRANTY REPAIR, UPDATE OR EXAMINATION HAS TO BE IN ITS ORIGINAL PACKAGING! ALL OTHER DELIVERIES WILL BE REJECTED. THEREFORE, MAKE SURE YOU KEEP THE ORIGINAL PACKAGING AND TECHNICAL DOCUMENTATION.

PLEASE FOLLOW THE INSTRUCTIONS FOR USE OF THE INSTRUMENT CAREFULLY BECAUSE THIS WILL GUARANTEE PROPER OPERATION OF THE INSTRUMENT. DUE TO THE FACT THAT THESE INSTRUCTIONS TOUCH ON PRODUCT LIABILITY, IT IS ABSOLUTELY IMPERATIVE THAT THEY BE READ CAREFULLY. ANY CLAIM FOR DEFECT WILL BE REJECTED IF ONE OR MORE OF THE ITEMS HAS NOT BEEN OBSERVED. DISREGARD OF THE INSTRUCTIONS CAN VOID THE TWO YEARS COVERED BY WARRANTY.

Package Contents

In the Morphor Sequencer Quad Gate/CV box you will find:

- A Morphor Sequencer Quad Gate/CV module
- A 16-to-16-pin Eurorack power cable
- A 6-to-6 pin mini bus cable for daisy-chaining
- 2 high-quality thumb screws (knurlies)
- An original Morphor brand sticker

If any of the above items are missing, please contact your dealer or send an email to support@morphor.io.

Safety Instructions

I. Never use the instrument in a humid or wet environment, nor near flammable goods. The instrument must never be operated outdoors but solely in dry rooms.

II. No liquids or conducting substances must get into the instrument. Should this be the case, the instrument is to be disconnected from mains power immediately and examined, cleaned and possibly repaired by a qualified technician.

III. Never expose the instrument to temperatures above +50° C or below -10° C. Before operation, the instrument should have a temperature of at least 10° C. Do not expose the instrument to direct sunlight. Do not install the instrument near heat sources like heaters, open fire places, central heating etc. Keep the top of the instrument clear in order to allow proper ventilation, otherwise the instrument could eventually overheat.

IV. Never place heavy objects on the instrument.

V. Transport the instrument carefully, never let it drop or fall over. Make sure that during transport and in use the instrument is supported properly and cannot drop, slip or fall over because people might get injured.

VI. The instrument may only be used for the purpose described in this operating manual. Due to safety reasons, the instrument must never be used for other purposes.

Conformity

This device meets the requirements of the following standards and/or directives: 2014/30/EU, 2014/35/EU, 2009/125/EC, 2011/65/EU, 2012/19/EU, EN 60065, EN 55032, EN 55035. Please refer to the online Declaration of Conformity for detailed information regarding compliance.

Installation

Before you start

Morphor modules are designed to be used with an Eurorack compatible case and power supply. We recommend you to use a case with an adequate high-quality power supply. Before installing the module in your case, you must ensure your power supply has a free Eurorack standard PSU connector (2x8 pin header connector) and sufficient available capacity to power the module:

1. Make a separate sum of the +12 V, -12 V and +5 V maximum current draws respectively for all your modules, including the new one. The maximum current draw is specified in the manufacturer's technical specifications for each module. You can use a tool like ModularGrid to help you calculate the total values for your case.

2. Compare each of these sums to the specifications of your case's power supply.

3. Proceed only with the installation if none of the total values exceeds the power supply's specifications. Otherwise you must remove some modules to free up some capacity or upgrade your power supply to allow more capacity in your case. If you do not adequately power your modules, it may result in damage to your modules or power supply. If you are unsure, please contact us before proceeding.

4. Make sure your case has enough free space (HP) to fit the new module. To prevent screws or other debris from falling into the case and shorting any electrical contacts, do not leave gaps between adjacent modules, and cover all unused areas with blank panels. Similarly, do not use open frames or any other enclosure that exposes the backside of any module or the power distribution board.

Installing your module

Always turn off the power to the case and disconnect the power cable when installing or removing a module from your case to avoid injury or equipment damage.

The Morphor Sequencer Quad Gate/CV uses the -12 V, +12 V and +5 V rail of the power supply (using a standard Eurorack 2x8 pin connector). The red stripe of the included ribbon cable (-12 V side) must be oriented on the same side as the "RED -12 V" marking on the module and on your Eurorack power distribution board.

The module draws a maximum current of **95** mA from the +12 V rail, **11** mA from the -12 V rail and **123** mA from the +5 V rail.
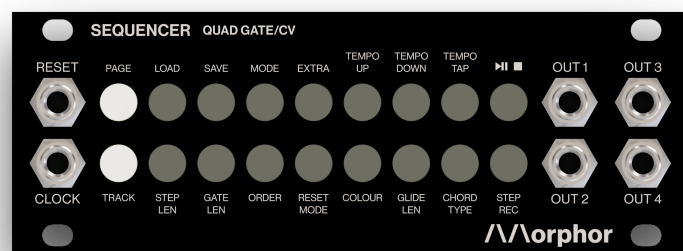

Power connector on the rear side of the module

Introduction

3 U version

1 U version

The **Morphor Sequencer - Quad Gate/CV** is a versatile tool for both live Eurorack performances and songwriting. This module can be configured as a **2-, 3-, or 4-track sequencer**, depending on the selected output configuration. It is available as a 3 U or 1 U module.

With flexible track configurations and intuitive **real-time step editing**, this sequencer offers a handy approach to sequencing in modular systems being only **4 HP** wide. Whether you're controlling gates, CVs, or a combination of both, this module adapts to your creative needs with ease.

Key features include up to 4 independent tracks, each capable of holding up to **16 pages** containing up to **16 steps**. Users can configure tracks as **gate**, **CV**, or **combined gate/CV** tracks, and even set up triad **chords**. The module supports customizable step lengths, glide times, individual track playback orders and reset behaviors making it ideal for creative sequences.

This module can operate as a **standalone** unit using its internal clock or be easily synchronized with an external clock source for integrated use within a larger system. The **clock and reset jacks can function as both inputs or outputs**, allowing flexible configuration to match your setup.

For expanded setups, multiple Morphor Sequencer modules can be daisy-chained via the bus connection on the back, ensuring that clock and reset signals are shared seamlessly across all connected modules. This makes it easy to sync multiple sequencers for complex, multi-track performances or compositions.

Key Features

- Clock in/out
- Reset in/out
- Up to 4 tracks (output can be set to gate or CV)
- Tracks can have up to 16 pages of 16 steps
- Track length adjustable per track
- Mute/Solo tracks
- Page lengths adjustable per track
- Page cloning
- Gate length adjustable per track (from 0.5 ms to complete step length)
- Note value adjustable per track
- Compatible with different clock resolutions
- Up, Down, Pendulum, Pin-Pong, Random sequencer order per track
- Chord mode (1 Gate + Triad CV)
- Arpeggiator
- Glide between notes (adjustable glide time)
- Probability per step
- Gate/Trigger/Pulse
- Live Gate/CV mini keyboard
- Multiple modules can be daisy-chained with bus cable
- Built-in clock
- Save and load songs
- USB-C
- Firmware update through website
- High quality RGB buttons
- Available as 3 U module (4 HP wide)
- Available as 1 U module (22 HP wide)

Controls & Connections
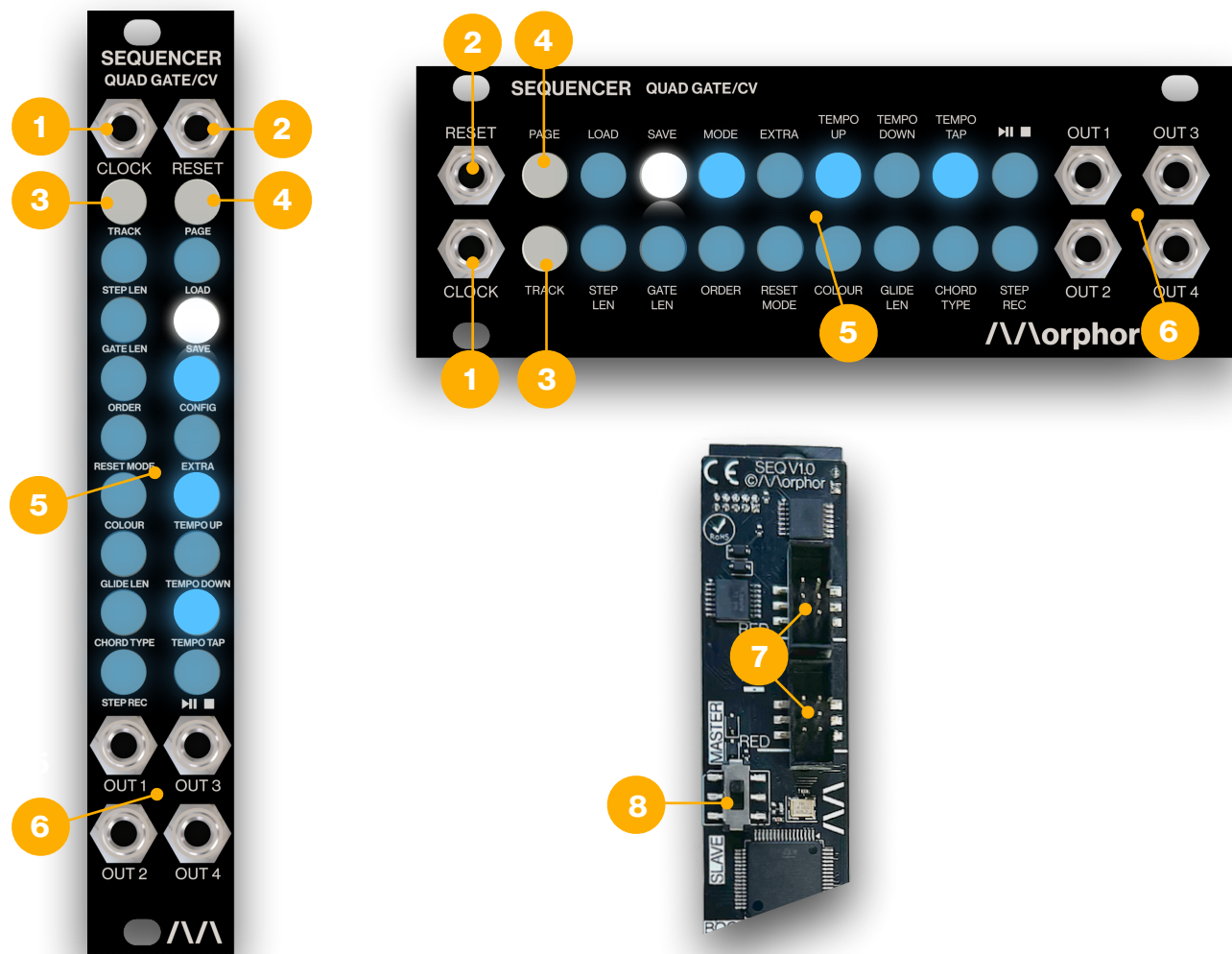
Rear side of the module

[1] CLOCK
Clock input/output. Default set as output.

[2] RESET
Reset input/output. Default set as output.

[3] TRACK BUTTON
Push button with integrated RGB LED. Short press to access the Track Select menu, long press to enter Track Settings. It also serves as an auxiliary button in certain situations.

[4] PAGE BUTTON
Push button with integrated RGB LED. Short press to access the Track Page Select menu, long press to enter Global Settings. It also serves as an auxiliary button in certain situations.

[5] STEP BUTTONS
Sixteen push buttons with integrated RGB LEDs. Primarily used to Edit Steps and Notes, but also serve functions in menus navigation and visualization.

[6] OUTPUTS
Four outputs that can function as gate/trigger or CV outputs, with a range from 0 V to +8 V.

[7] BUS CONNECTORS
Daisy-chain connectors on the back. To connect to other Morphor Sequencer modules.

[8] MASTER/SLAVE SELECT SWITCH
Select the mode of the module when daisy-chaining multiple modules.

Quick Start Guide

1. **Install the Sequencer in Your Eurorack Case**
   ✓ Ensure the case power is off before installing and connect the module with the included power cable, making sure the red stripe aligns with the -12 V rail.

2. **Select Module Configuration**
   ✓ On the first start, the sequencer is set as **1x Gate/CV Track** (using output 1 for gate and output 2 for CV) and **2x Gate Tracks** using output 3 and 4 respectively.
   ✓ To change this, access the Global Settings menu by long-pressing the **PAGE** button.
   ✓ Navigate to the Configuration menu by pressing CONFIG .
   ✓ Choose from the yellow button options (see below) and exit the Global Settings by pressing the **PAGE** button again:
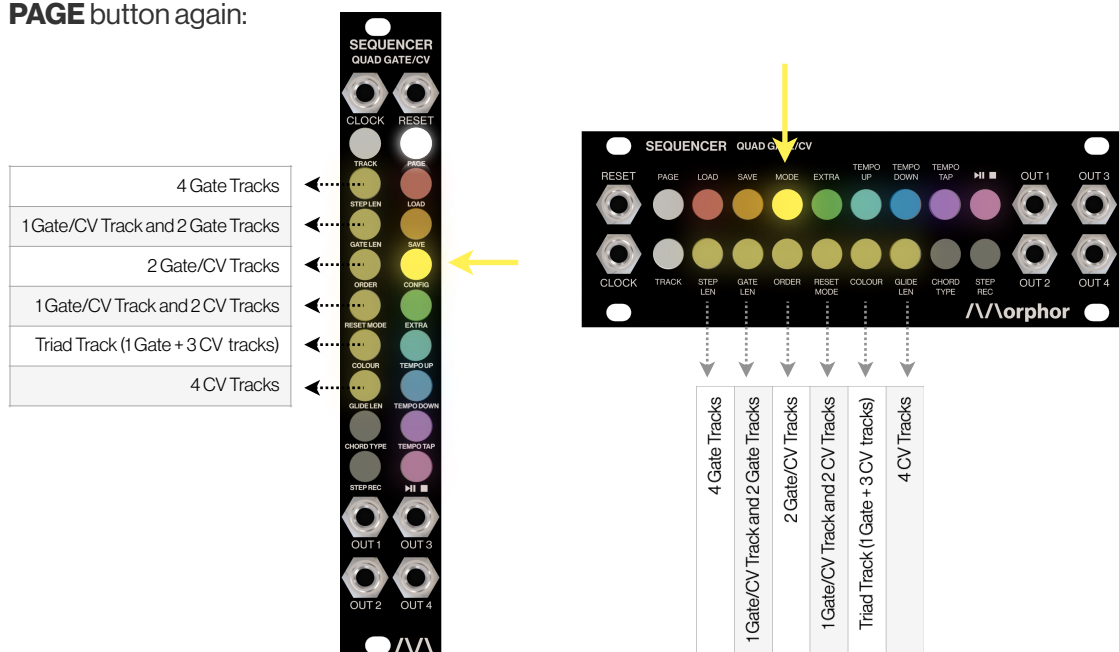
3. **Select a Track**
   ✓ The first track is selected by default. The select another, press the **TRACK** button to enter the Track Select menu.
   ✓ Available tracks will be indicated by the buttons corresponding to output jacks.
   ✓ Press the button associated with the track you wish to select.

4. **Start Sequencing**
   ✓ Activate or de-activate steps using the step buttons.
   ✓ To set a Pitch/CV for a track with CV, long press a step button, select a note on the keyboard and exit by pressing **TRACK** or **PAGE**.
   ✓ If you go to the Track Settings by long-pressing the **TRACK** button, you can configure settings like Step Length (**STEP LEN**), Gate Length (**GATE LEN**), Playing Order (**ORDER**), Glide Length (**GLIDE LEN**) and more...

5. **Play/Stop**
   ✓ The sequence is already playing by default. But you can press the ▶❚❚■ button in the Global Settings menu to pause or restart the sequence.
   ✓ Long-press it to stop the sequence and reset the playhead.

6. **Happy Morphing!**
   Explore this manual further to discover all the possibilities and features available....

Track Select

The sequencer can only show one track at a time. To select a specific track for viewing or editing, follow these steps:

1. **Activate Track Selection Mode:** Short press the **TRACK** button (it is the white top left menu button).

2. **Identify Available Tracks:** The **TRACK** button will start blinking white, and the available tracks will be indicated by the bottom four buttons. Each of these buttons corresponds to an output jack.
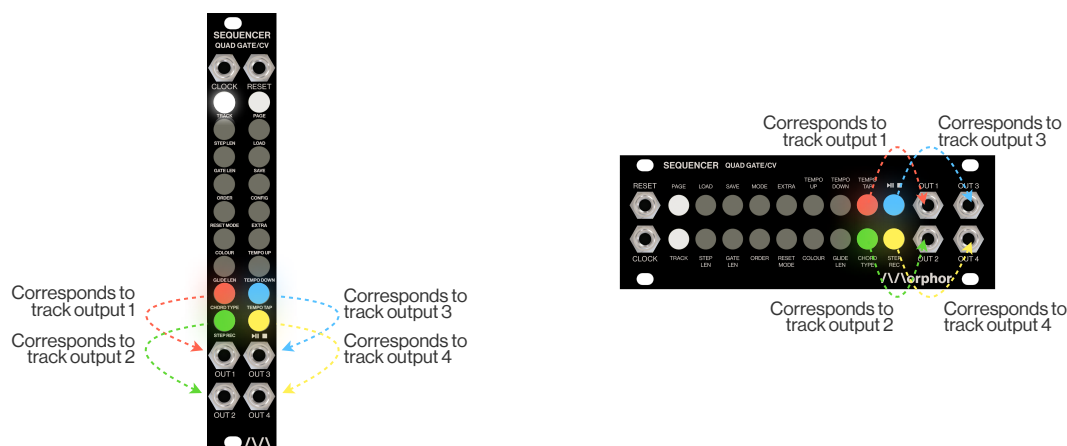
Notes:
Depending on your track configuration, if there is a button with the same color as the one above it (but dimmer), this indicates that the output is combined with the gate output above it.

A dim track color indicates a totally empty track and a brightly lit track button indicates a track containing events.

3. **Select a Track:** Press one of the indicated track buttons to select the desired track. The module will now automatically exit the track selection mode and display the current track using the track color.

Note: A dimly lit track button indicates that the track is totally empty, while a brightly lit track button indicates that the track contains active steps and/or pages.

To cancel or quit the Track Select menu without selecting a track, press the track button again.

