

### 3. Pattern Edit

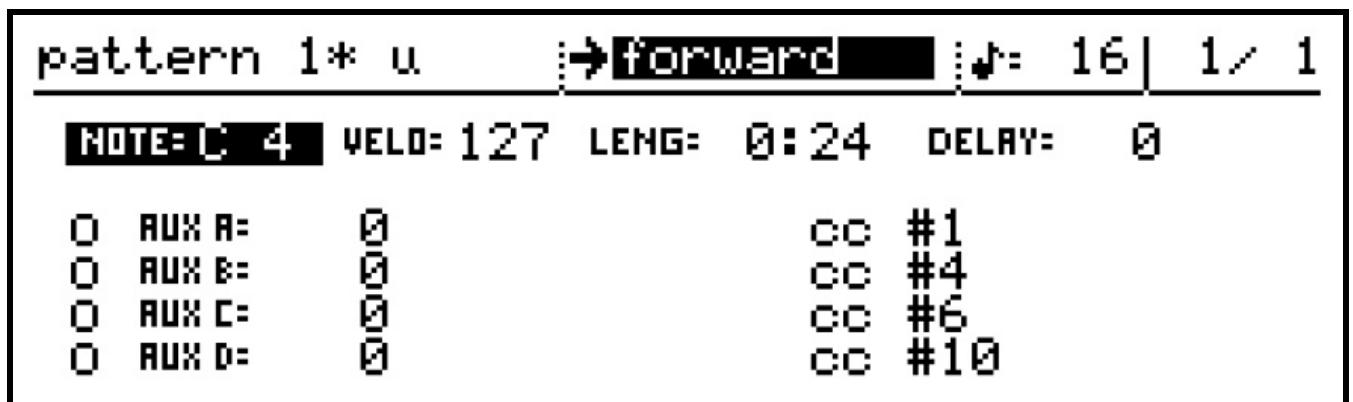
With an empty pattern created and assigned to the track, we need to edit the pattern to get some notes playing. Switch to pattern edit by pressing the PATTERN key.

Normally the pattern assigned to the current edit track will be edited.

However if the FILL field is selected on the track page, the fill pattern assigned to the edit track will be edited instead.

As a shortcut to create a pattern, if you press the PATTERN key on a track with no pattern assigned, a new P3 pattern will be created and assigned as you enter pattern edit.

At first, the edit page for a new P3 pattern will look like this:



The top line of this view shows:

- the pattern name
- the current direction
- the timebase setting (duration of each step as a division of the master tempo)
- the current bar number and bar length of the pattern

The lower part of the display shows all the current values for a single step of the pattern. This is the **step view**.

## What's in a P3 Pattern ?

Each bar of a P3 pattern can be thought of as a matrix of values, as shown below.  
There are 16 steps in each bar, shown as the columns of the matrix.

For each step there are a number of different values.

There are numeric values for **note**, **velocity**, **length**, **delay**, and four **auxes**, labelled **A** to **D**.

There are status or flag (on/off) values for **gate**, **tie**, **skip**, **X** and the four **auxes**.

These values make up the rows of the matrix:

ROWS	STEPs															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
note																
velo																
length																
delay																
aux A																
aux B																
aux C																
aux D																
gate / tie / skip / X																
aux status * 4																

The purpose and range of each of the row values is as follows:

row	purpose	range
note	Sets the MIDI note to be played	C0 to G#10 (MIDI notes 0 to 127)
velo	Sets the velocity value for the note message	1 to 127
length	Sets the duration of the note. value is shown in the form <i>s:tt</i> <i>s</i> shows a whole number of steps, <i>tt</i> shows 48 <sup>th</sup> divisions of a step	0 to 47 ticks, to max 96:0 or "hold"
delay	Allows the note start to be delayed by a number of clock ticks (at 192 ppqn)	0 to 47
aux A – aux D value	Set the values for assigned MIDI controller messages, or aux events	MIDI CCs : 0 to 127 Aux event ranges vary
aux A – aux D status	Trigger the associated CC or event	on / off
gate	Trigger the note	on /off
tie	Force the current note to sustain until just after the start of the next step	on /off
skip	Skip over this step to the next un-skipped step	on / off
X	transpose defeat – prevent transpose of note value by scene xpos, FTS	on / off

Note that the length value can be longer than a single step period.

Assuming that the tie flag is not active, a note will continue to play for its full length, overlapping any other notes in following steps.

This means the P3 pattern type can play overlapping, sustaining notes – a feature not available on the P3 itself.

If the same note is triggered again while still playing, it will be released then re-triggered with the new step length.

## ***Editing Pattern Values***

In pattern edit the 16 step encoders are used to change the numeric values.

The 16 step keys are used to toggle the flag values on and off.

The LEDs in the step keys indicate the current flag status.

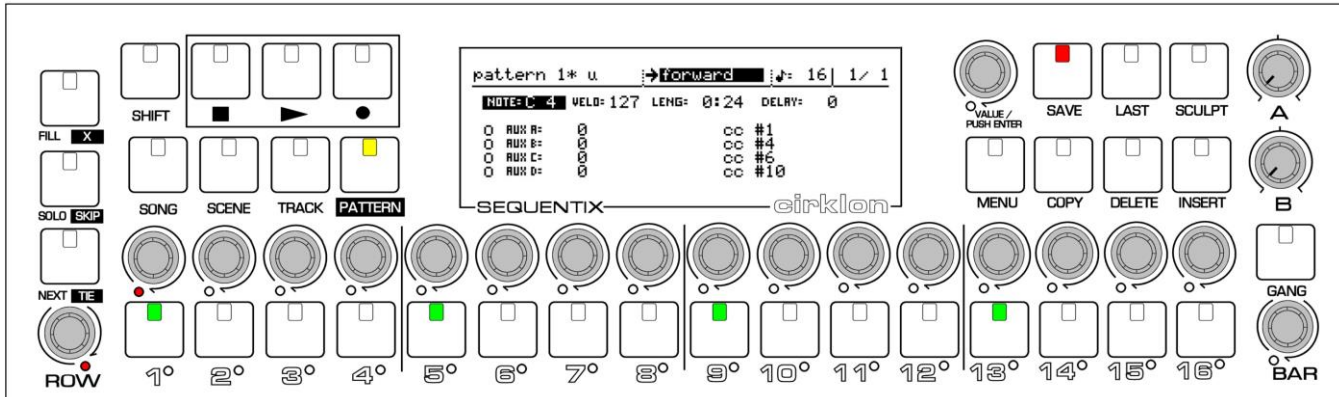
In a newly created pattern, the step keys will be assigned to the gate flags, and the encoders to the note values.

Turn on some of the steps by pressing the step keys.

Then press the RUN key to start Cirklon running.

If you have created and assigned your instrument correctly (remembering to connect an instrument to the correct MIDI port and channel), it should start playing notes on the active steps.

For example, if you press steps 1, 5, 9 and 13, the front panel should look like this:



You can then turn some of the step encoders, to adjust the note values.