Track Type	Default Colors
GATE	RED GREEN BLUE YELLOW
CV	INDIGO PINK ORANGE CYAN
GATE/CV	RED BLUE (gate is indicated with a bright LED and a CV with a dim LED)
TRIAD	RED (gate is indicated with a bright LED and the three CVs with a dim LEDs)

Default colors used for different track types

Track View

Playhead

When the sequence is playing, a cursor (or playhead) is indicated by a step button illuminated in bright white. This cursor scrolls through the steps of the currently selected track. To view or select another track, refer to the Track Select section. Only one track can be visible at a time and the color of the step buttons corresponds to the track color: brightly lit buttons represent active steps, while dimly lit buttons indicate inactive steps.

Page Cursor

By default, when there is more than one page in a track, the currently playing page number is indicated as a blinking cursor (dim white color to distinguish it from the playhead cursor's bright white color).

Auto-Scroll Mode

By default, when in auto-scroll mode, the module will always display the currently playing page and automatically scroll to the next page as it progresses.

Non-Auto-Scroll Mode

When a specific page is selected (see Track Page Select), auto-scroll mode is disabled automatically, and the selected page will remain visible throughout the entire playback. You can edit this page while the sequence runs in the background. As the sequence is playing, the playhead cursor will continue to scroll and will only be visible when the sequence is currently playing on the visible page.

To return to auto-scroll mode, press the **PAGE** button twice.
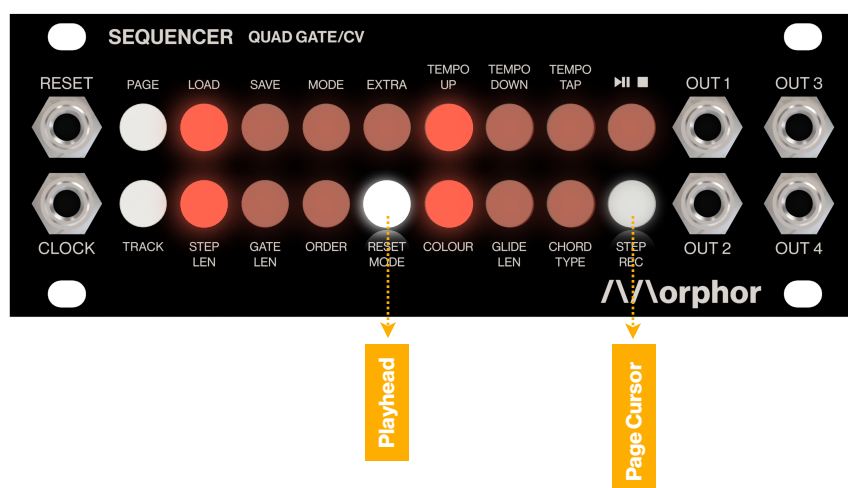
Track Length

A track can hold a maximum of 16 pages (each of maximum 16 steps, see Track Page Length to adjust the amount of steps per page). By default, a track has one page. You can adjust the length of a track as needed.

Extend the Number of Pages with Empty Pages

1. **Select the Correct Track:** Ensure you are viewing the desired track. Refer to the Track Select sections for guidance.

2. **Enter Page Selection Mode:** Short press the **PAGE** button. The page button will start blinking white and you will see the available pages of the track (default = 1 page).

3. **Add Empty Pages:** Press an empty page slot to extend the track length to that page amount. The track length will be extended and filled with empty pages accordingly. You can now select a page or exit the page selection menu by pressing the **PAGE** button.

Extend the Number of Pages with Cloned Pages

1. **Select the Correct Track:** Ensure you are viewing the desired track and track page. Refer to the Track Select sections for guidance.

2. **Enter Page Selection Mode:** Short press the **PAGE** button. The **PAGE** button will start blinking white and you will see the available pages of the track (default = 1 page).

3. **Add Page Clones:** Press and hold the **PAGE** button, then press one of the page buttons outside the current track length. The track length will be extended and filled with cloned pages of the current last page. Make sure to select the desired track length button before the long-press action of the **PAGE** button is triggered.

Reduce the Number of Pages

1. **Select the Correct Track:** Ensure you are viewing the desired track. Refer to the Track Select sections for guidance.

2. **Enter Page Selection Mode:** Short press the **PAGE** button. The page button will start blinking white and you will see the available pages of the track (default = 1 page).

3. **Set New Track Length:** Press and hold the **PAGE** button, then press one of the 16 step buttons to define the desired track length (range: 1–16 pages). Make sure to select the step button before the long-press action of the **PAGE** button is triggered.

   Note: Reducing the number of pages will permanently delete the content of the removed pages.

Track Page Select

To jump to a specific page of the currently selected track for viewing or editing, follow these steps:

1. **Select the Correct Track:** Ensure you are viewing the desired track. Refer to the Track Select sections for guidance.

2. **Enter Page Selection Mode:** Short press the **PAGE** button. The **PAGE** button will start blinking white and you will see the available pages of the track (default = 1 page).

3. **Select a Track Page:** Press one of the illuminated page buttons to select the desired track page.

4. **Confirm Selection**: The module will now automatically exit the track page select menu and display the current track page. The module is now in **non-auto-scroll** mode. This means when the sequencer is playing, the track page will remain visible so you can edit this track page while the sequence keeps playing in the background. Refer to the Non-Auto-Scroll Mode section for more details.

Note:
A dimly lit page button indicates that the page is empty, while a brightly lit page button indicates that the page contains active steps.

Track Page Length

A track page can hold a maximum of 16 steps. By default, a page has a length 16 non-activated (i.e. empty) steps. You can adjust the length of a track page as needed.

Reduce the Number of Steps

1. **Select the Correct Track and Track Page:** Ensure you are viewing the desired track and track page. Refer to the Track Select and Track Page Select sections for guidance.

2. **Set New Page Length:** Press and hold the **PAGE** button, then press one of the 16 step buttons to set your new desired page length (range: 1-16 steps). Make sure to select the step button before the long-press action of the **PAGE** button is triggered.

Extend the Number of Steps with Empty Steps

1. **Select the Correct Track and Track Page:** Ensure you are viewing the desired track and track page. Refer to the Track Select and Track Page Select sections for guidance.

2. **Add Empty Steps:** Press an empty step slot to extend the page length. The page length will be extended and filled with non-activated steps accordingly.

Extend the Number of Steps with Filled Steps

1. **Select the Correct Track and Track Page:** Ensure you are viewing the desired track and track page. Refer to the Track Select and Track Page Select sections for guidance.

2. **Add Filled Steps:** Press and hold the **PAGE** button, then press one of the steps outside the current page length. The page length will be extended and filled with activated steps accordingly. Make sure to select a new page length before the long-press action of the **PAGE** button is triggered.

Edit Steps

To edit steps on a track page, follow these steps:

1. **Select the Correct Track and Track Page:** Ensure you are viewing the desired track and track page. Refer to the Track Select and Track Page Select sections for guidance.

2. **Edit Steps:** Whether the sequencer is playing or paused, you can edit the steps by short pressing a step button. This will activate or deactivate the step on the current visible track page. You can edit the steps live regardless of whether the track is in Auto-Scroll or Non-Auto-Scroll mode.

   Activated Step: Brightly lit.
   Deactivated Step: Dimly lit (or completely off when using the lowest LED Brightness setting).

Notes:
When you deactivate a step on a CV track, the CV value from the previous active step is either retained (meaning the CV value of the deactivated step will be ignored) or set to 0 V depending on your selected CV mute option in the Output Voltage Settings.

Gates remains high for the step length minus 1 pulse to ensure a gate-off event. However, if the clock resolution is 1 PPQN or the step length is set to 1 pulse, no gate-off event will occur, and the gate will remain high between consecutive activated steps.
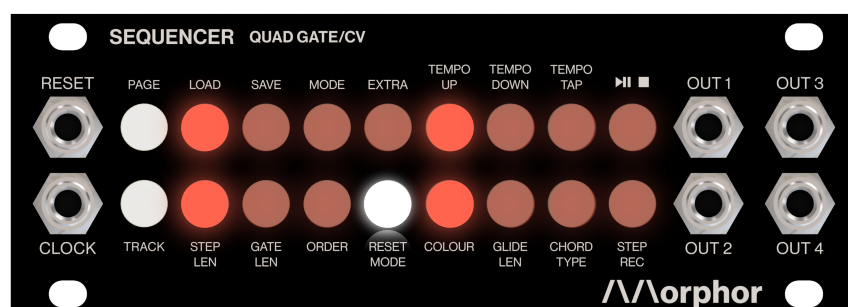
Tie Steps

The steps of tracks that have a gate/trigger output can be tied together. To tie steps, do the following:

1. **Select the Correct Track and Track Page:** Ensure you are viewing the desired track and track page. Refer to the Track Select and Track Page Select sections for guidance.

2. **Tie Steps:** Press and hold two steps to tie them. The tied steps will be colored with the complementary color of the track color. If there are more steps between the beginning step and the end step, all intermediate steps will also be tied together.

3. **Untie Steps:** To untie steps, simply press any step in the chain.

Notes:
The gate/trigger output will remain high during the entire period of the tied steps.

If the gate/trigger length is set to a value shorter than a complete step length, the gate will still remain high for the full duration of the tied steps period.

When steps are not tied, the gate remains high for the step length minus 1 pulse to ensure a gate-off event. However, if the clock resolution is 1 PPQN or the step length is set to 1 pulse, no gate-off event will occur, and the gate will remain high between consecutive activated steps.

Edit Note/Pitch CV

Pitch/Note CV can be set for steps of tracks that have a CV output. To edit the Pitch/Note CV, follow these steps:
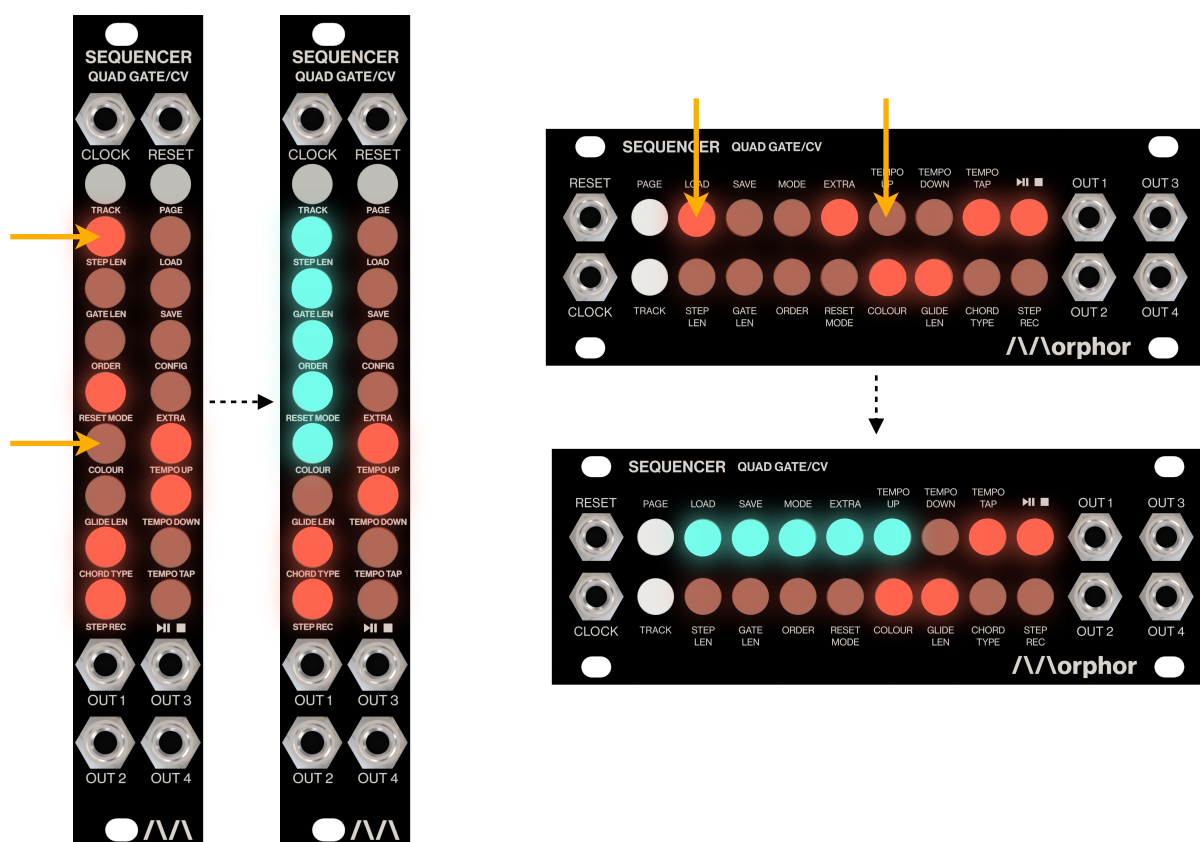
1. **Select the Correct Track and Track Page:** Ensure you are viewing the desired track and track page. Refer to the Track Select and Track Page Select sections for guidance.

2. **Enter Note/Pitch Edit Mode:** Long-press the step where you want to edit the pitch/note CV. A one-octave keyboard will appear, using bright white color for white keys and dim white color for black keys.

3. **Select the Octave (optional):** Decrease or increase the octave by using the octave buttons indicated with the octave color.

4. **Set the Desired Note:** Press the desired note on the keyboard layout. To exit the note/pitch edit mode menu press the **TRACK** or **PAGE** button.

Note:
The CV output voltage range is 0-8 V. 1 V/Oct, 1.2 V/Oct, or Hz/V are supported and can be set in the Global Settings.

Octave	Colors
1	RED
2	ORANGE
3	YELLOW
4	GREEN
5	CYAN
6	BLUE
7	INDIGO
8	PINK

Octave colors

Octave Buttons
(use to lower or rise the octave of the note)

Octave Buttons
(use to lower or rise the octave of the note)

The 3 U module mimicking a one-octave piano keyboard

The 1 U module mimicking a one-octave piano keyboard

Edit Probability

You can set a probability value for each step. At 100%, an active step will always be performed, while at 12.5%, the probability of the step being performed is very low.
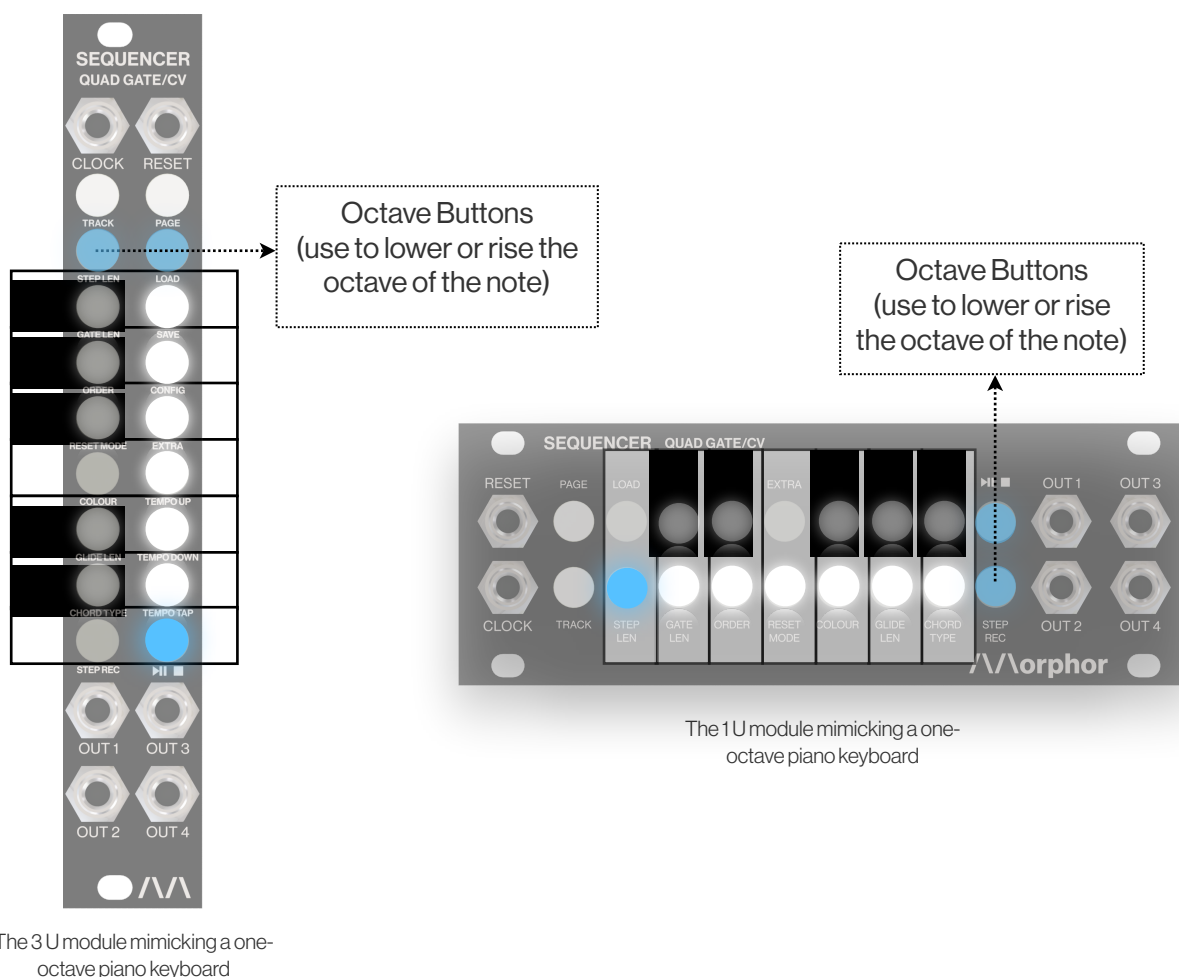
1. **Select the Correct Track and Track Page:** Ensure you are viewing the desired track and track page. Refer to the Track Select and Track Page Select sections for guidance.

2. **Enter Step Probability Mode:** Press and hold the **TRACK** button, then press one of used steps of the page. Make sure to select the step button before the long-press action of the **TRACK** button is triggered.

3. **Select the Desired Probability:** Press on one of the probability values starting at the top at 12.5, 25%, 37.5%, 50%, 62.5%, 75%, 87.5%, 100% (default). The module will automatically exit the probability menu and return to the Track View.

Track Page Skip

One or more track pages can be skipped from the sequence. To skip a page, follow these steps:

1. **Select the Correct Track:** Ensure you are viewing the track where you want to skip some pages. Refer to the Track Select.

2. **Enter Page Selection Mode:** Short press the **PAGE** button. The **PAGE** button will start blinking white and you will see the available pages of the track (default =1 page).

3. **Skip the Page**: Press and hold the **TRACK** button, then press the page button corresponding to the page you want to skip. (Make sure you press this button before the long-press action of the **TRACK** button is triggered). The LED will change to the complementary color of the track to indicate the page is set to be skipped.

    To un-skip a page, follow the same steps. The LED will return to the normal track color—bright for pages with active steps and dim for pages without active steps.

Example of a track page selection menu showing 5 pages. The third and fifth will be skipped. (Page 1 and 3 have active steps, the other pages don't).
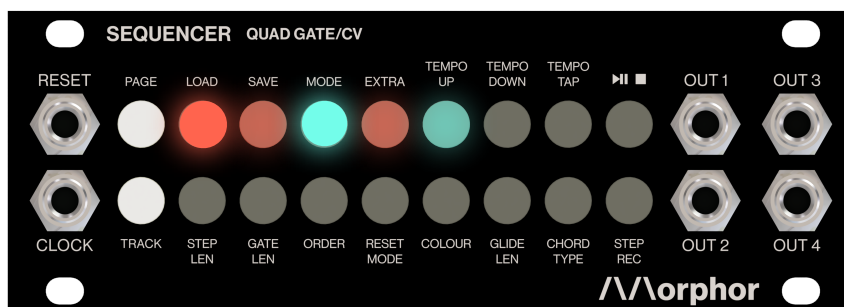
Example of a track page selection menu showing 5 pages. The third and fifth will be skipped. (Page 1 and 3 have active steps, the other pages don't).

Track Page Clear

To completely clear or empty a page (i.e. delete all steps, tie values, probabilities, and, if applicable, clear all CV values), follow these steps:

1. **Select the Correct Track:** Ensure you are viewing the desired track. Refer to the Track Select.

2. **Enter Page Selection Mode:** Short press the **PAGE** button. The **PAGE** button will start blinking white and you will see the available pages of the track (default = 1 page).

3. **Clear the Page**: Long-press the **PAGE** button of the page you want to clear. The page will now be emptied, and the LED will dim slightly to indicate that the pattern has been cleared.

Example of a track page selection menu showing 5 pages. The third and fifth will be skipped. (Page 1 and 3 have active steps, the other pages don't).
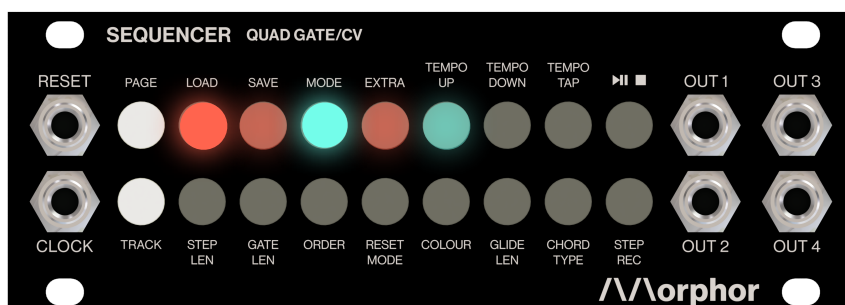
Example of a track page selection menu showing 5 pages. The third and fifth will be skipped. (Page 1 and 3 have active steps, the other pages don't).

Track Clear

To completely clear or empty a track (i.e. delete all steps, tie values, probabilities, clear pages, and, if applicable, clear all CV values), follow these steps:

1. **Activate Track Selection Mode:** Short press the **TRACK** button (the white top left menu button).

2. **Clear a Track:** Long-press one of the available track buttons to delete all events in the track. The **TRACK** button LED will by dimmed to indicate a totally empty track.

Note:
While in the track selection menu, a dimly lit track button indicates that the track is totally empty, while a brightly lit track button indicates that the track contains active steps and/or pages.

Example of Track Selection Mode for a 4-track configuration where the green track is empty.
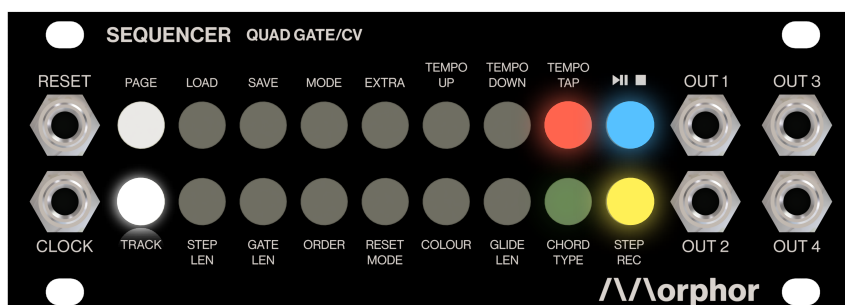
Example of Track Selection Mode for a 4-track configuration where the green track is empty.

Track Mute

To mute a track, follow these steps:

1. **Activate Track Selection Mode:** Short press the **TRACK** button (the white top left menu button).

2. **Mute a Track:** Press and hold the **TRACK** button, then press on a track button you want to be muted. The muted track button LED will now start blinking to indicate it is muted. Make sure to select the track to be muted before the long-press action of the **TRACK** button is triggered.

3. **Unmute a Track:** Same procedure as step above. Press and hold the **TRACK** button, then press a track button you want to unmute. The chosen track button LED will now stop blinking to indicate it is unmuted. Again make sure to select the track to be un-muted before the long-press action of the **TRACK** button is triggered.

Track Solo

To solo a track, follow these steps:

1. **Activate Track Selection Mode:** Short press the **TRACK** button (the white top left menu button).

2. **Solo a Track:** Press and hold the **PAGE** button, then press a track button you want to be soloed. All other muted tracks will start blinking to indicate they are muted. Make sure to select the track to be soloed before the long-press action of the **PAGE** button is triggered.

3. **Un-Solo (Un-Mute All Tracks):** To return all tracks to play, press and hold the **PAGE** button again, and then press the button of the soloed track. This will unmute all tracks.

Notes:
- *Muted gate tracks hold the gate output low the whole time.*
- *Muted cv tracks hold their last cv value.*
- *Muted gate/cv tracks hold their last cv value and hold the gate low the whole time.*
- *A muted triad track keeps its last CV values and holds the gate low the whole time.*

Track Settings

Track Settings can be set for each track individually. To change Track Settings, do the following steps:

1. **Select the Correct Track:** Ensure you are viewing the desired track. Refer to the Track Select.

2. **Enter Track Settings Menu:** Long-press the **TRACK** button to enter the Track Settings menu. When in the Track Settings menu, the **TRACK** button LED will remain steadily bright white. From here, you can access the individual track setting submenus in the other button column/row.

3. **Select a Track Setting Submenu:** Press the desired submenu button. Each available track setting submenu is indicated by a distinctive color, while unlit LEDs indicate submenus that are not available for the currently selected track. When the submenu is active, the corresponding LED will be bright and the submenu options will be listed in the other button column/row in the same color as the submenu button.

   Note: A short text under each button helps you remember which setting submenu corresponds to which button.

   To cancel or quit the Track Settings menu, press the **TRACK** button again.

   The following track setting submenus are available:
   - ◉ **STEP LEN**: Set step length
   - ◉ **GATE LEN**: Set gate length
   - ◉ **ORDER**: Set track sequence playing order
   - ◉ **RESET MODE**: Set track sequence reset behavior
   - ◉ **COLOUR**: Set track colour
   - ◉ **GLIDE LEN**: Set glide length
   - ◉ **CHORD TYPE**: Set chord type and arpeggiator
   - ◉ **STEP REC**: Enter step record mode
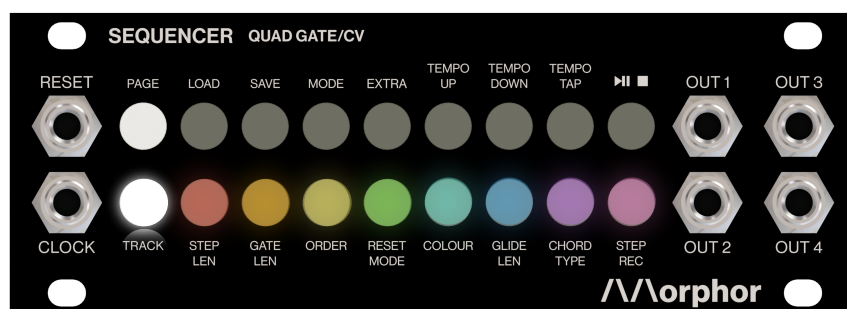
Step Length

In this submenu, you can change the step length (i.e., "note value") of the selected track. This step length is the same for all steps in the selected track and the note values depend on the global Clock Resolution setting. The step length is a whole number of clock pulses. The minimum step length in pulses is 1 and the maximum is 16 or 24 depending on the active Clock Resolution.

To change the step length for the selected track, do the following:

1. **Access the Step Length Submenu:** From the Track Settings menu, press the **STEP LEN** submenu button.

2. **Select a Step Length:** In the red button column/row, choose a step length. A bright LED indicates the currently selected step length.

Step Length 24 PPQN		Step Length 16 PPQN		Step Length 12 PPQN		Step Length 8 PPQN		Step Length 4 PPQN		Step Length 1 PPQN	
Clock Pulses	Note Value	Clock Pulses	Note Value	Clock Pulses	Note Value	Clock Pulses	Note Value	Clock Pulses	Note Value	Clock Pulses	Note Value
1		1		1		1		1		1	
2		2		2		2		2		2	
3		3		3		3		3		3	
4		4		4		4		4		4	
6		6		6		6		6		6	
8		8		8		8		8		8	
12		12		12		12		12		12	
24		16		24		16		16		16	

Corresponding note values for different step lengths at different PPQN clock resolutions.

Same options on the 1U module but selectable in the top row (from left to right).

Gate Length

In this submenu, you can adjust the gate lengths of the steps for the entire selected track. The gate length is a fixed, time-based value and can be set to the following options: 0 ms (gate completely off during the step), 0.5 ms, 5 ms, 10 ms, 20 ms, 30 ms, 40 ms, and the duration of a complete step.
By default, the gate length is equal to a complete step duration.

To change the gate length for the selected track, do the following:

1. **Access the Gate Length Submenu:** From the Track Settings menu, press the **GATE LEN** submenu button.

2. **Select a Gate Length:** In the other button column/row, choose a gate length. A bright LED indicates the currently selected gate length.

Note: The gate length setting is only available for tracks that support gates/triggers.
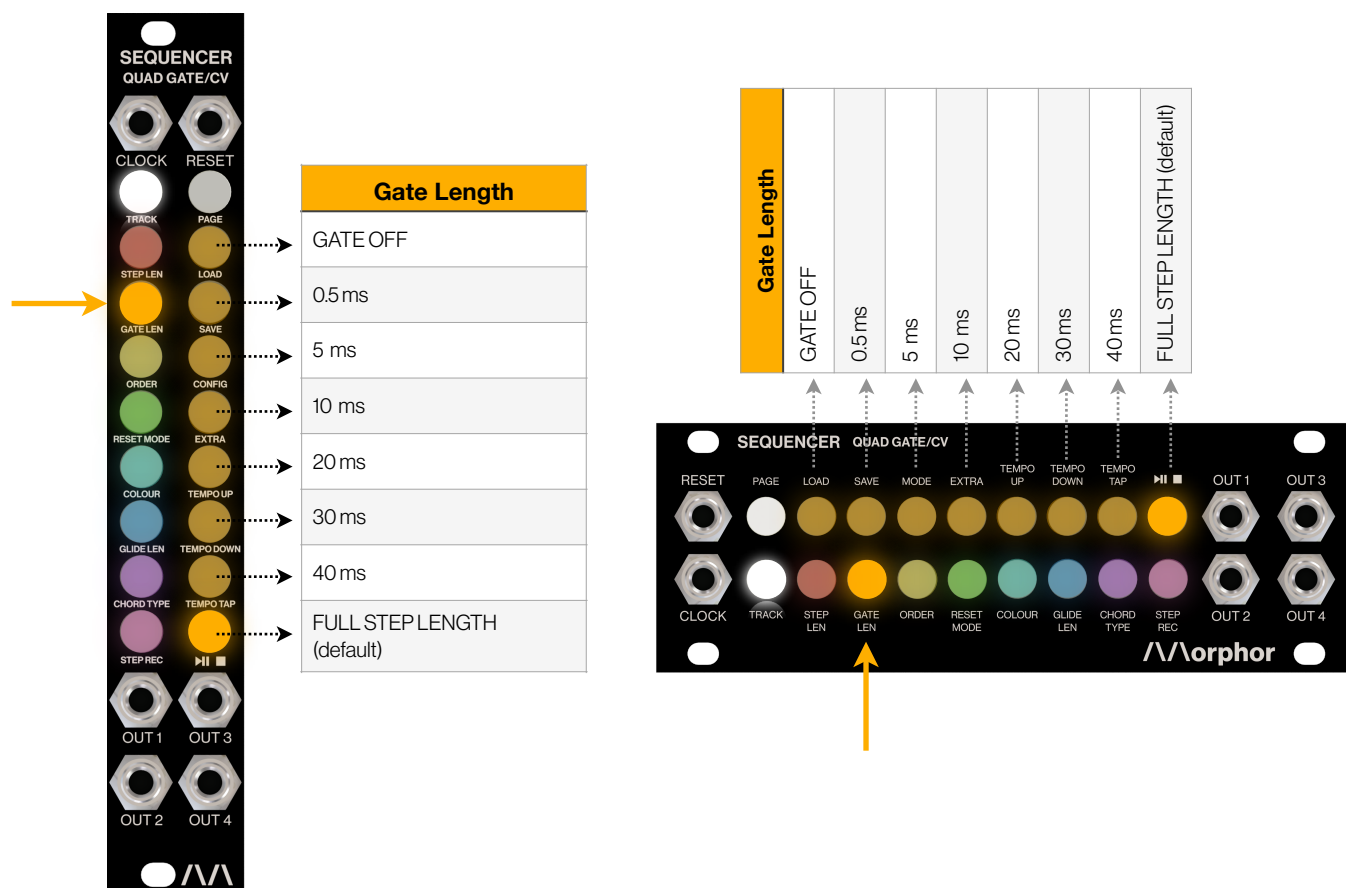
Playing Order

In this submenu, you can change the playing order of the track. By default, the sequence order is set to UP.

To change the sequence playing order for the selected track, do the following:

1. **Access the Playing Order Submenu:** From the Track Settings menu, press the **ORDER** submenu button.

2. **Select a Playing Order:** In the yellow button column/row, choose a playing order. A bright LED indicates the currently selected order.

Sequence Order
UP (default)
DOWN
UP/DOWN (pendulum)
UP/DOWN (ping-pong)
RANDOM
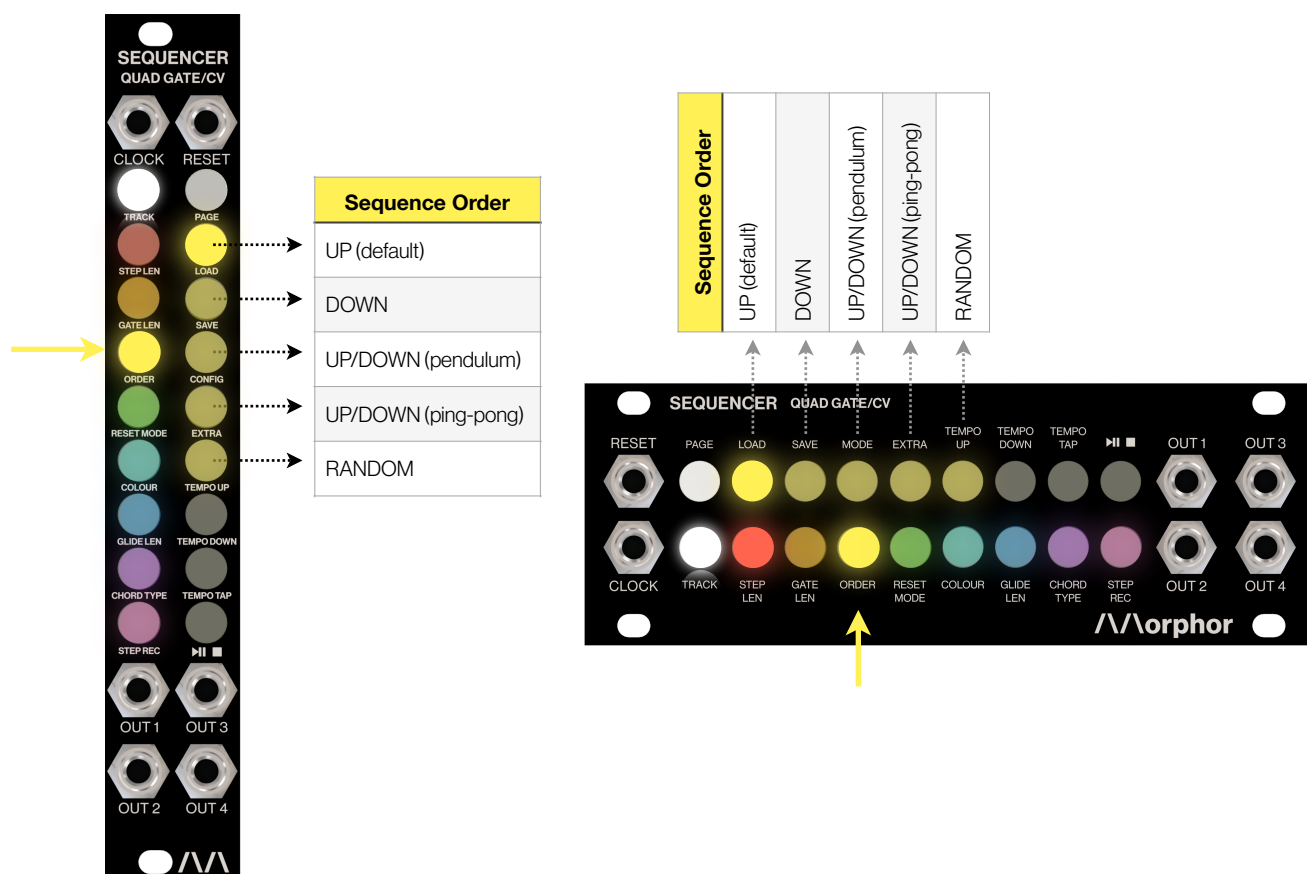
Note:
Pendulum: plays to the last step, then reverses direction, without repeating the first and last steps
Ping-Pong: plays to the last step, then reverses direction, repeating the first and last steps

Reset Mode

In this submenu you can set the reset mode for the selected track. This setting determines the behavior of the track when it reaches the end of the track. Depending on your reset jack setting (internal or external), several resets modes are available. Some settings allow multiple reset modes to be active.