As the encoder above a step is turned to edit the value on that step, the display position will change to show all the values for the edited step, with the newly changed value updated.

A red LED below one step encoder indicates the current step.

You can switch to view the other steps without editing their values by pressing the step encoders.

To select which row value you wish to edit, turn the ROW encoder.

In step view, you will see this moves the selection highlight through the different values.

Normally the step keys are assigned to the gate flags.

These control whether a note is triggered on each step.

If you select one of the four auxiliary rows, the step keys will be assigned to the status flags for that aux row.

These control whether a CC message will be sent, or an aux event triggered on each step.

The selection of gate and the four auxiliary flags is therefore linked to the row selection.

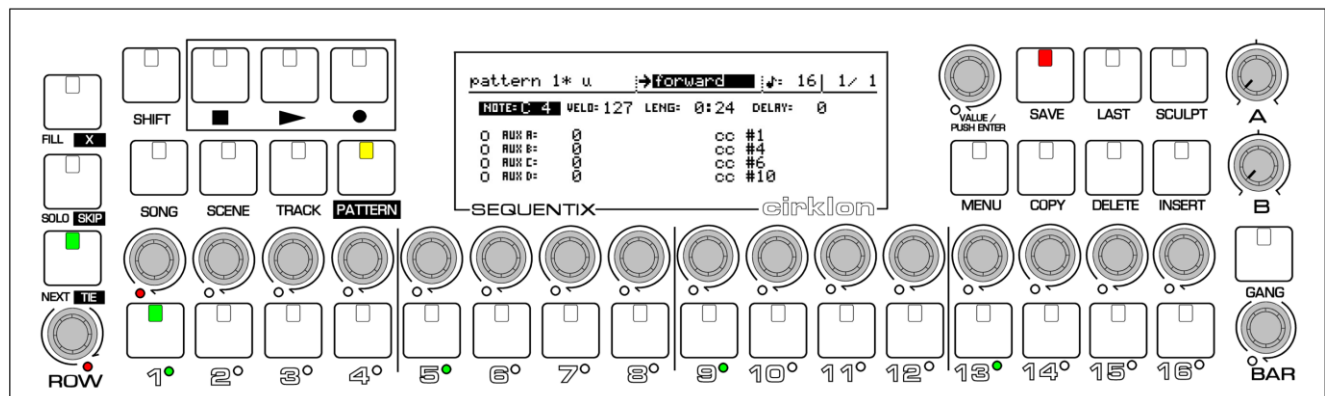
To access the remaining three flag values – tie, skip and X, there are dedicated keys on the far left of the front panel.

When one of these keys is pressed, its LED will light.

The LEDs in the step keys will now show the status for the selected flag.

The current gate status will appear on the LEDs just below the step keys, so you can still see which steps are active as you decide where to apply ties, skips and X's.

In the example above, if you press the TIE key, then set the tie flag on step 1 only, the panel should look like this:



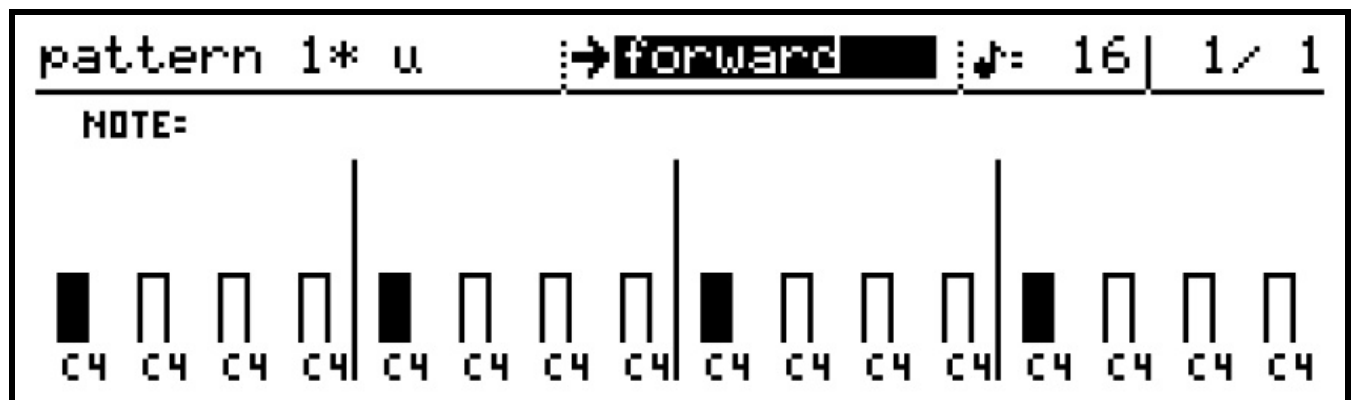
The TIE key is lit to show the step keys are assigned to the tie flags.

The LEDs under the steps show the gate flags.

Step 1 is lit to show tie is active on that step only.

While the step view shows every value for single step, the **row view** shows the current row values for every step in the current bar.

Press the ROW encoder, or the PATTERN key, to switch to the row view:



Pressing ROW once more will switch back to the step view.

In the row view, the 16 bars for note, velocity, length or delay will be filled in if the gate flag for the step is active – as can be seen for the active steps 1, 4, 9 and 13.

On the aux rows, the bars will be filled on each step that the aux is enabled.

The appearance of the bars is slightly altered for the length values.

Since the length value can cover a wide range, from fractions of a step up to whole numbers, the width of the bars is used to indicate whether the length is one or more steps long.

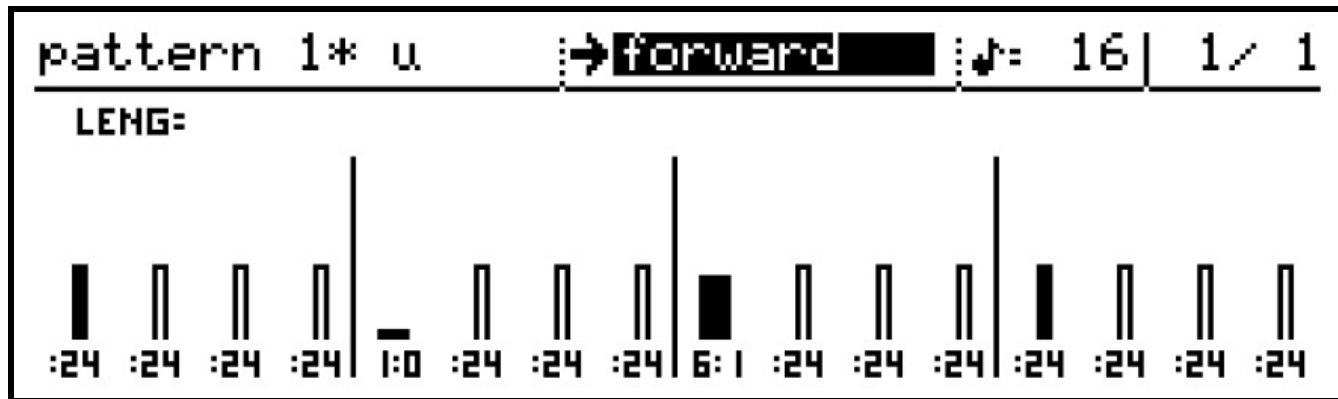
The number indicator also changes range to suit.