To change the reset mode for the selected track, do the following:

1. **Access the Reset Mode Submenu:** From the Track Settings menu, press the **RESET MODE** submenu button.

2. **Select a Reset Mode Setup:** In the green button column/row, choose a reset mode. A bright LED indicates the current selection.

Reset Modes	Sends Output (*)
AUTO + EXTERNAL RESET (default)	YES
AUTO	NO
EXTERNAL RESET	NO
BY LONGEST TRACK	NO
BY LONGEST TRACK + EXTERNAL RESET	YES
AUTO + EXTERNAL RESET + BY LONGEST TRACK	YES
RANDOM IN TEMPO	YES
RANDOM FREE	YES

Sends Output (*)	Reset Modes
YES	AUTO + EXTERNAL RESET (default)
NO	AUTO
NO	EXTERNAL RESET
NO	BY LONGEST TRACK
YES	BY LONGEST TRACK + EXTERNAL RESET
YES	AUTO + EXTERNAL RESET + BY LONGEST TRACK
YES	RANDOM IN TEMPO
YES	RANDOM FREE

Reset mode definitions

Reset Mode	Description
AUTO	restarts this track automatically when track is finished
EXTERNAL RESET	restarts this track when an external trigger is received if module is set as reset input
BY LONGEST TRACK	restarts this track when the longest track is finished (can be this track)
RANDOM IN TEMPO	restarts this track on a random step (in sync with the tempo)
RANDOM FREE	restarts this track randomly (not in sync with the tempo)

(*) Sends a reset trigger pulse when the reset jack is configured as an output.

Colour

In this submenu, you can change the color of the selected track. By default, the module uses distinctive colors for different tracks and track types (see table below), but you can choose to use your own colors.

To change the colour of the selected track, do the following:

1. **Access the Colour Submenu:** From the Track Settings menu, press the **COLOUR** submenu button.

2. **Select a Colour:** In the cyan button column/row, choose a color. A bright LED indicates the currently selected color.

Colour
RED
ORANGE
YELLOW
GREEN
CYAN
BLUE
INDIGO
PINK
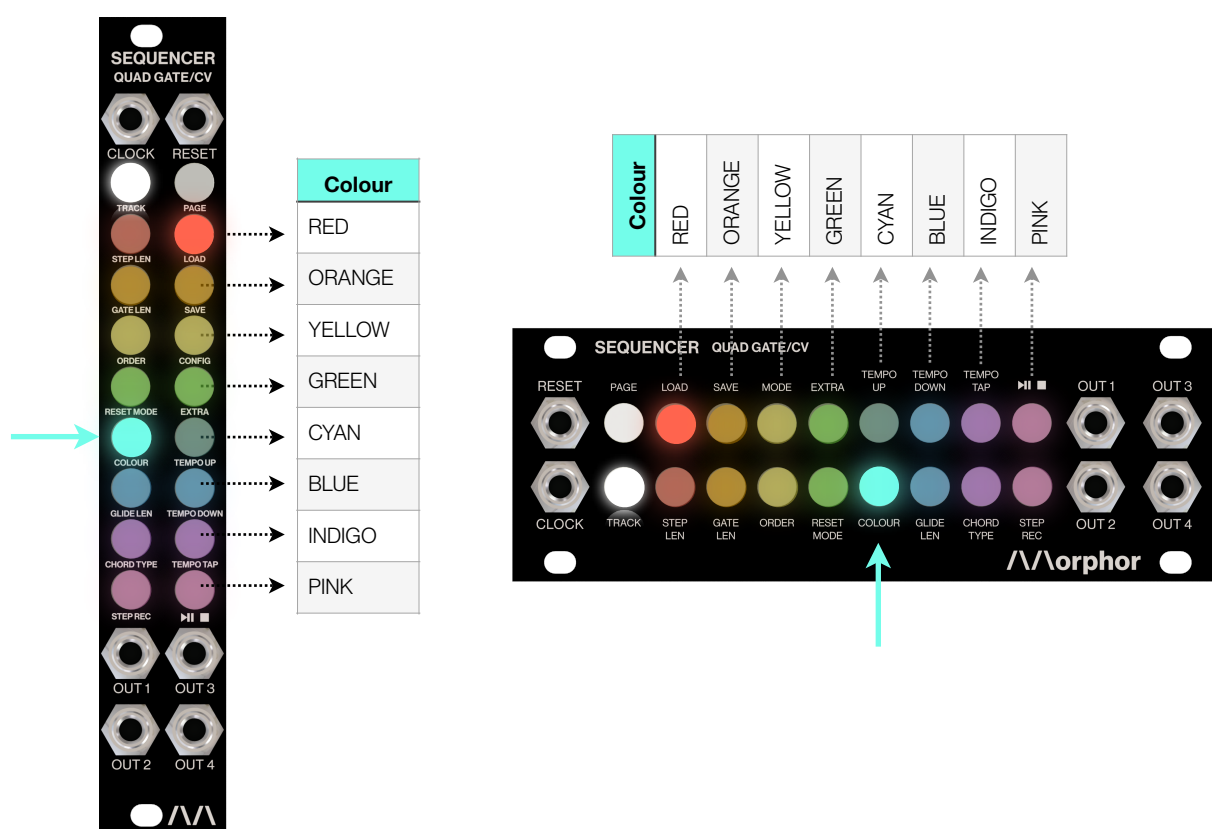
Glide Length

In this submenu, you can change the glide length used in the entire selected track. By default, glide is not activated.

To change the glide length for the selected track, do the following:

1. **Access the Glide Length Submenu:** From the Track Settings menu, press the **GLIDE LEN** submenu button.

2. **Select a Glide Length:** In the blue button column/row, choose a glide length setting. A bright LED indicates the currently selected glide length.

Note: The glide length setting is only available for tracks containing CV.
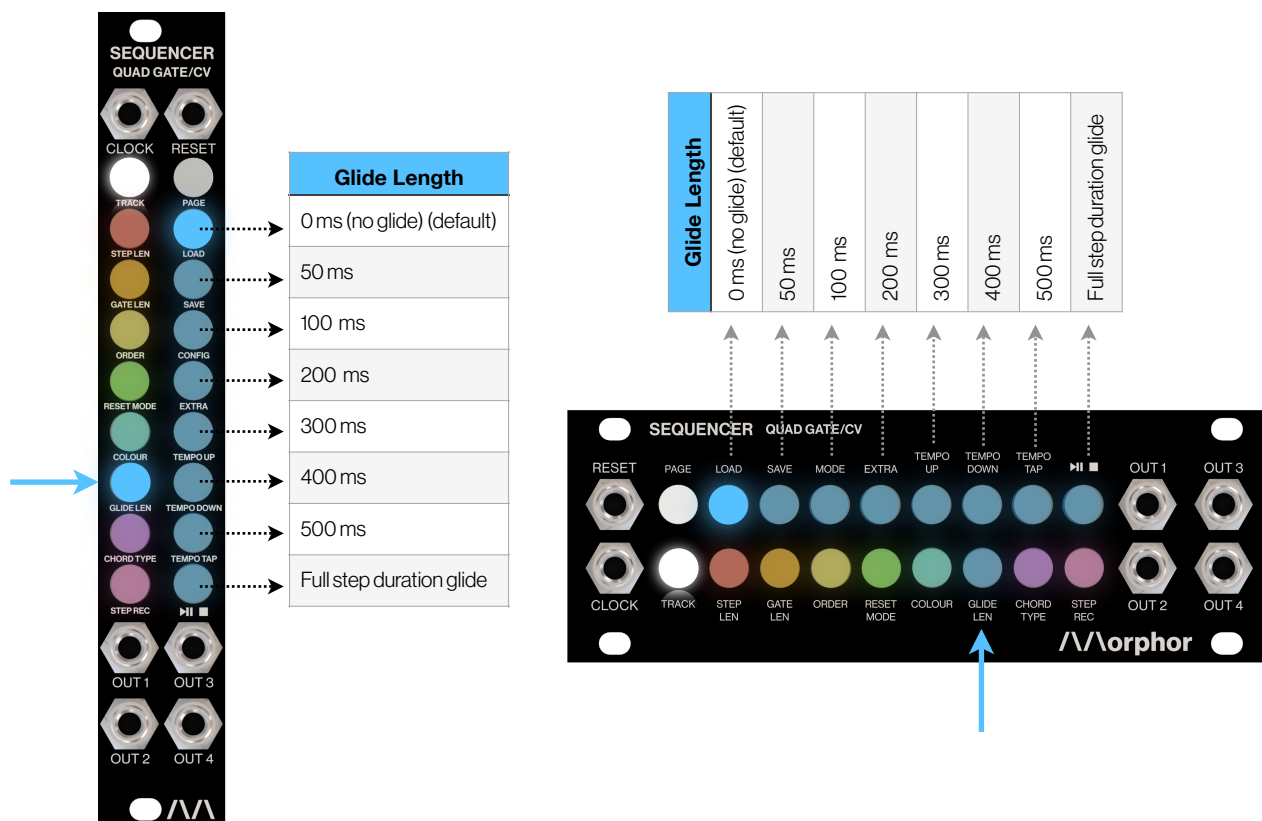
Chord Type

When the selected track is a Triad Track, this submenu is used to set the default triad chord type.

To change the chord type for the selected triad track, do the following:

1. **Access the Chord Type Submenu:** From the Track Settings menu, press the **CHORD TYPE** submenu button.

2. **Select a Chord Type:** In the indigo button column/row, choose a chord type. A bright LED indicates the current selection.

Chord
MAJOR TRIAD (root, major third, perfect fifth)
MINOR TRIAD (root, minor third, perfect fifth)
DIMINISHED TRIAD (root, minor third, diminished fifth)
AUGMENTED TRIAD (root, major third, augmented fifth)
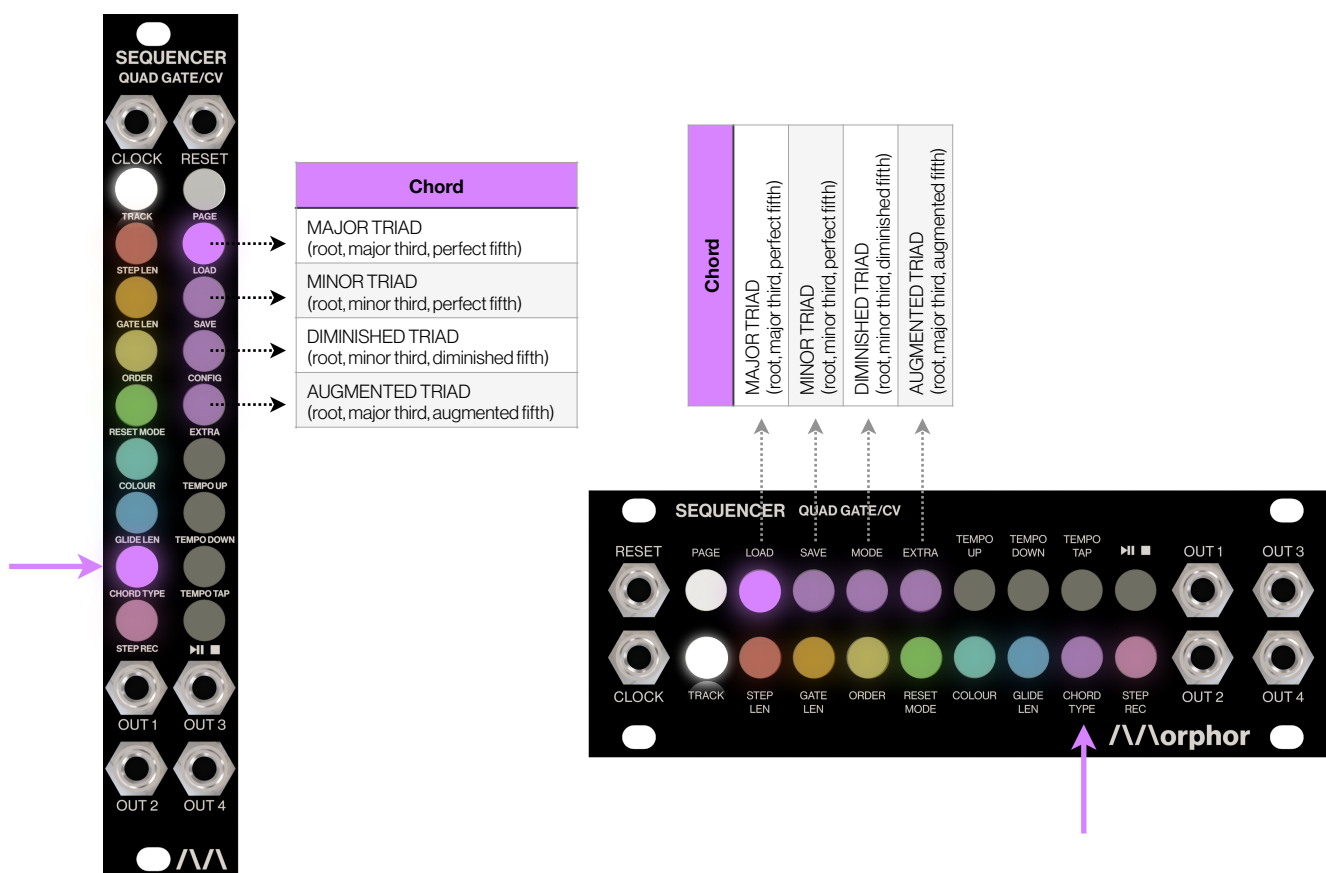
Arpeggiator

The sequencer includes a passive arpeggiator feature (only for tracks with a CV output). By **default**, arpeggiator mode is **disabled**.

When arpeggiator mode is enabled, setting a root note on a step (see Edit Note/CV) will automatically pre-fill the following steps in the selected track page with notes based on the active chord type. An arpeggiated pattern repeats over the span of one track page, so ensure that the length of the selected page matches your needs.

Note: Changing the chord type does not alter any existing notes on the track.
The notes following your root note will only be (re-)written when you enter a new root note on a step.

To set the arpeggiator for the selected track, do the following:

1. **Activate the Arpeggiator Mode**: If the arpeggiator mode is disabled, press and hold the **CHORD TYPE** button until the arpeggiator type options appear.
    (The **CHORD TYPE** button will become white when activated.)

2. **Select the Chord Type:** In the indigo button column/row, choose one of the available chord types. A bright LED indicates the current selection.

To disable the arpeggiator mode, press and hold the **CHORD TYPE** button from the Track Settings menu (The **CHORD TYPE** button will become indigo/purple again).

Chord
MAJOR TRIAD (root, major third, perfect fifth)
MINOR TRIAD (root, minor third, perfect fifth)
DIMINISHED TRIAD (root, minor third, diminished fifth)
AUGMENTED TRIAD (root, major third, augmented fifth)
MAJOR SEVENTH (root, major third, perfect fifth, major
MINOR SEVENTH (root, minor third, perfect fifth, minor
DOMINANT SEVENTH (root, major third, perfect fifth, minor
SUSPENDED 2 (root, major second, perfect fifth)

Step Record

The sequencer is equipped with a step record mode. This mode allows you to enter Gate/CV steps more efficiently.

1. **Select the Correct Track and Track Page:** Ensure you are viewing the desired track and track page. Refer to the Track Select and Track Page Select sections for guidance.

2. **Adjust your Track Page Length (optional):** The step record mode will be active until all steps of the selected track page are recorded, so it is best to set you track page to the desired length before doing a step record.

3. **Enter Step Record Mode**: From the Track Settings menu, press the **STEP REC** button once. The one-octave piano keyboard will appear.
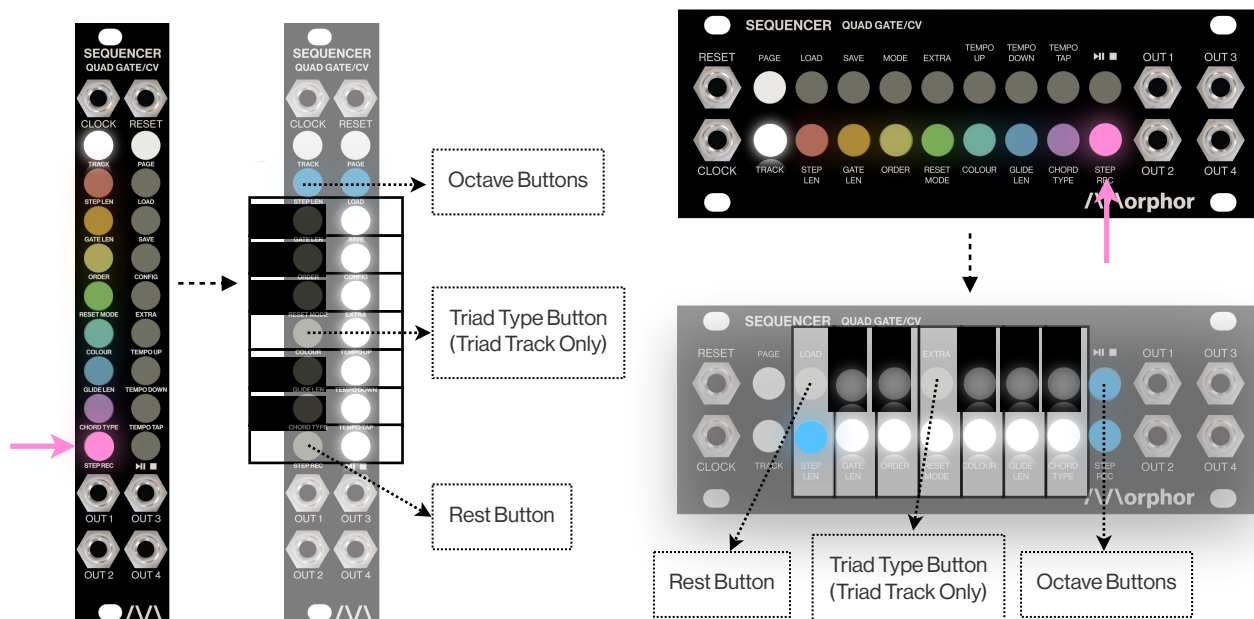
4. **Select the Octave (optional):** Decrease or increase the octave by using the top buttons indicated with the octave color.

5. **Select Triad Type (optional for Triad Track):** Cycle through the triad types using the **COLOUR** button.

6. **Enter Notes:** When you begin selecting notes, each time you set a note, it will automatically play (using the currently active gate length, if applicable) and then immediately advance to the next step. The keyboard will remain visible until you reach the final step of the track page, after which it will return to the track view.

Triad Type	Colors
Major	TURQOISE
Minor	TEAL
Diminished	LIME
Augmented	MAGENTA

7. **Skip a Step (Rest)**: To skip a step (i.e. enter a rest), simply press the rest button. When you enter a rest, it also automatically advances to the next step while the keyboard will remain visible.

8. **Continue Entering Notes**: Continue entering notes. When the end of the track page is reached, the module will automatically exit the step record mode and go back to the Track View.

9. **Exit Step Record Mode:** To exit the step record mode before the end of the page is reached, simply press the **TRACK** button.

Live Keyboard Mode

You can use the sequencer as a live keyboard. In this case the keyboard view will remain visible so you can play notes live. The gate will be high as long as you press a note.

1. Set the Track Page Length to 1 step.
2. Enter Step Record mode.

To exit the Live Keyboard Mode, press the **TRACK** button.

Octave Buttons
(use to lower or rise the
octave of the note)

Octave Buttons
(use to lower or rise the
octave of the note)

The 1 U module mimicking a one-octave
piano keyboard

The 3 U module mimicking a one-octave
piano keyboard
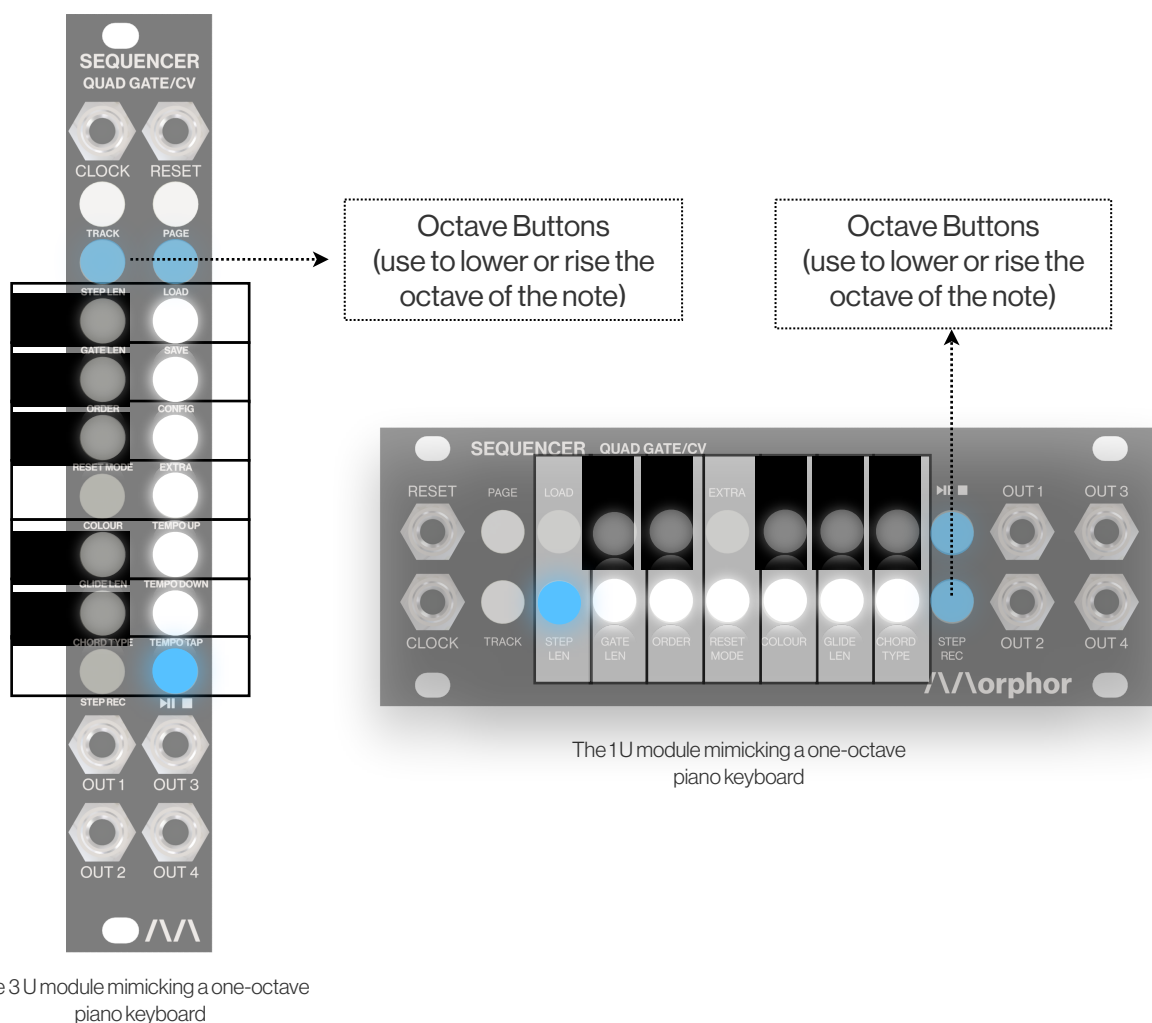
Global Settings

To change Global Settings, do the following steps:

1. **Enter Global Settings Menu:** Long press the **PAGE** button. Once in the Global Settings menu, the **PAGE** button's LED will remain bright white. Each submenu is indicated by a distinctive color, while unlit LEDs represent submenus that are unavailable.

2. **Select a Global Setting Submenu:** Press the button corresponding to the submenu you wish to access.
   When the submenu is active, the corresponding LED will be bright and the submenu options will be listed in the other button column/row in the same color as the submenu button.

   Note: A short text under each button label helps identify the submenu settings..

   The following global setting submenus are available:
   - ◉ **LOAD**: Load song
   - ◉ **SAVE**: Save song
   - ◉ **CONFIG**: Select module configuration
   - ◉ **EXTRA**: Extra menu
   - ◉ **TEMPO UP**: Increase tempo by 1 BPM
   - ◉ **TEMPO DOWN**: Decrease tempo by 1 BPM
   - ◉ **TEMPO TAP**: Tap tempo and tempo indicator
   - ◉ ▶❚❚■: Play/Pause/Stop

To cancel or quit the Global Settings menu, press the PAGE button again.

Note: When you change something in the Global Settings, the changes have an immediate effect but are only saved when you exit the Global Settings.
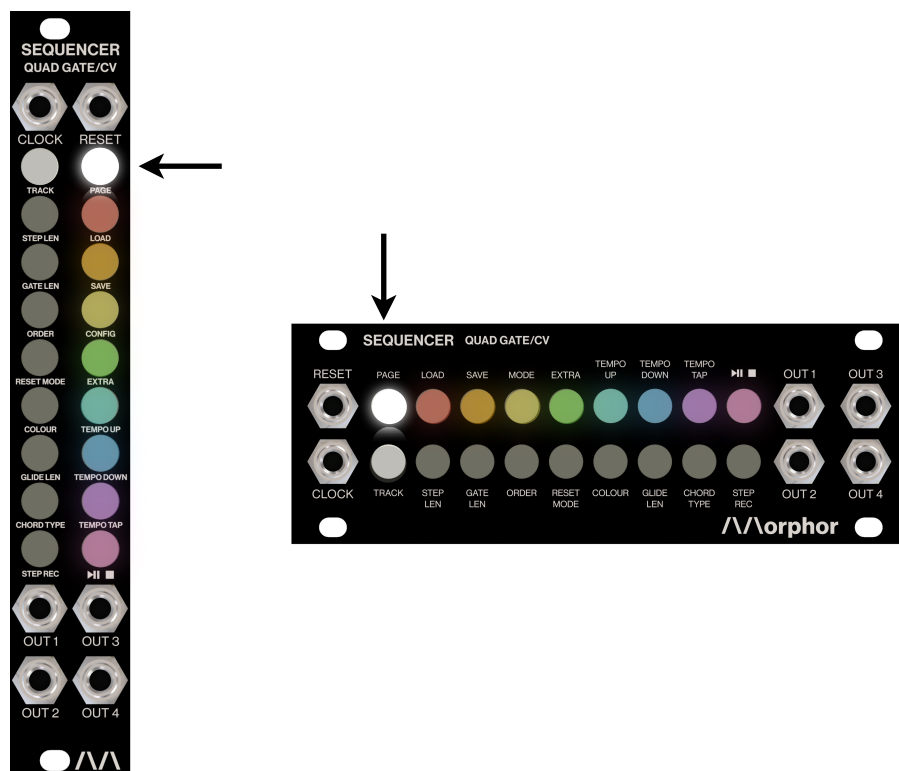
Load Song

A song contains all tracks and their individual settings. Up to 64 songs can be saved, organized into 8 banks with 8 slots each. To load a song, follow these steps:

1. **Enter Global Settings Menu:** From the Global Settings menu, press the **LOAD** submenu button.

2. **Select a Bank:** In the other button column/row, choose a bank. Dimly lit LEDs indicate that the bank already contains songs, while a bright LED indicates the currently selected bank.
   Press the desired bank to continue to the slot selection.

3. **Select a Slot:** Once a bank is selected, the Global Settings menu buttons will disappear, and you can select one of the 8 slot buttons in the other button column/row. Dimly lit LEDs indicate that the slot contains a song, while a bright LED indicates the currently selected slot.
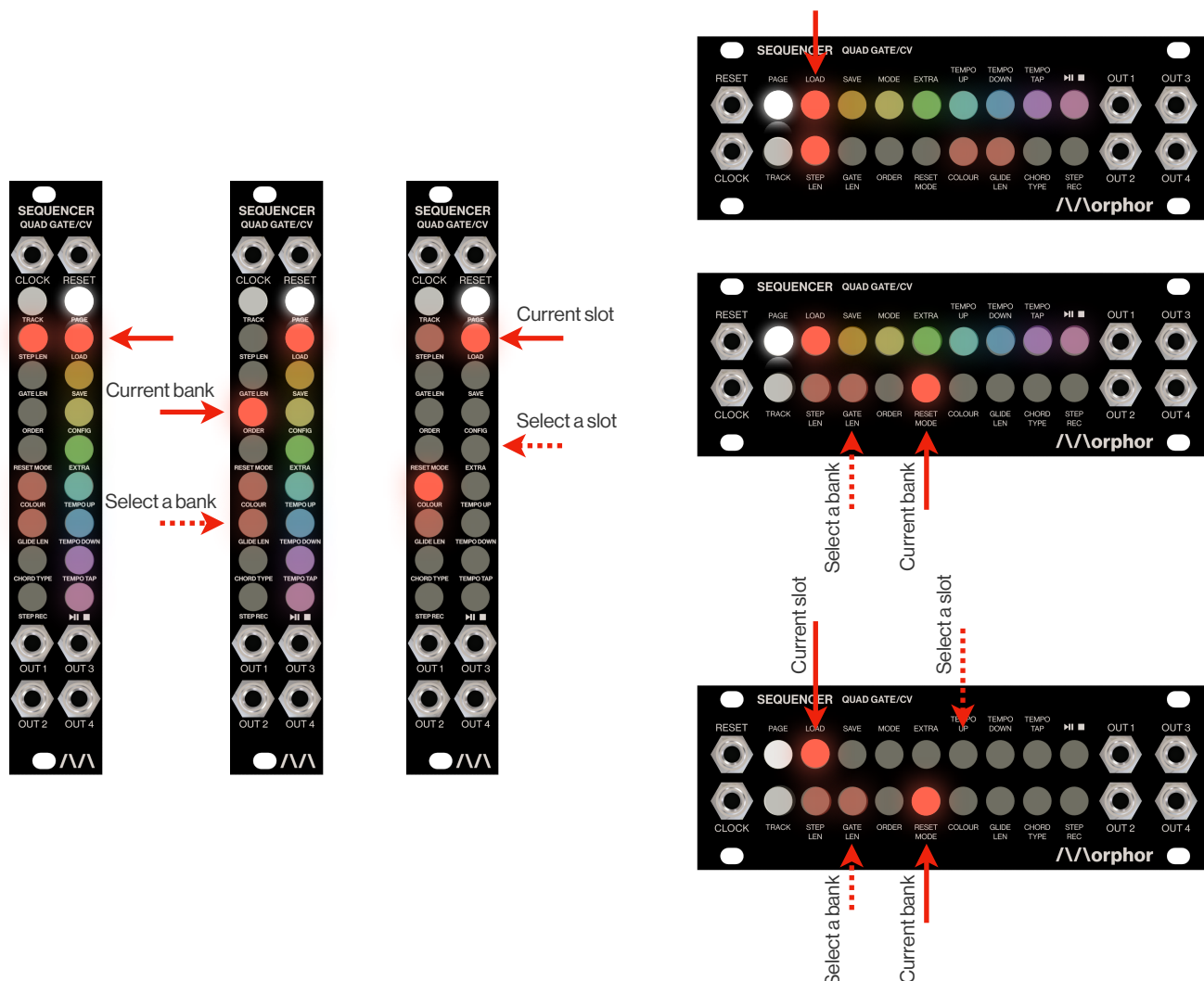
Save Song

You can save your song containing all tracks and their individual settings. Up to 64 songs can be saved, organized into 8 banks with 8 slots each. To save a song, follow these steps:

1. **Enter Global Settings Menu:** From the Global Settings menu, press the **SAVE** submenu button.

2. **Select a Bank:** In the other button column/row, choose a bank. Dimly lit LEDs indicate that the bank already contains songs, while a bright LED indicates the currently selected bank.
   Press the desired bank to continue to the slot selection.

3. **Select a Slot:** Once a bank is selected, the Global Settings menu buttons will disappear, and you can select one of the 8 slot buttons in the other button column/row. Dimly lit LEDs indicate that the slot already contains a song, while a bright LED indicates the currently selected slot.

Note: When saving a song, the sequencer will briefly stop and then resume playback if it was already playing. In addition to the tracks and their individual settings, the tempo is also saved with the song, provided the internal clock was used.

Configuration

The sequencer allows for various track configurations. To set up a specific configuration, follow these steps:

1. **Enter Global Settings Menu:** From the Global Settings menu, press the **CONFIG** submenu button.

2. **Select a Configuration**: Choose a desired configuration by pressing a button in the yellow button column/row.

   Note: Changing the module configuration will erase all current tracks and replace them with new, empty tracks based on the selected configuration. This configuration will be saved as the default, meaning it will remain active when the module is restarted.

Configuration
4 Gate Tracks
1 Gate/CV Track and 2 Gate Tracks
2 Gate/CV Tracks
1 Gate/CV Track and 2 CV Tracks
Triad Track (1 Gate with 3 coupled CV tracks)
4 CV Tracks
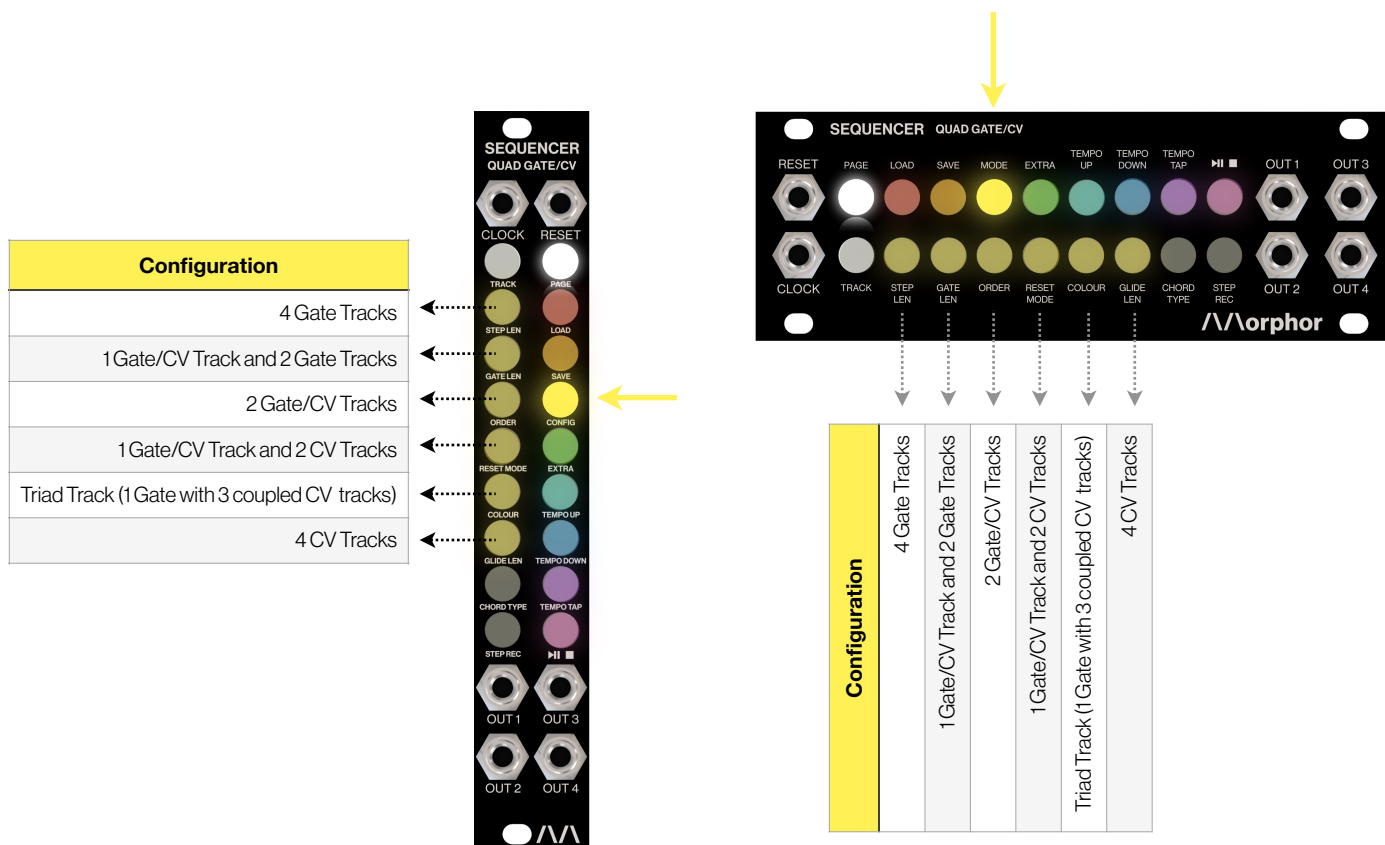
Extra