In this example, step 1 has a length of 24/48ths of a step, shown as :24

Step 5 has a length of 1 whole step, shown as 1:0

Step 9 has a length of 6 and  $\frac{1}{4}$  steps, shown as 6:1 – once the length is beyond one step, it increments in quarters, rather than 48ths of a step.

The bars for a length of less than 1 step are narrower than the normal bars.



In addition to the normal range of length values, there is also a special “hold” setting.

This means that the note should be held until the start of the next active step in the pattern.

Set the length on a step to hold by holding SHIFT as you turn an encoder to edit the length value. The value will appear as “hold” in step view, and a full size bar with a value of :00 in the row view.

Turn the step encoder without the shift key to return the step to the last numeric length value.

## Editing Multiple Steps

Pattern edit has a couple of labour-saving features for times when you want to change the values on a number of steps by the same amount, or want to create a rising or falling ramp in consecutive values, but don’t want to go through every step making individual adjustments. These are the **gang** and **slope edit** functions.

### Gang

Gang mode is enabled in pattern edit using the GANG key, just above the BAR encoder.

The gang function allows you to link a number of pattern steps together, so that any adjustment made using the encoder for one of the ganged steps will affect all ganged steps equally.

To enable gang mode for the first time, hold down the GANG key, then press some of the step encoders in turn, though don't hold more than one track encoder together – that has a different effect.

As you press each encoder, the LED below it should light green.

This shows the step has joined the gang.

After selecting a number of steps this way, release the GANG key.

The LED in the GANG key should remain lit, as will the green encoder LEDs for the ganged steps.

Now edit the value on any of the ganged steps using its encoder.

The values of **all** the ganged steps will change by the same relative amount.

The effect is easiest to see in the row view.

Note that gang only applies to numeric values – not to the on/off flag values on the step keys. Any steps which are not ganged can be still be edited as normal, without affecting any other steps.

To turn off gang mode, press the GANG key again.

The GANG LED will go off, as will the green step encoder LEDs, restoring the single red LED on the current step.

There are various ways to change the gang selection:

- to toggle steps in and out of the gang, hold GANG while pressing the step encoders
- to remove all the steps from the gang, hold the DELETE key and press GANG
- to invert the gang, i.e. to toggle the gang state of every step, hold SHIFT and press GANG

A further option allows you to quickly gang a repeating pattern of steps.

If you hold the GANG key, then hold one step encoder and press another step encoder so both encoders are held at the same time, those two steps will be added to the gang, along with all the other steps in the bar at multiples of the spacing between the two selected.

For example, to gang every even numbered step:

- hold GANG
- hold step encoder 16
- press step encoder 14

Steps 14 and 16 will be ganged.

The gap between steps 14 and 16 is 2 steps, so every other step a multiple of 2 steps from steps 14 and 16 will also be ganged.

In this case, that means every even step.

Try it with other patterns.

Note that holding GANG and pressing two adjacent steps will gang every step.

## Slope Edit

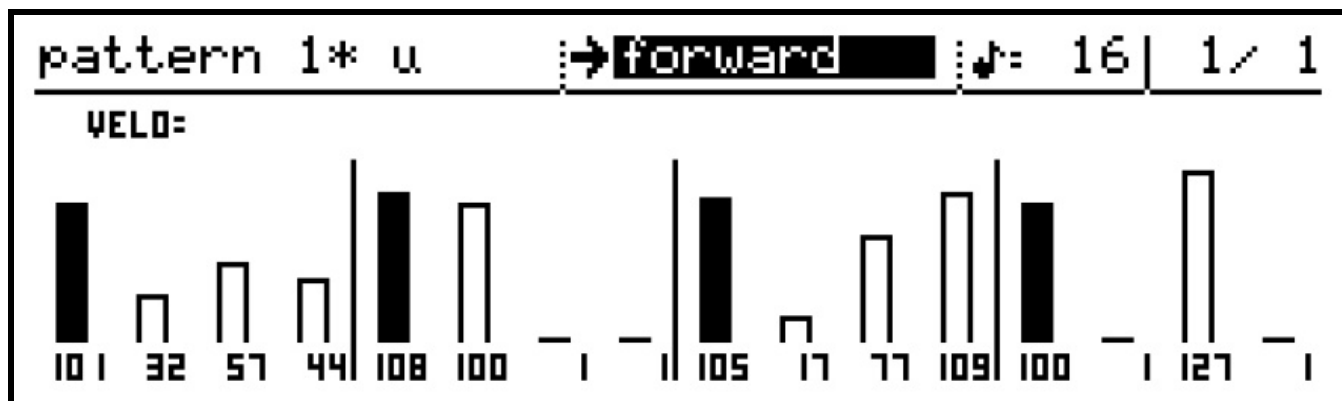
The second multiple-step editing function is slope edit.

This option allows you to adjust the first or last value in a range of steps such that the step values in between follow a straight line between the first and last values.

To use slope edit, hold the step encoder for the first or last step in the range of values you wish to edit. Then, adjust the step encoder at the other end of the range.

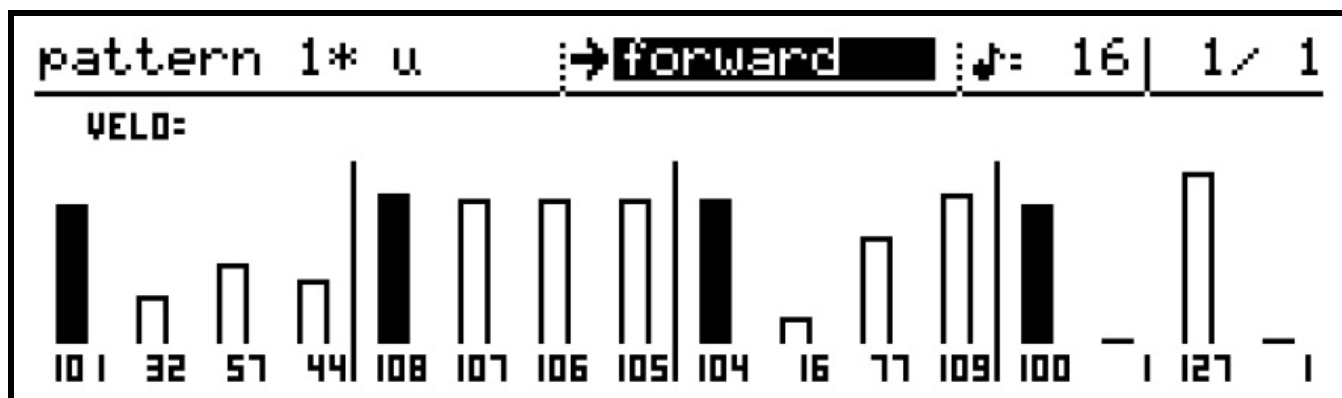
This is best done in row view, so you can easily see the effect.