Less common settings are located in the extra submenu, which contains an additional level of options. To access the extra settings, follow these steps:
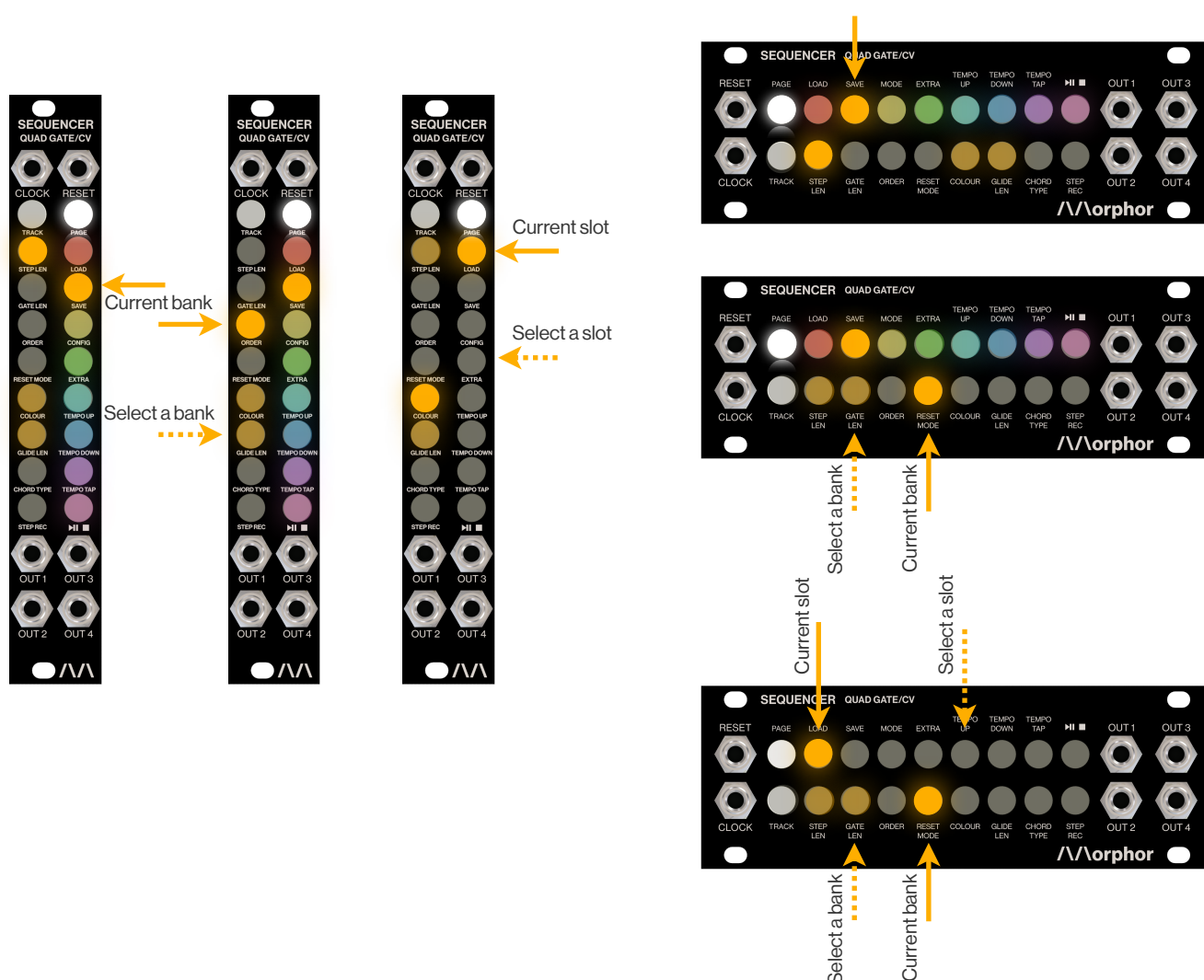
1. **Enter Global Settings Menu:** From the Global Settings menu, press the **EXTRA** submenu button.

2. **Select an Extra Submenu**: Choose a desired submenu by pressing a button in the green button column/row. The multi-coloured button column/row of the Global Settings menu will now disappear to show the extra submenu options to choose from.

Extra Menus
CLOCK AND RESET SETTINGS
CLOCK RESOLUTION
LED BRIGHTNESS
OUTPUT VOLTAGE SETTING
FACTORY SETTINGS
SHOW VERSION
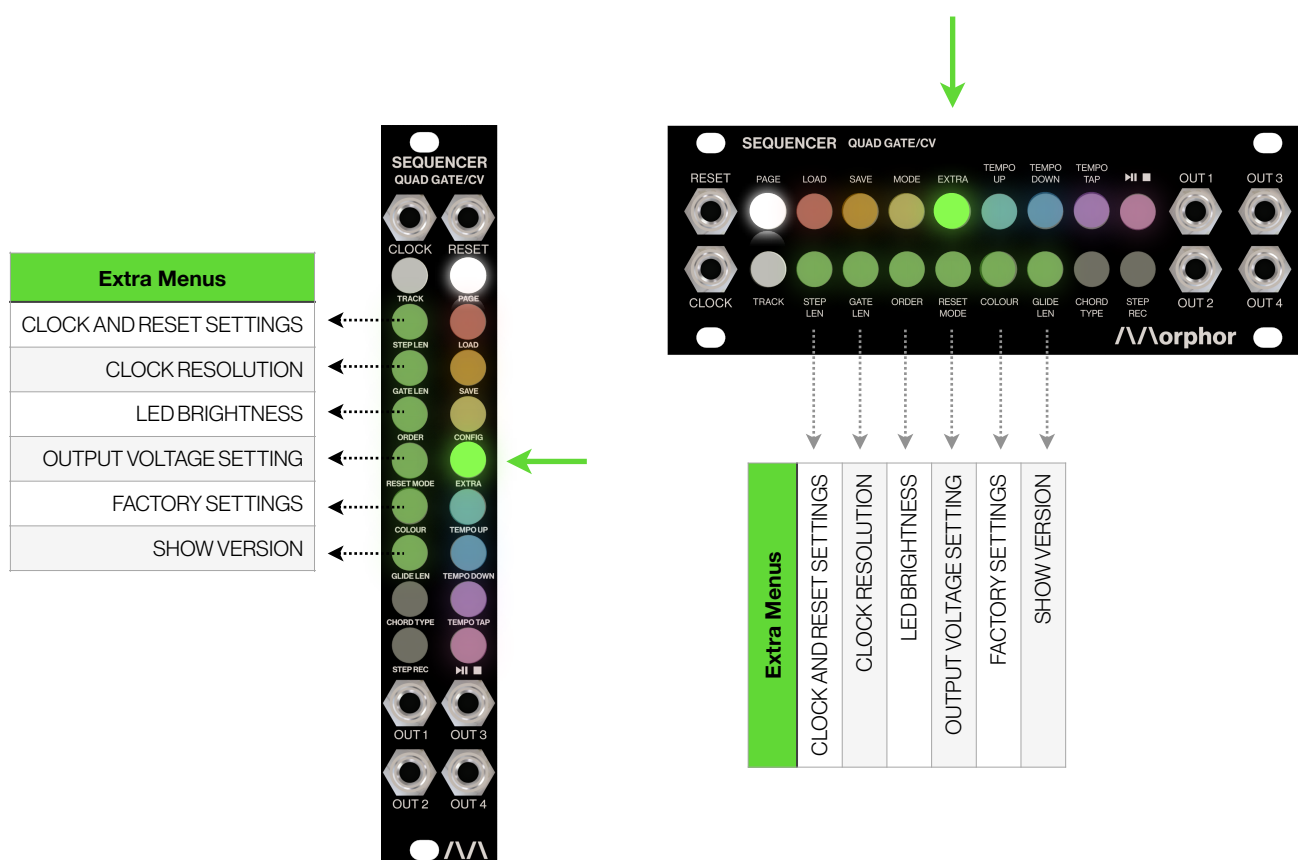
Clock and Reset

You can configure the function of the clock and reset jack sockets located at the top of the module by selecting the first option (**STEP LEN** button) inside the Extra Menu.

Note: In case you use the module in Slave mode, you cannot change this setting as the clock and reset source are automatically coming from the master module using the bus cable. You can use the slave's clock and reset jack as outputs to sync with other modules.

Extra Menus
CLOCK AND RESET SETTINGS
CLOCK RESOLUTION
LED BRIGHTNESS
OUTPUT VOLTAGE SETTING
FACTORY SETTINGS
SHOW VERSION

Clock and Reset Settings
EXTERNAL CLOCK AND EXTERNAL RESET
INTERNAL CLOCK AND EXTERNAL RESET
EXTERNAL CLOCK AND INTERNAL RESET
INTERNAL CLOCK AND INTERNAL RESET
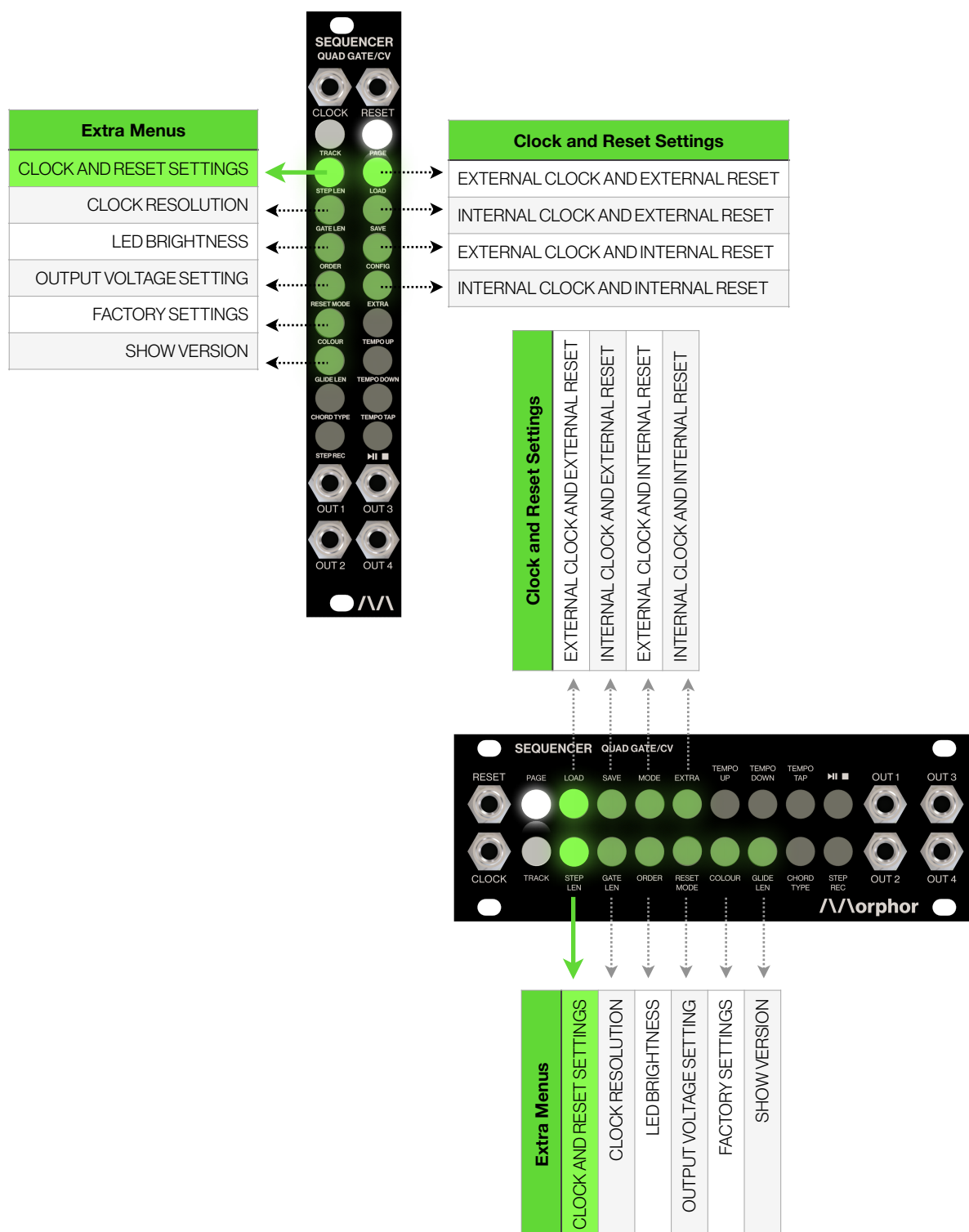
Clock Resolution

You can configure the clock resolution in PPQN. To access the clock resolution setup, select the second option (**GATE LEN** button) from inside the Extra Menu.

Extra Menus		Clock Resolution
CLOCK AND RESET SETTINGS		1 PPQN
CLOCK RESOLUTION		4 PPQN
LED BRIGHTNESS		8 PPQN
OUTPUT VOLTAGE SETTING		12 PPQN
FACTORY SETTINGS		16 PPQN
SHOW VERSION		24 PPQN
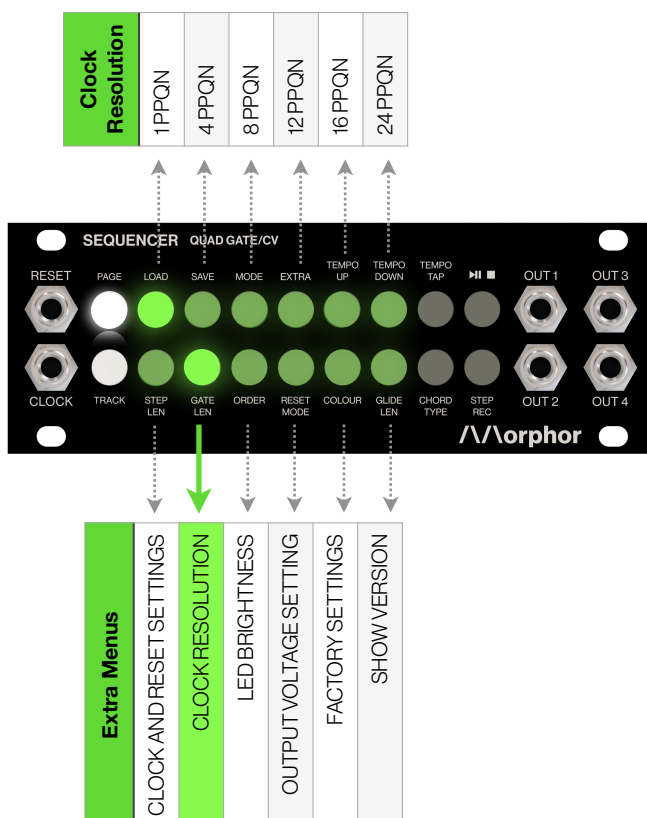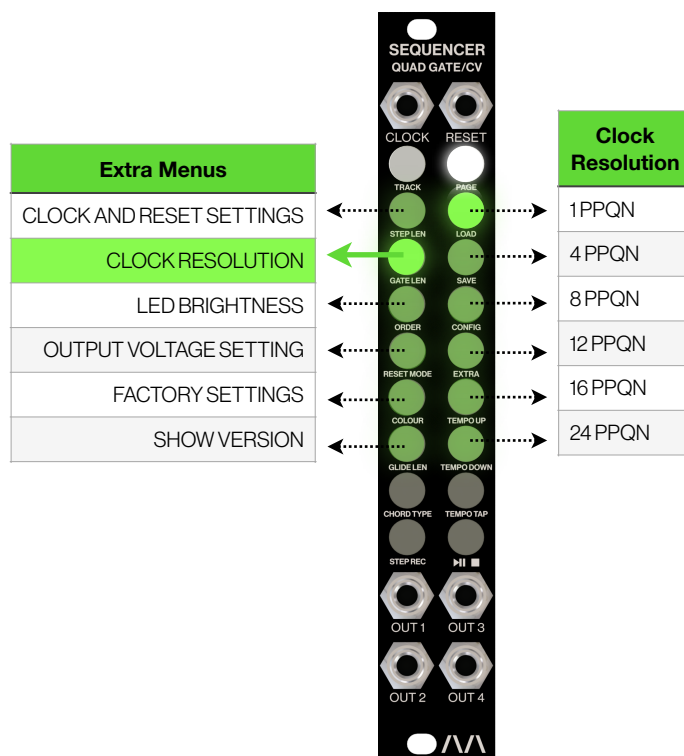
LED Brightness

You can adjust the overall brightness of the LEDs to suit your environment. To configure LED brightness, access the third option (**ORDER** button) within the Extra Menu.