For example, here is a pattern with varying velocity values:



If you were to hold the encoder for step 5 (which has a value of 108), then turn the step encoder for step 9 (which has a value of 105) down by one, step 9 will have a new value of 104.

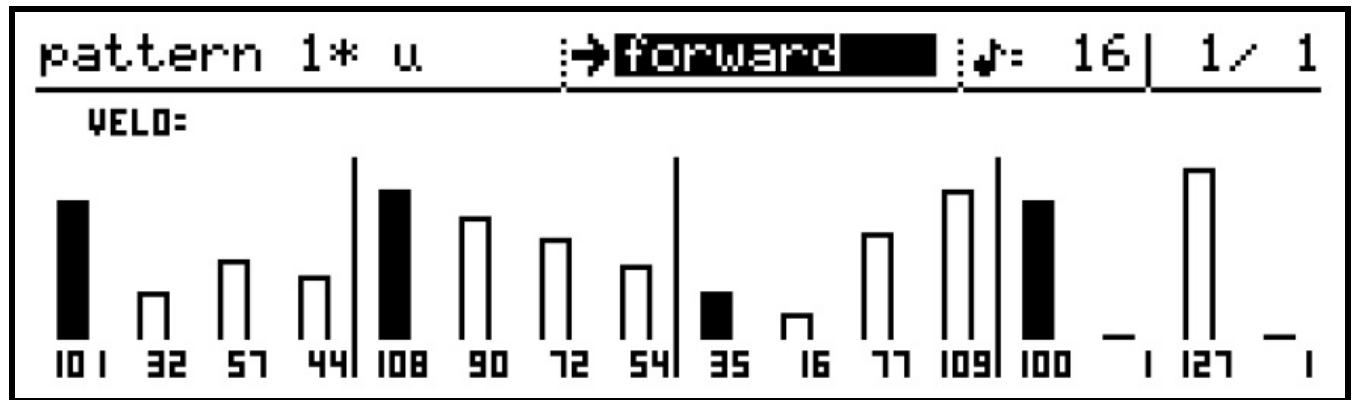
However, since step 5 was held, all the values between step 5 and step 9 will form a straight line:





As there are 4 steps from step 5 to step 9, and a difference of 4 between the first and last step values, each new value changes by 1 from step to step.

If we were then to hold step 5, and turn to reduce step 10's value by one, this would be the result:



Step 10 has decreased by 1, to 16.

Step 5 holds its value, but steps 6, 7, 8 and 9 are fitted to a straight line between the step 5 and 10 values.

This function is particularly effective for creating chromatic runs of notes and ramping velocity or controller values.

Slope edit works with coarse editing of the values.

That is, if you press and hold a step encoder that you are turning, it will adjust the value in larger increments. Indeed, both the first and last encoders can be held in and turned simultaneously, for rapid adjustment of slopes.

## Pattern Level Values

We'll take a break from editing pattern steps to look at the pattern-level values.

Most important of these are the **direction** and **timebase** values.

These values appear on the top line of the pattern edit page.

Here the current direction is forward, and the timebase is 16:



These are edited in the same way as the main values on the play pages – select the value to edit with the VALUE encoder, then press to edit the value.

Both values use a selection list, so the new value selection does not take effect until VALUE/ENTER is pressed to select it.

You can cancel without changing the selection using the MENU key.

## Directions

The direction setting for each pattern determines what order the steps will be played in. The available options are shown in the selection list:

pattern 1* u	>forward	♪= 16	1/ 1
NOTE= C 4 VELO= 108	reverse A	:LAY= 0	
	reverse B		
	alternate		
	pendulum		
	random		
	brownian		
	eitherway		
0 AUX A= 0			
0 AUX B= 0			
0 AUX C= 0			
0 AUX D= 0			

The currently active direction is shown with an arrow before it.

The behaviour of each direction is shown in the following table:

Direction	Behaviour
forward	Steps play in ascending order, looping back to step 1 after the last step is reached
reverse A	The pattern will play in reverse, starting from step 1, and looping back to the last step after step 1
reverse B	The pattern will play in reverse, starting from the last step, and looping back to the last step after step 1
alternate	The pattern will play in <b>forward</b> then <b>reverse B</b> directions, as described above
pendulum	The pattern will play forward until the last step, and then reverse direction without playing the last step twice
random	Steps will play randomly
brownian	After each step the pattern will randomly: <ul style="list-style-type: none"> <li>• move to the next step (50% chance)</li> <li>• move to the previous step (25% chance)</li> <li>• repeat the current step (25% chance)</li> </ul>
eitherway	There is a 50% chance of moving to the next, or previous step. It could go either way.

Note that steps with **skip** set are skipped in all direction modes.

References in the above table to step 1 really mean the lowest numbered step without **skip** active.

Changes of **direction** take effect immediately. This could lead to a pattern getting out of step with the patterns on other tracks.

To prevent this, after a change of direction, the pattern is flagged for re-synchronisation at the next global bar loop.

The global bar will be described fully in a later section, but briefly it provides a reference for the start of a common 1-bar loop, so irregular length patterns can be kept in step.

## Timebase

The **timebase** setting determines the duration of each step as a division of the tempo.

The available timebase values are shown below:

1	2	4	8	16	32	64	2T	4T	8T	16T	32T	64T	Prh
---	---	---	---	----	----	----	----	----	----	-----	-----	-----	-----

The default timebase is **16**.

The numbers relate to the equivalent note length of one step.

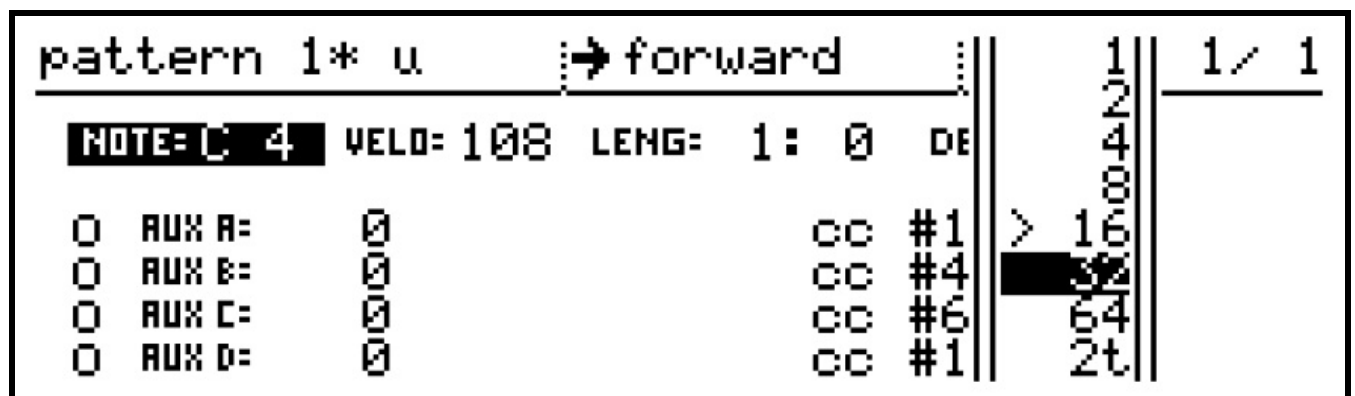
For example, timebase **16** means each step lasts for one **sixteenth** note.

The timebase settings with a **T** after the number are **triplet** settings.

Lastly, Cirklon includes a special timebase setting '**Prh**', for Polyrhythm.

This special option is used along with the "Last step" option, and is described on the following page.

There are more timebase values available than will fit in the height of the display, so you will find that the selection list will scroll up or down to allow access to all values:



As with direction, changes to the timebase value take effect immediately, but the pattern will be flagged for re-sync with the global bar.

## Last Step

Although each bar of a P3 pattern has up to 16 steps, you may want to use fewer for a shorter pattern.

This could be done by setting later steps to skip, but a simpler method is to use the bar's **last step** value.

To set the last step, hold down the LAST key. While LAST is held, all the step LEDs will go off, except for the LED in the step which is currently set as last step.

Press any step key to set that as last step.

A useful tip here is that the LAST key is double-click-sticky.

For one-handed operation, you can press the LAST key twice in rapid succession.

The LED will lock on, allowing you to select a new last step in the pattern without having to hold both keys at once.

Another useful tip: SHIFT and LAST will specify a new length for the current bar only.

## Polyrhythm Timebase

When the Prh timebase is selected, each step lasts for an equal division of the whole bar, according to the number of steps set by the Last Step operation.

Typically you'd use this to spread an odd number of steps across a regular 4/4 bar.

The easiest way to experience its effects is to create a 1 bar **Prh** pattern then listen to the timing as you dynamically vary the Last Step.

As you reduce the Last Step value, the notes that remain active are forced into sometimes unusual positions in order to fill the bar. The results can be odd, interesting or even startling.

## Bar Length

A P3 pattern can be up to sixteen bars in length – a maximum of 256 steps.

To adjust the bar length of a pattern, hold the LAST key as you turn the BAR encoder.

New bars will be added to the end of the pattern, and the new length of the pattern in bars will be updated in the top right of the display:

pattern 1\* u    → forward    ♪= 16 | 1 / 4

To select one of the new bars for editing turn the BAR encoder.

You can set pattern edit to automatically follow the current bar in the pattern as it plays using the **bar follow** option.

To activate bar follow, press and hold the BAR encoder, turn it one step in either direction, then release it.

A message box should briefly appear in the display to confirm that bar follow is active:



The BAR encoder LED will also turn red.

You can use the same gesture (press, hold & turn BAR) to deactivate it again.

Bar follow will be deactivated automatically if you turn any of the step encoders.

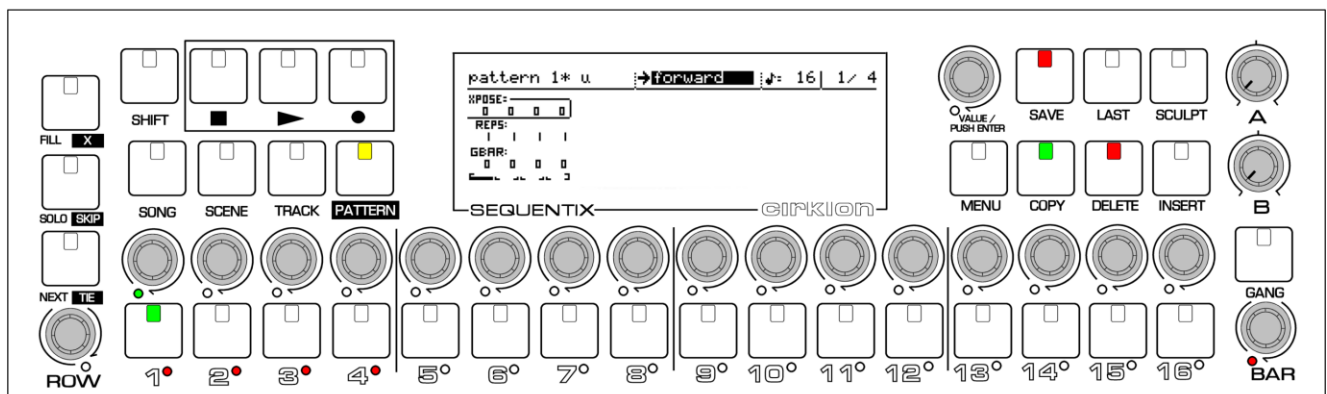
This is to prevent inadvertent edits to steps in the wrong bar if an encoder is being turned as the bar advances.

Now that there are multiple bars in our P3 pattern, we can take a look at some values specific to each bar. These are found in the bar edit page.

## Bar Edit

To access the bar edit mode, press the BAR encoder.

The display switches to a new view, shown here with the full panel, as it would appear for a 4 bar pattern:



Note that the ROW encoder LED, which was red in step edit, has turned off.

The BAR encoder LED will be green, unless bar follow is active, in which case it will remain red.

The step keys and encoders take on different functions while in bar edit.

The current bar playback position is shown by a single step key LED.

The length of the pattern in bars is shown in red by the LEDs under the step keys.

The encoder LEDs indicate the current bar selected for editing in green.

You can press either the step keys or encoders to change the current bar selection.

The COPY and DELETE keys also light to show that they are active for use in bar edit.

To delete a bar from the pattern, hold the DELETE key and press the step key for the bar to be removed.

## **Bar Copy**

To copy the contents of one full pattern bar to another bar in the pattern, first ensure the bar you wish to copy is selected as the current bar, either by pressing the step key or encoder, or turning the BAR encoder.

Hold the COPY key, then press the step key for the bar you wish to copy the current bar into. The current bar selection will remain on the source bar.

You can confirm the bar was copied by selecting the destination bar, then switching back to step edit mode by pressing the ROW or BAR encoders. All step values and flags will match the source bar.

## **Bar Extend and Copy**

You can simultaneously increase the bar length of a pattern and copy the current bar into all new bars added using the extend and copy function.

This operation is performed by holding COPY, then pressing a step key to select a destination bar which is beyond the current last bar of the pattern.

The bar length will be increased, and any new bars added will be copies of the current bar within the previous pattern length.

## Bar Values

Let's look more closely at the bar edit display:



There are three rows of values in the lower part of the display, labelled XPOSE, REPS and GBAR, with one of each value for every bar in the pattern.

These values are edited using the step encoders for each bar number.

You can select which row of values to edit by turning the ROW encoder.

The XPOSE values allow you to transpose each bar up or down by up to 5 octaves.

The REPS values allow you to set each bar to repeat up to 99 times.

The GBAR value can be 0 or 1, to represent OFF or ON.

This is the global bar sync option. When active (set to 1), the bar will be reset to its first step every time the global bar loops.

This will only have an effect if there are steps skipped in the bar, or its last step has been set such that the total number of steps playing in the bar is not a factor of global bar length.