Note: Setting the brightness to the lowest level will turn off inactive step LEDs completely, making it ideal for environments where minimal lighting is preferred. In this mode, the track button remains dimly lit in the track's assigned color. Additionally, when the page length is less than 16 steps, the end of the page length is indicated by a single dimly lit LED.
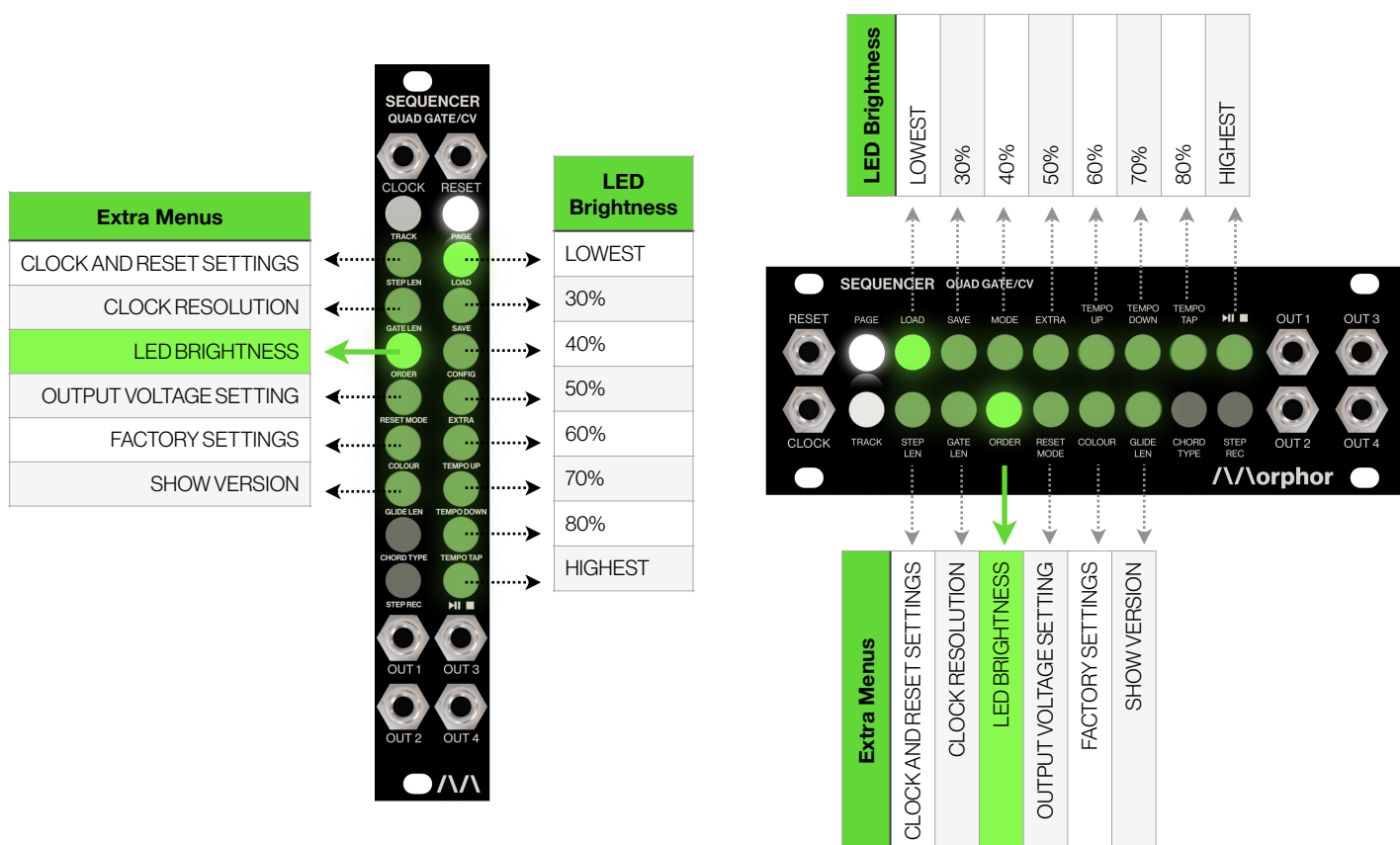
Output Voltage Settings

You can configure the type of voltage output standard (1 V/Oct, 1.2 V/Oct or Hz/V), set the CV mute behaviour (when the step is not activated for a CV-only track) or set the output voltage of a Gate/Trigger. To access the output voltage settings, select the fourth option (**RESET MODE** button) from inside the Extra Menu.

Extra Menus
CLOCK AND RESET SETTINGS
CLOCK RESOLUTION
LED BRIGHTNESS
OUTPUT VOLTAGE SETTING
FACTORY SETTINGS
SHOW VERSION

CV Voltage Setting
1 V/Oct (default)
1.2 V/Oct
Hz/V

CV Non-Active Step Behaviour
Hold last value (default)
0 V

Gate/Trigger Voltage
5 V (default)
8 V
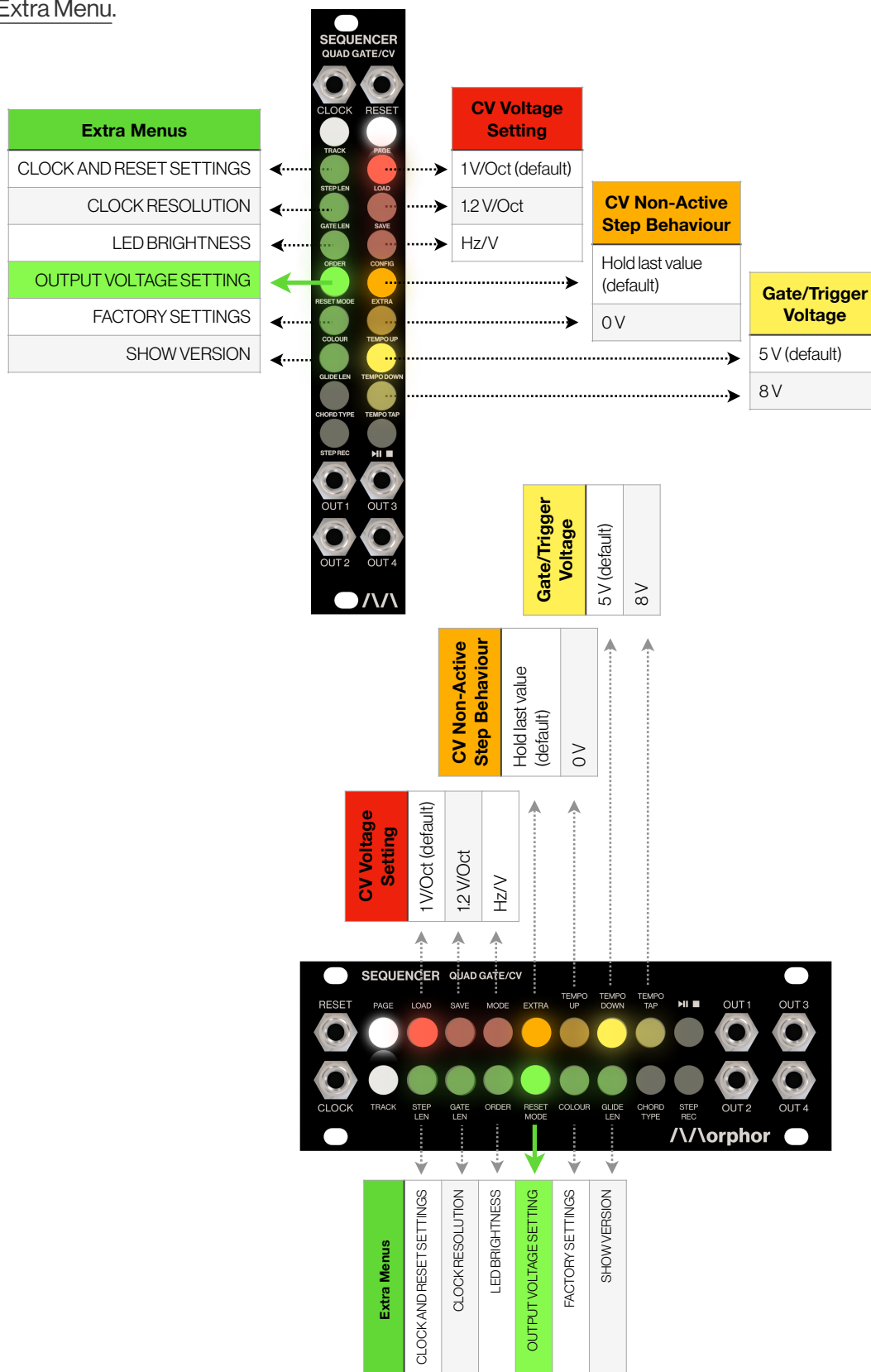
Factory Settings

In this submenu, you can reset the module's Global Settings to its default factory settings, delete all saved songs or do both. To use this, select the fifth option (**COLOUR** button) from inside the Extra Menu. These functions take a few milliseconds to execute, during which the sequencer pauses, and the LED turns orange. When deleting only saved songs, the sequencer will resume playback if it was already playing. In all other cases, the module will reboot. Ensure your song is saved beforehand, as all tracks will be cleared.

Extra Menus
CLOCK AND RESET SETTINGS
CLOCK RESOLUTION
LED BRIGHTNESS
OUTPUT VOLTAGE SETTING
FACTORY SETTINGS
SHOW VERSION

Factory Setting Options
Reset global settings to default values (*)
Delete all saved songs
Reset global settings to default values and delete all saved songs (*)
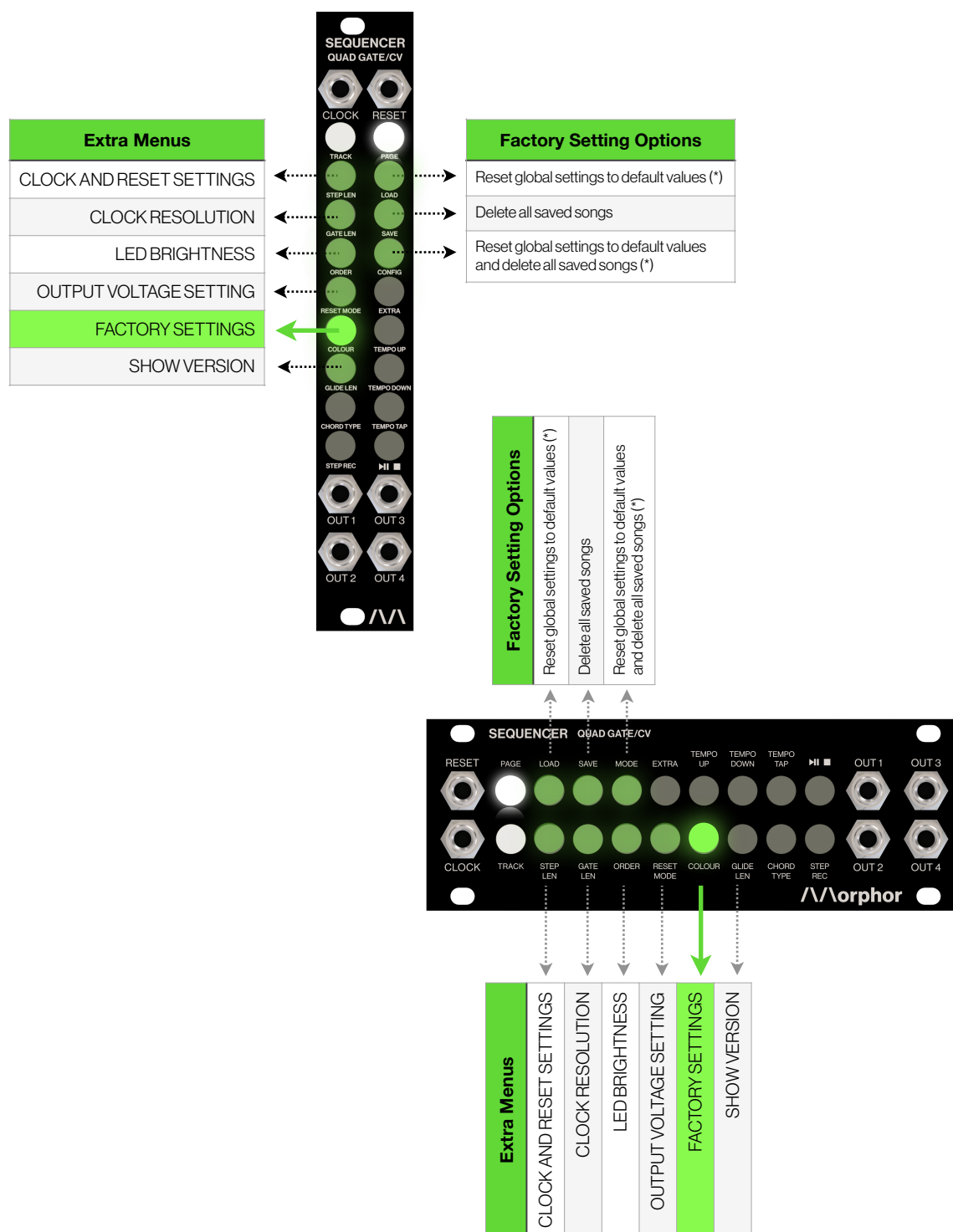
* Module will reboot. Make sure you have saved your song, because all tracks will be emptied.

Show Firmware Version

To check the current software version press the sixth option (**GLIDE LEN** button) from inside the Extra Menu. The amount of red LEDs shows the major number, the green LEDs shows the minor number and the blue LEDs shows the patch number. E.g. 2.3.1 is show as 2 reds, 3 greens and 1 blue.

Example
showing version 1.2.3
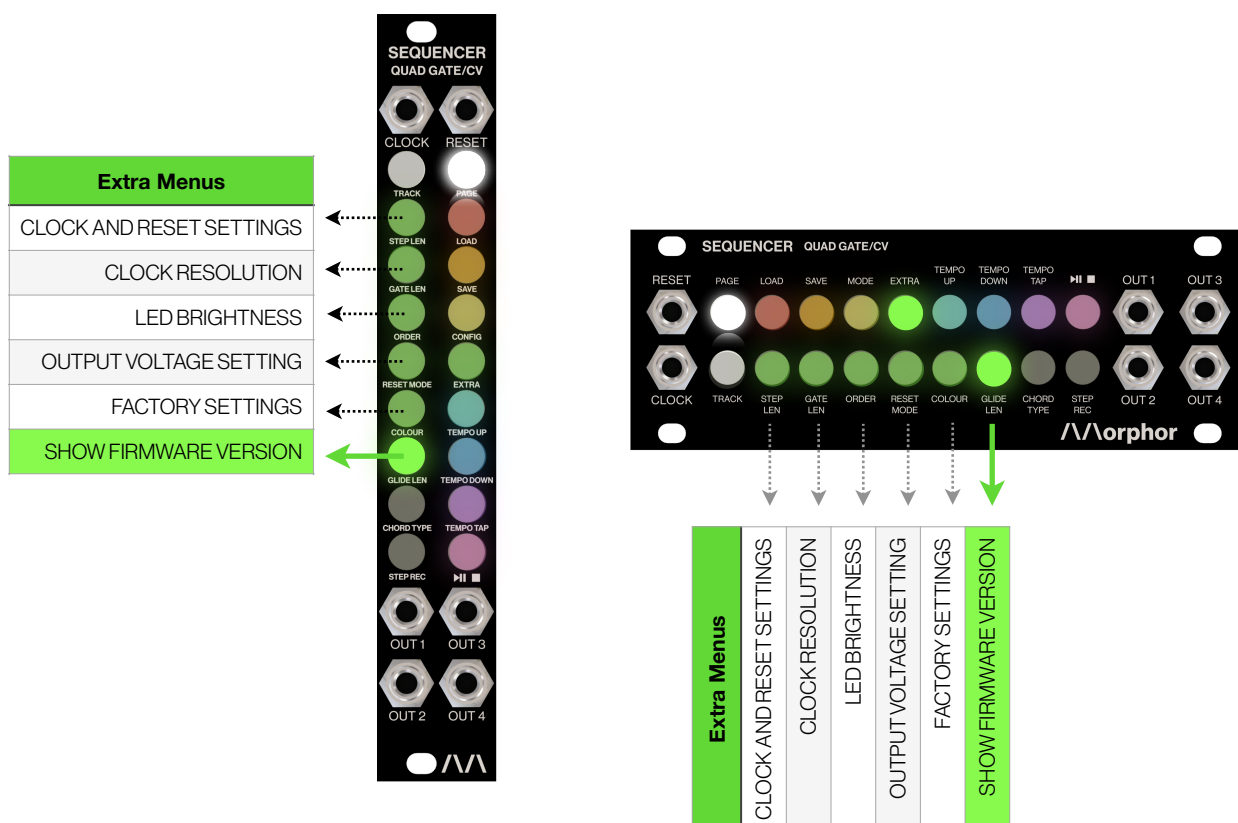
Tempo

When using the internal clock, you can set the desired tempo.

1. **Enter Global Settings Menu:** From the Global Settings menu.
2. Tap the **TEMPO TAP** button for at least four consecutive taps.
3. To fine-tune the tempo, press the **TEMPO UP** or **TEMPO DOWN** buttons to increase or decrease the tempo by 1 BPM.
   Note: The sequencer default tempo is 120 BPM.
4. Pressing long on the **TEMPO TAP** button will cause the tempo to reset to the default value 120 BPM.

*Note: The **TEMPO TAP** button LED will blink at the current tempo when in internal or external clock mode.*

Play/Pause/Stop

1. **Enter Global Settings Menu:** From the Global Settings menu.
2. **To pause or start the sequence:** Press the ▶II■ button shortly.
3. **To stop the sequence:** Press the ▶II■ button long. Stopping the sequence will reset the playhead/cursor of all tracks back to the beginning.

Daisy-Chaining Modules

This module can operate as a standalone unit with its internal clock or be synchronized with an external clock source. The clock and reset jacks can function as inputs or outputs, offering flexible configuration for various setups.

For expanded use, you can daisy-chain multiple Morphor Sequencer modules via the 2x3 pitch bus connectors on the back. **Ensure the case power is off before connecting the bus cables!**

In daisy-chained setups, only one module should be set as the master, with the others set to slave mode using the little switch on the back. In slave mode, the clock and reset signals are sourced from the master module, and the clock and reset jacks can be used as outputs to synchronize other modules in your system.