The practical result is that an odd-length bar will play for the full length of the global bar before the pattern advances to the next bar.

Remember that the global bar value is set on the scene page – by default it is 16. Larger values are worth experimenting with, especially if you wish odd-length bars to play multiple times before resetting.

## Bar Loops

It is possible to set a bar loop within a P3 pattern.

Any bars before the start of the loop will play only once when the pattern starts to play.

Once in the loop section, the pattern will return to the first bar of the loop after the last.

Any bars in a pattern after the loop end will never play.

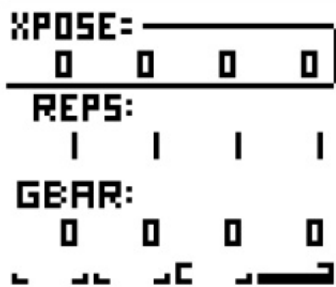
To set a bar loop, hold the SHIFT key, then press two of the step keys in turn, to set the first and last bars of the loop section.

The LEDs below the looped bars will remain red, but bars before or after the loop section will show amber.

You may have noticed the graphic below the bar values.

This shows the length of the pattern in bars and the current bar playing, and any bar loop.

For example, if we loop bars 3 and 4 of a 4 bar pattern, the value display would look like this:



- the larger marks around bars 3 and 4 indicates the loop limits.

The bar 4 marks are filled to show it's the current playback position.

### Inserting empty bars

It's possible to insert a new bar in your pattern, moving the following bars along.

Hold INSERT and press a step key to insert an empty bar at that point.

## More On Step Editing

Let's return to step edit, and look at some more advanced operations.

### Copy / Insert

Any number of steps in a P3 pattern can be copied to a clipboard, then inserted (pasted) at another location in the same pattern, or into another P3 pattern.

To copy steps, press the COPY key. This message will appear briefly:

Select first step to COPY



The COPY key will flash to show that a copy operation is expected, and the top line of the display will show:

```
COPY: <select> | 1/ 4
```

Press the first step of the section to be copied.

For example, if you press step 1 of the first bar in the pattern, the top line will now show:

```
COPY: bar 1 step 1 to <select> | 1/ 4
```

Then press the last step of the section to be copied.

Note that you can use the bar encoder to move to another bar of the pattern before pressing the step key.

As soon as you press the second step key, a brief message will confirm the length in steps of the copied section:

```
Copied 64 steps to clipboard
```

Now you are ready to insert the clipboard contents elsewhere in the pattern.

Or you can return to play mode to select another pattern for editing if you wish to copy steps from one pattern to another.

To insert the clipboard contents into a pattern, press the INSERT key.

The top line of the display will change to something like this:

```
INSERT: 64 steps of all | 1/ 4
```

It shows the number of steps on the clipboard, and a filter for the values to be inserted.

When you copy steps, the values from every row are copied for each step, but when you come to insert them, you can choose which values are to be changed.

The filter option is changed using the VALUE encoder.

The options are:

- **all**               all row and flag values
- **all -aux**       all row and flag values, except for the aux rows
- **auxes**           only the aux rows
- **note**           only the note values
- **velo**           only the velocity values

- **length**      only the length values
- **delay**      only the delay values
- **flags**      only the gate, tie, skip and X flags
- **aux A**      only the aux A values and flags
- **aux B**      only the aux B values and flags
- **aux C**      only the aux C values and flags
- **aux D**      only the aux D values and flags

To insert the selected values into the pattern, press the step key where the first step in the clip should be written. The full length of the clip will over-write each step from that point on.

If the end of the pattern is reached before the full clip has been inserted, insertion will wrap to the start of the pattern and continue.

When copying steps to the clipboard, if you select a last step before the first step, the selected steps are copied to the clipboard in reverse order.

Small sections, or the pattern can be reversed in this way.

Note that bar values are not copied using step copy and insert.

## Sculpting and Randomisation

The sculpt feature allows you to use knobs A and B to continuously edit the values of a pattern as it plays.

Sculpt must first be enabled by holding the SHIFT key and pressing SCULPT.

The SCULPT key will light to show it is now active.

The top line of the display will also switch to show the sculpt *mode*, and a preview of the values for the current knob positions.

While sculpt is active, and the pattern playing, holding the SCULPT key will modify the value for the current row and step, according to the knob positions.

There are four sculpt modes. You can change mode by pressing VALUE/ENTER, then selecting the new mode by turning and pressing ENTER once more.

The four modes are:

*Sculpt ABS* - the position of knob A will over-write the value in each playing step.

*Sculpt REL* - the position of knob A will adjust the stored value by a **relative** amount. This can be a positive or negative offset, with zero effect at the mid-position of the knob.. If you hold SCULPT as the pattern repeats, each step will move incrementally further from its original value.

*Random ABS* - each playing step value will be over-written with a value randomly chosen from the range of values set by knobs A and B. It doesn't matter whether knob A or B is greater.

*Random REL* - each step is adjusted by a random offset, again in the range between knobs A and B. Multiple passes will cause a cumulative change to the stored values.

The best way to appreciate the effect of these functions is to experiment with them while looking at the row view.

## Audition

This is a useful feature if you are editing a P3 pattern while playback is stopped.

If you hold a step encoder, then press the step key below it, the note value on that step will be sent to the assigned instrument, so you can confirm the note selection by ear.

## Configuring the Aux Rows

In a new P3 pattern, the aux rows are assigned to some commonly used MIDI CC numbers. Each aux row can be configured to use any other CC number if required.

They can also be used to send MIDI after-touch, pitch-bend, program change and NRPN messages, or they can be assigned to a range of “aux events”, which will be described in a later chapter.

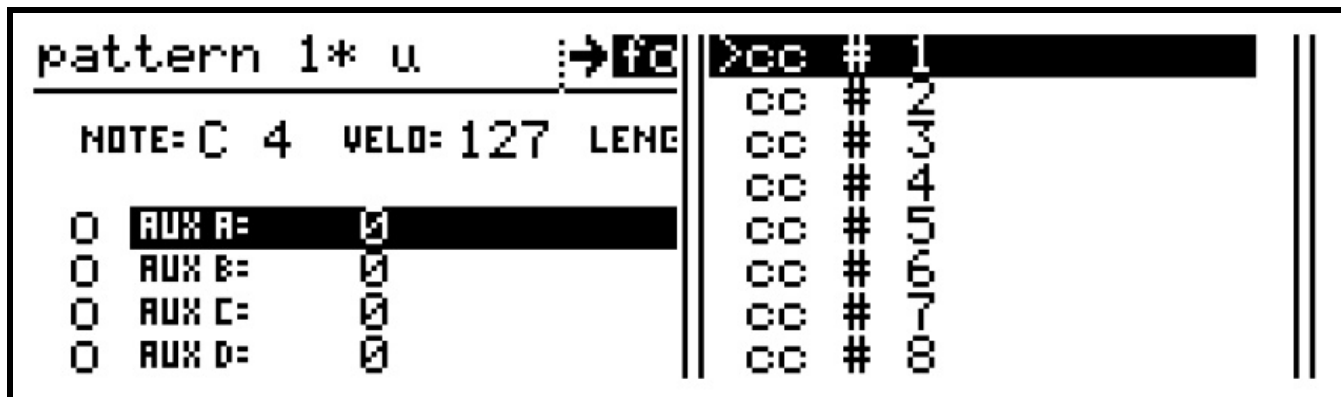
To change the assignment of an aux row, first make sure it is selected as the current row using the ROW encoder.

Then press and hold the ROW encoder.

While *holding* it in, *turn* it one step in either direction.

This gesture will bring up a selection list on the right of the display.

For a row currently assigned to a MIDI CC, the list will look like this:



The arrow next to “cc # 1” shows that this is the current assignment for the row.

Use the ROW encoder to scroll to a new CC number to assign, and press ROW to confirm the selection.

If you want to cancel the operation, press the MENU key.

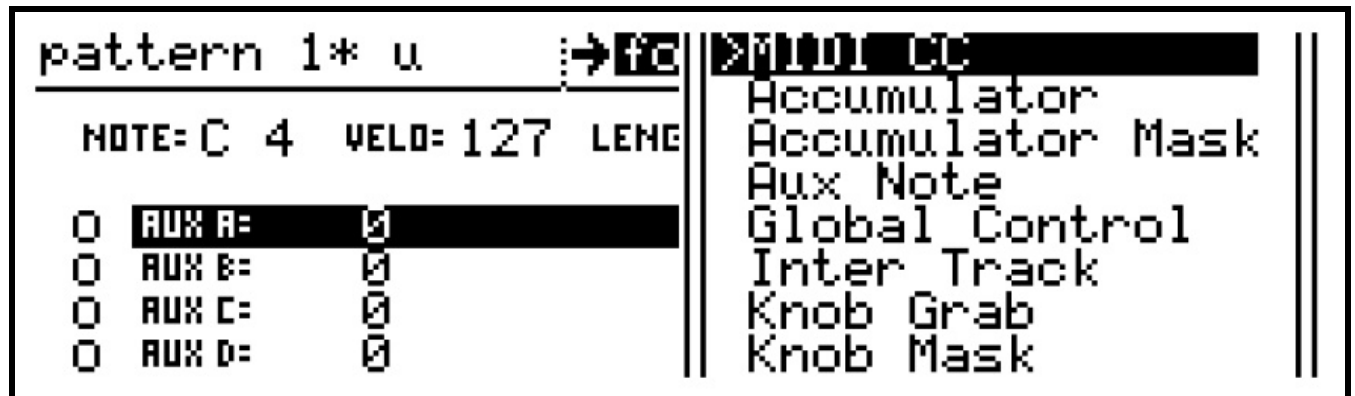
Scrolling through this list, you will see only MIDI CC values.

For the other MIDI message types and the aux events, there is a second level selection to access groups of all possible aux assignments.

Press, hold and turn the ROW encoder to access the first level selection list.

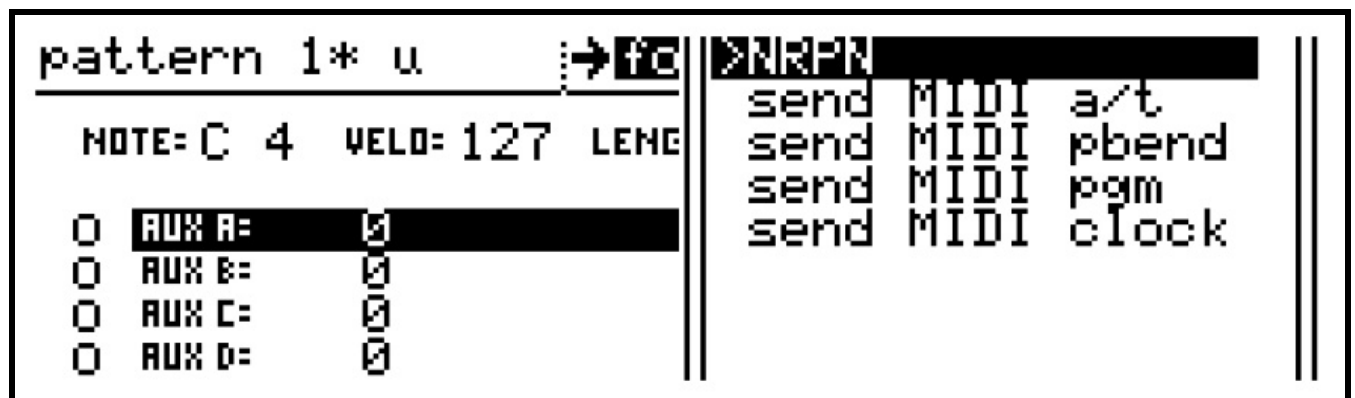
Once in the list, press, hold and turn ROW a second time.

The group list should then appear:

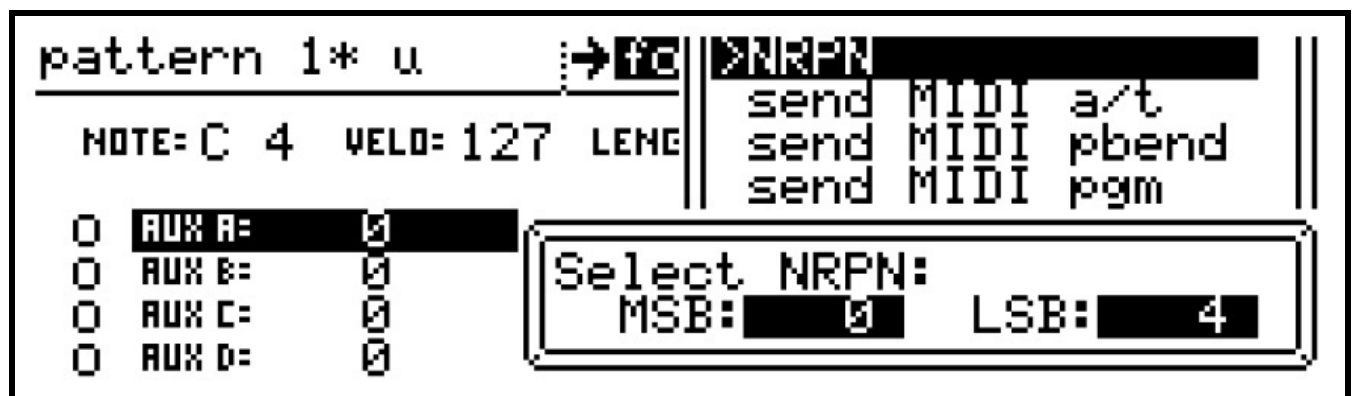


Most of the entries are groups of **aux events**. Their use is covered in detail in a later section.

To send other types of MIDI message, scroll down and select the "MIDI Send" group. Pressing ROW will take you back to the first level list for the new group. In the MIDI Send group, the options are:



NRPN messages require one or two parameter selection numbers (MSB and LSB), so if you choose the NRPN option, an extra step is required to configure those values:



While the “Select NRPN:” option is shown, step encoders 9 and 11 (which are directly below the MSB and LSB values on the display) will light red.