Bus connectors

Master/Slave select switch

Rear side of the module

BUS CABLE

BUS CABLE

BUS CABLE

MASTER

SLAVE

SLAVE

MASTER

SLAVE

SLAVE
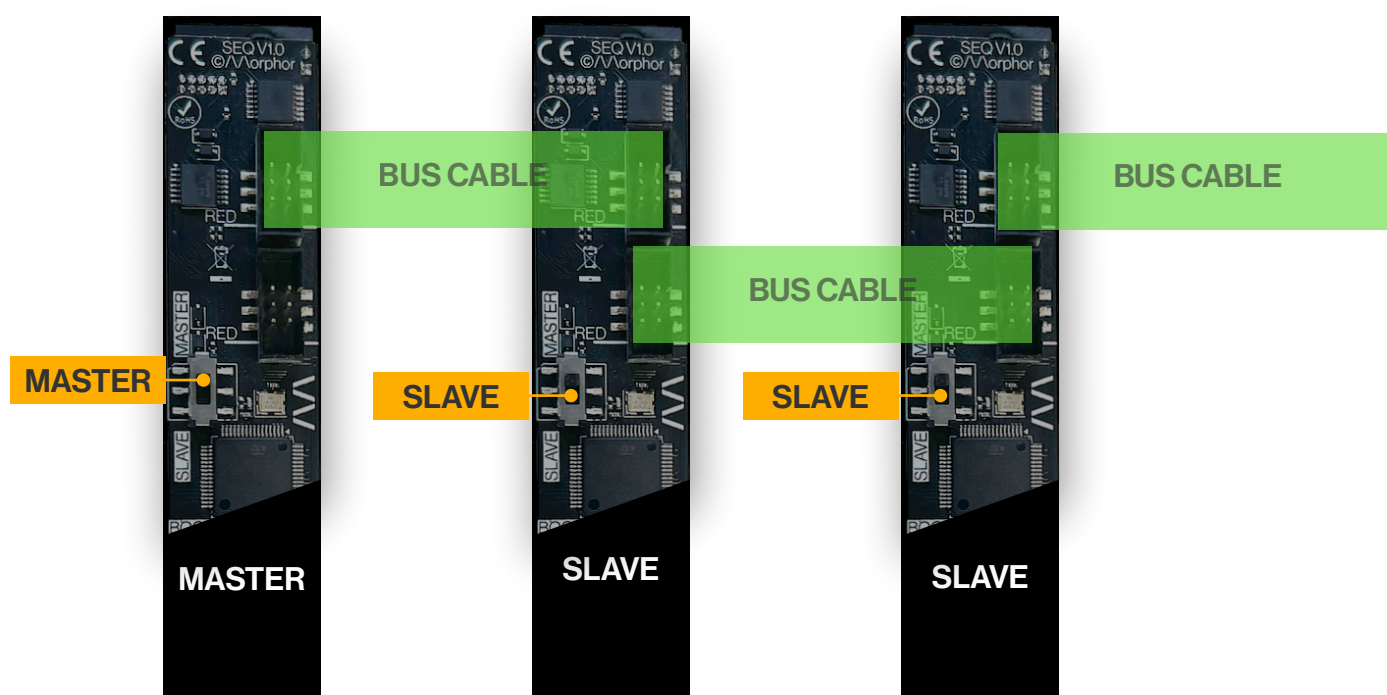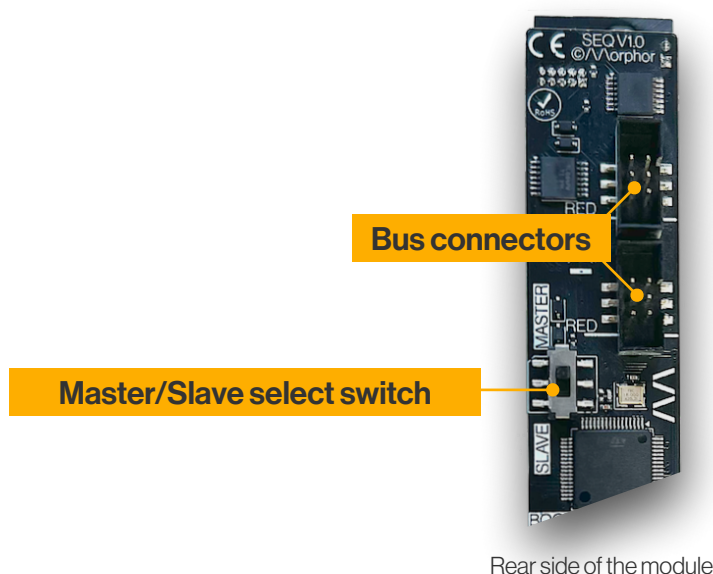
Restart Without Power Cycle

To restart the module without performing a full power cycle, press and hold **TRACK**, **PAGE**, **STEP REC** and ▶❚❚◼ buttons simultaneously until the module restarts. Please note that any non-saved tracks will be lost during this process.
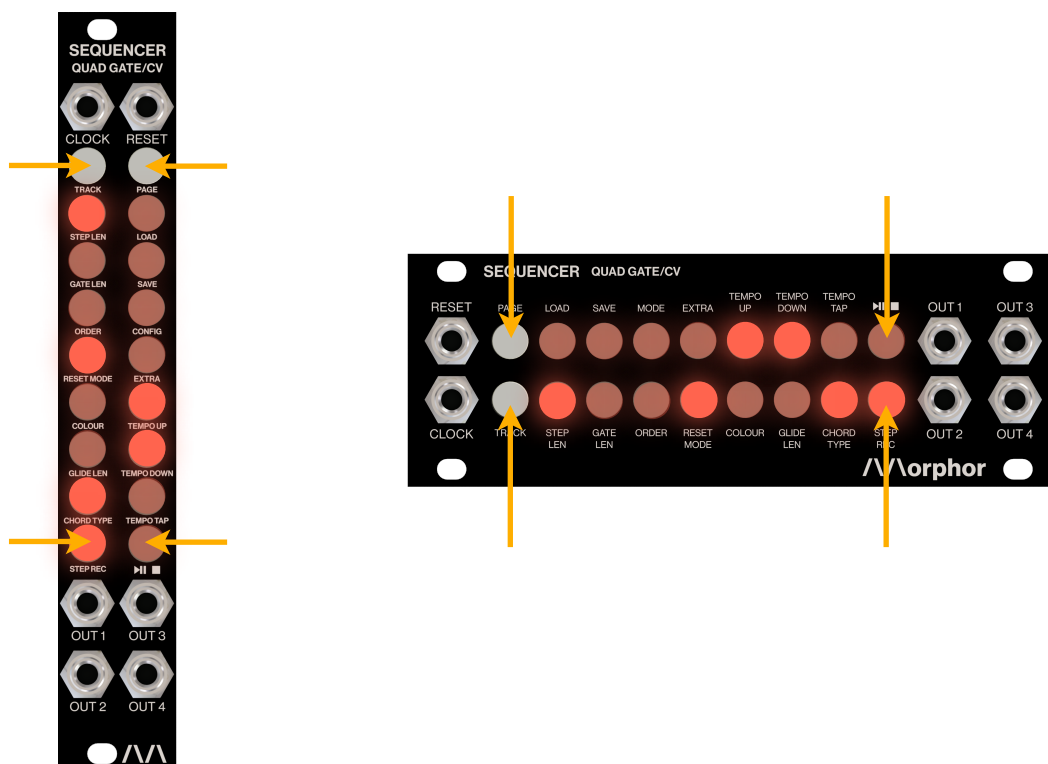
Update Firmware

If a firmware update is required, follow these steps:

1. Unplug the module from your rack.
2. Connect the module to your PC using a USB-C data cable while holding down the **TRACK** button until the top 2 LEDs turns `green`.
   You need to hold the **TRACK** button for at least 3 seconds to turn `green`. While holding the **TRACK** button, the top 2 LEDs are `orange`.
3. On your PC, open a WebUSB-compatible browser (e.g. Google Chrome (preferred), Microsoft Edge, Opera) and navigate to the Morphor Sequencer product page (https://morphor.io/products/modules/sequencer/).
4. Follow the on-screen instructions to complete the firmware update

Cheat Sheet

TRACK SELECTION MENU

Enter Track Selection Menu: Press **TRACK** to access Track Selection Menu.

Select Track: Enter Track Selection Menu, then press a track button (output jacks correspond to tracks). You are now in the selected Track View mode for step editing.

Track Mute: In Track Selection Menu press and hold **TRACK**, then press the track you wish to mute.

Track Solo: In Track Selection Menu press and hold **PAGE**, then press the track you wish to solo.

Un-solo Track (Enable All Tracks): In the Track Selection Menu, press and hold **PAGE**, then press the soloed track to disable solo mode and re-enable all tracks.

Clear Track: In Track Selection Menu press and hold the button of the track to clear it completely.

STEP EDITING

Activate/Deactivate Step: In Track View Mode, short press a Step Button.

Edit Note/Pitch CV (tracks with CV): In Track View Mode, press and hold a step button to enter Note Edit Mode, and use the buttons to select notes. Choose octave with upper two buttons.

Edit Probability: In Track View Mode, press and hold the **TRACK** button, then press a step, and select the desired probability. (12.5%, 25%, 37.5%, 50%, 62.5%, 75%, 87.5%, 100%).

Tie Steps: In Track View Mode, press and hold two step buttons to tie them together.

Un-Tie Steps: In Track View Mode, press a step button in the tied notes chain.

Edit Current Page Length:
Reduce Page Length: In Track View Mode, press and hold **PAGE** button, then press the shorter desired page length using one of the lit step buttons.
Extend Page With Empty Steps: In Track View Mode, press an empty step up to which you want to extend the page.
Extend Page With Filled Steps: In Track View Mode, press and hold **PAGE** button, press an empty step up to which you want to extend the page with filled steps.

PAGE SELECTION MENU

Enter Page Selection Menu: Press **PAGE** to access Page Selection Menu.

Select Page: Enter Page Selection Menu, then press a page button.

Page Skip/Un-skip: In Page Selection Menu press and hold **TRACK**, then press the page you wish to skip/un-skip.

Edit track length:
Add Empty Pages: In Page Selection Menu press an unused page button up to which you want to extend the track.

Add Cloned Pages: In Page Selection Menu press and hold **PAGE** and press an unused page button up to which you want to extend the track with clones of the last page.

Remove Pages: In Page Selection Menu press and hold **PAGE** and press a page button up to which you want to shorten the track to.

Clear Page: In Page Selection Menu press and hold the button of the page to clear it completely.

TRACK SETTINGS

Enter Track Settings: Long-press **TRACK** to access Track Settings for the selected track.

Step Length: In Track Settings, press **STEP LEN**, then select the step length (1, 2, 3, 4, 6, 8, 12 up to 16 or 24 pulses).

Gate Length: In Track Settings, press **GATE LEN**, then select the gate length (0, 0.5, 5, 10, 20, 30, 40) ms or complete step length.

Playing Order: In Track Settings, press **ORDER**, then choose a playing order (up, down, pendulum, ping-pong, random).

Reset Mode: In Track Settings, press **RESET MODE**, then set reset mode (auto, auto+ext, ext only, ...).

Track Colour: In Track Settings, press **COLOUR**, then choose colour.

Glide Length (tracks with CV): In Track Settings, press **GLIDE LEN**, then select a glide time (0, 50, 100, 200, 300, 400, 500) ms up to a full step glide length.

Set Default Chord Type (Triad Track): In Track Settings, press **CHORD TYPE**, then select a triad chord: maj, min. dim, aug.

Arpeggiator (tracks with CV): In Track Settings, press and hold **CHORD TYPE** to enable/disable arpeggiator mode. Select type: maj triad, min triad, dim triad, aug triad, maj 7th, min 7th, dom 7th, sus 2nd.

Step Record: In Track Settings, press **STEP REC**. Set octave with upper two buttons. (For a Triad Track cycle through triad type options using the **COLOUR** button). Play notes or enter a rest using the **STEP REC** button. Exits automatically when reaching the end of the track page or by manually pressing **TRACK** once.

Live mini keyboard: Set page length to 1 step of track with CV. In Track Settings, press **STEP REC**.

GLOBAL SETTINGS

Enter Global Settings: Long-press **PAGE** to access Global Settings.

Load Song: In Global Settings, press **LOAD**, then select a bank and slot to load a saved song.

Save Song: In Global Settings, press **SAVE**, then select a bank and slot to save the current song.

Set Track Configuration: In Global Settings, press **CONFIG**, then choose the desired configuration (4x Gate, 1x Gate/CV Track + 2x Gate, 2x Gate/CV, 1x Gate/CV + 2x CV, Triad, 4x CV)
! Current tracks will be lost **!**

Change Tempo (default 120 BPM):
Tempo Up (internal clock): In Global Settings, press **TEMPO UP** to add 1 BPM.

Tempo Down (internal clock): In Global Settings, press **TEMPO DOWN** to decrease 1 BPM.

Tempo Tap (internal clock): In Global Settings, tap **TEMPO TAP** to set the tempo. The LED shows also current tempo when using external clock source.

Restore Default Tempo (120 BPM): Long-press **TEMPO TAP**.

Extra Menu: In Global settings, press **EXTRA**.
Set Clock and Reset Jack: In Extra Menu, press **STEP LEN**. Then select in the other button column/row your setup: ext.clock+ext.reset, int.clock+ext.reset, ext.clock+int.reset or int.clock+int reset.

Set Clock Resolution: In Extra Menu, press **GATE LEN**. Then select in the other button column/row your clock resolution: 1, 4, 8, 12, 16 or 24 PPQN.

Set LED Brightness: In Extra Menu, press **ORDER**. Then select in the other button column/row your brightness. (Selecting the lowest brightness setting will turn off inactive step LEDs completely and enable a page length indicator).

Set CV Voltage Setting: In Extra Menu, press **RESET MODE**. Then select in the red button column/row your voltage output setting: 1 V/Oct, 1.2 V/Oct or Hz/V.

Set CV Non-Active Step Behaviour: In Extra Menu, press **RESET MODE**. Then select in the right green button column/row: hold last voltage or 0 V.

Set Gate/Trigger Voltage: In Extra Menu, press **RESET MODE**. Then select in the blue button column/row: 5 V or 8 V.

Factory Settings: In Extra Menu, press **COLOUR**. Select in the other button column/row:
• reset global settings to default values (**!** will reset module **!**)
• delete all saved songs
• reset global settings to default values and delete all saved songs (**!** will reset module **!**)

Show Firmware Version: In Extra Menu, press **GLIDE LEN**.

REBOOT

Reboot Module: Press and hold the **TRACK**, **PAGE**, **STEP REC** and ▶❚■ buttons simultaneously until the module restarts.

Menu Overview

Track Settings

1 Step Length	1.1 **1 Pulse**		
	1.2 **2 Pulses**		
	1.3 **3 Pulses**		
	1.4 **4 Pulses**		
	1.5 **6 Pulses**		
	1.6 **8 Pulses**		
	1.7 **12 Pulses**		
	1.8 **16 or 24 Pulses**		
2 Gate Length	2.1 **Gate Off**		
	2.2 **0.5 ms**		
	2.3 **5 ms**		
	2.4 **10 ms**		
	2.5 **20 ms**		
	2.6 **30 ms**		
	2.7 **40 ms**		
	2.8 **Full Step Length (default)**		
3 Order	3.1 **Up (default)**		
	3.2 **Down**		
	3.3 **Pendulum**		
	3.4 **Ping-Pong**		
	3.5 **Random**		
4 Reset Mode	4.1 **Auto + External Reset (default)**		
	4.2 **Auto**		
	4.3 **External Reset**		
	4.4 **By Longest Track**		
	4.5 **By Longest Track + External Reset**		
	4.6 **Auto + By Longest Track + External Reset**		
	4.7 **Random In Tempo**		
	4.8 **Random Free**		
5 Colour	5.1 **Red**		
	5.2 **Orange**		
	5.3 **Yellow**		
	5.4 **Green**		
	5.5 **Cyan**		
	5.6 **Blue**		
	5.7 **Indigo**		
	5.8 **Pink**		
6 Glide Length	6.1 **No Glide (default)**		
	6.2 **50 ms**		
	6.3 **100 ms**		
	6.4 **200 ms**		
	6.5 **300 ms**		
	6.6 **400 ms**		
	6.7 **500 ms**		
	6.8 **Complete step**		
7 Chord Type	7.1 **Triad Track**	7.1.1 **Major Triad**	
		7.1.2 **Minor Triad**	
		7.1.3 **Diminished Triad**	
		7.1.4 **Augmented Triad**	
	7.2 **GateCV Track / CV Track**	7.2.1 **Major Triad**	
		7.2.2 **Minor Triad**	
		7.2.3 **Diminished Triad**	
		7.2.4 **Augmented Triad**	
		7.2.5 **Major Seventh**	
		7.2.6 **Minor Seventh**	
		7.2.7 **Dominatn Seventh**	
		7.2.8 **Suspended 2**	
8 Step Record			

Global Settings

1 Load Song				
2 Save Song				
3 Configuration	3.1 **4x Gate**			
	3.2 **1x Gate/CV + 2x Gate**			
	3.3 **2x Gate/CV**			
	3.4 **1x Gate/CV + 2x CV**			
	3.5 **1x Gate + 3x CV (Chord)**			
	3.6 **4x CV**			
4 Extra	4.1 **Clock + Reset Settings**	4.1.1 **External Clock + External Reset**		
		4.1.2 **Internal Clock + External Reset**		
		4.1.3 **External Clock + Internal Reset**		
		4.1.4 **Internal Clock + Internal Reset**		
	4.2 **Clock Resolution**	4.2.1 **1 PPQN**		
		4.2.2 **4 PPQN**		
		4.2.3 **8 PPQN**		
		4.2.4 **12 PPQN**		
		4.2.5 **16 PPQN**		
		4.2.6 **24 PPQN**		
	4.3 **LED Brightness**	4.3.1 **Lowest**		
		4.3.2 **30%**		
		4.3.3 **40%**		
		4.3.4 **50%**		
		4.3.5 **60%**		
		4.3.6 **70%**		
		4.3.7 **80%**		
		4.3.8 **Highest**		
	4.4 **Output Voltage Settings**	4.4.1 **CV Voltage Setting**	4.4.1.1 **1 V/Oct (default)**	
			4.4.1.2 **1.2 V/Oct**	
			4.4.1.3 **Hz/V**	
		4.4.2 **CV Non-Active Step Behaviour**	4.4.2.1 **Hold last value (default)**	
			4.4.2.2 **0 V**	
		4.4.3 **Gate/Trigger Voltage**	4.4.3.1 **5 V (default)**	
			4.4.3.2 **8 V**	
	4.5 **Factory Settings**	4.5.1 **Reset Global Settings**		
		4.5.2 **Delete All Songs**		
		4.5.3 **Reset Global Settings + Delete All Songs**		
	4.6 **Show Firmware Version**			
5 Tempo Up				
6 Tempo Down				
7 Tempo Tap				
8 Play/Pause/Stop				

Technical Specifications

module width (3 U version)	4 HP (20 mm)
module height (3 U version)	3 U (128.5 mm)
module width (1 U version)	22 HP (111.4 mm)
module height (1 U version)	1 U (39.65 mm)
module maximum depth (incl. power cable)	33 mm (including power connector)
module mass (3 U version)	56 g
module mass (1 U version)	66 g
maximum current draw	95 mA @ +12 V 11 mA @ -12 V 123 mA @ +5 V
input impedances	100 kOhm
output impedances	1 kOhm
front panel	2 mm anodized aluminum

Support

To provide the best possible performance with the highest quality and reliability for music professionals, all Morphor's products are designed, manufactured and tested in-house with the highest possible standards. In case your module is not functioning as it should, make sure to check your Eurorack power supply and all connections first.

If the problem persists, contact your dealer or send an email to support@morphor.io. Please mention your serial number, which can be found on the module's rear side.

Module Revision History

Revision 1.0 - initial release

Manual Version

03/10/2024
initial release

22/10/2024
add 1 U mode, update LED brightness, add un-solo, add Gate/Trigger level, add CV mute options

Firmware Changelog

v1.1.0 - 2024-11-01

Fixed
- bpm of a saved song is not loaded properly
- clock is not stopped when pressing pause/stop when using internal clock

Added
- 1U mode
- undo solo (all on)
- CV mute option (hold value (default) or 0 V)
- gate voltage selection 5 V (default) or 8 V
- lowest brightness setting dims all inactive steps completely (with page length indicator)

v1.0.1 - 2024-10-04

Fixed
- LED calibration

v1.0.0 - 2024-10-02

Initial release