They are used to select the required MSB and LSB values.

With the selection made there, press ROW once more to confirm the new assignment of an NRPN to the aux row.

### ***P3 Edit Menu Options***

Further edit operations can be found on the edit menu.

This is accessed from the top level edit pages (step or bar edit) by pressing the MENU key.

While the menu is active, a number of options appear along the bottom of the display:

pattern 1* u		→ forward		16		1 / 1	
accumulators:							
note: 0		velo: 0		auxD: 0			
first	on		apply	aux	accum		
step	resync	sync	FTS	macro	conf		

The step encoders under each of these options will light red as a visual cue that the menu is active. The encoder below each option is pressed to select it.

### **First step**

The first step function allows you to pick any step in a pattern, and have the entire pattern rotated such that the chosen step becomes the first step of the first bar of the pattern.

After pressing encoder 6 to select this option, a brief message will appear, then the top line of the display will show:

Select new FIRST STEP	1 / 1
-----------------------	-------

Press the step key for the step you wish to become the new first step of the pattern, and all steps will move around accordingly.

To cancel the operation before selecting a new step, press the MENU key.

Note that bar values are not moved in this operation.

## **ReSync**

The resync menu option toggles the automatic resynchronisation of patterns on or off.

Patterns are normally resynchronised at the end of the global bar whenever an edit is made that changes the effective length of the pattern.

Such edits include changes to direction, timebase, step skipping and bar length.

## **Sync**

The sync function allows you to manually reset pattern playback to the first step of the bar.

## **Apply FTS**

This option permanently applies the current “force to scale” setting to the notes of the pattern. Force To Scale is a scene-level setting, and will be covered in the following chapter on scenes.

## **Aux Macro & Accumulator Config**

The aux macros are pre-defined sets of aux event assignments for the aux rows.

The accumulator config page allows you to alter pattern settings related to advanced use of aux events. Please refer to the later section on aux events.

Having covered just about everything in pattern edit for P3 patterns, let’s get back to some higher-level operations.

## **PATTERN CLEAR Short-cut**

To quickly wipe the contents of the current pattern, retaining only the bar length setting, you can hold the DELETE key, and press PATTERN.

A confirmation page will prevent accidental use. This feature is handy when you just need to start from scratch.

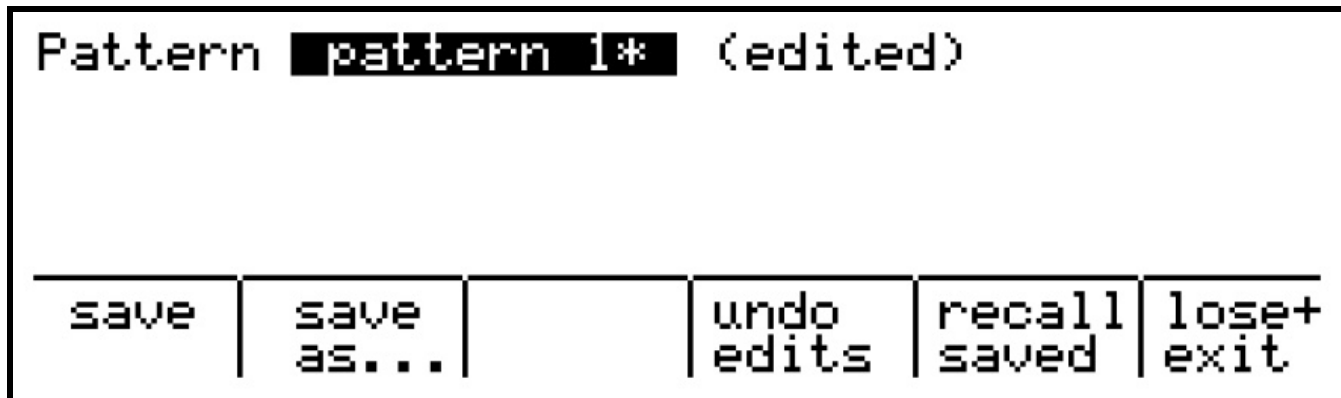
## Saving Patterns

A newly created pattern will not be lost when you exit from pattern edit mode.

However, saving a pattern allows you to protect the pattern so that further edits can always be undone, restoring the pattern to the state it was in at the time of saving.

You can also save an edited version of a pattern as a new pattern, leaving the original pattern as it was before the recent changes were made.

The pattern save menu can be accessed in pattern edit by pressing the SAVE key:



Depending on the state of your pattern, not all of these options will appear.

It is always possible to undo changes made to a pattern since you most recently entered pattern edit mode.

For a pattern which has been saved, there is also a second level of undo, which allows you to reverse any changes made since the point at which the pattern was saved.

A newly created pattern will be **unsaved**

In this case, the save menu will only show the choices of “save” and “save as...”.

The “save” option will mark the pattern as saved.

“save as...” will prompt for a new pattern name, then create a copy of the pattern under this new name, also marking this new pattern as saved.

After you make changes to a pattern which has previously been edited, you will see the “undo edits” option.

This option undoes only the changes made to the pattern since you most recently entered pattern edit. This option will appear for saved or unsaved patterns.

If you edit a saved pattern, the “recall saved” option appears.

This option reverses all changes made to the pattern since it was saved.

Finally, the “lose+ exit” option will undo the most recent changes to a pattern, and exit from pattern edit mode. This will be equivalent to “undo edits” if there have been changes made



since you entered pattern edit, but it will restore the saved version of the pattern if no changes had been made.

## Saving Patterns – to SD card / internal flash

There's an extra option for saving patterns as a separate file to an SD card in the rear panel slot, or the internal flash storage (according to the current setting chosen on the card LOAD or SAVE menu – see the later chapter on storage for more details).

This can be useful when there are patterns you wish to use in multiple songs – e.g. specific metronome grooves or favourite Aux event combinations.

In pattern edit, press SAVE, then COPY. A menu similar to this will appear:

```

[VALUE] pattern: "HH-RAND"
  to file: HH-RAND.CKP
[Save path]:
  SD: /
  
```

It shows the current pattern name and the filename that will be created in the folder specified by "Save path". You can change the filename or path by turning the VALUE encoder to select either value and pressing to edit the filename or select a different folder.

If the idea of saving these 'template patterns' appeals, consider adopting meaningful names from the start. Life's confusing enough.

To load a pattern saved in this way elsewhere, go to the track where you'd like to use it and go to the pattern selection list. Then press INSERT, and the file load menu will appear. Select the pattern to load, and press ENTER to confirm.

```

LOAD SD: /
-----
[temp]
4-4.CKP          13/05/2013    20:25  ▲
HH-RAND.CKP      02/02/2020    14:55
MADMETRO.CKP     02/02/2020    14:57
PRC-REPC.CKP     02/02/2020    14:56
PUSH-HLL.CKP     02/02/2020    14:58  ▼
  
```

