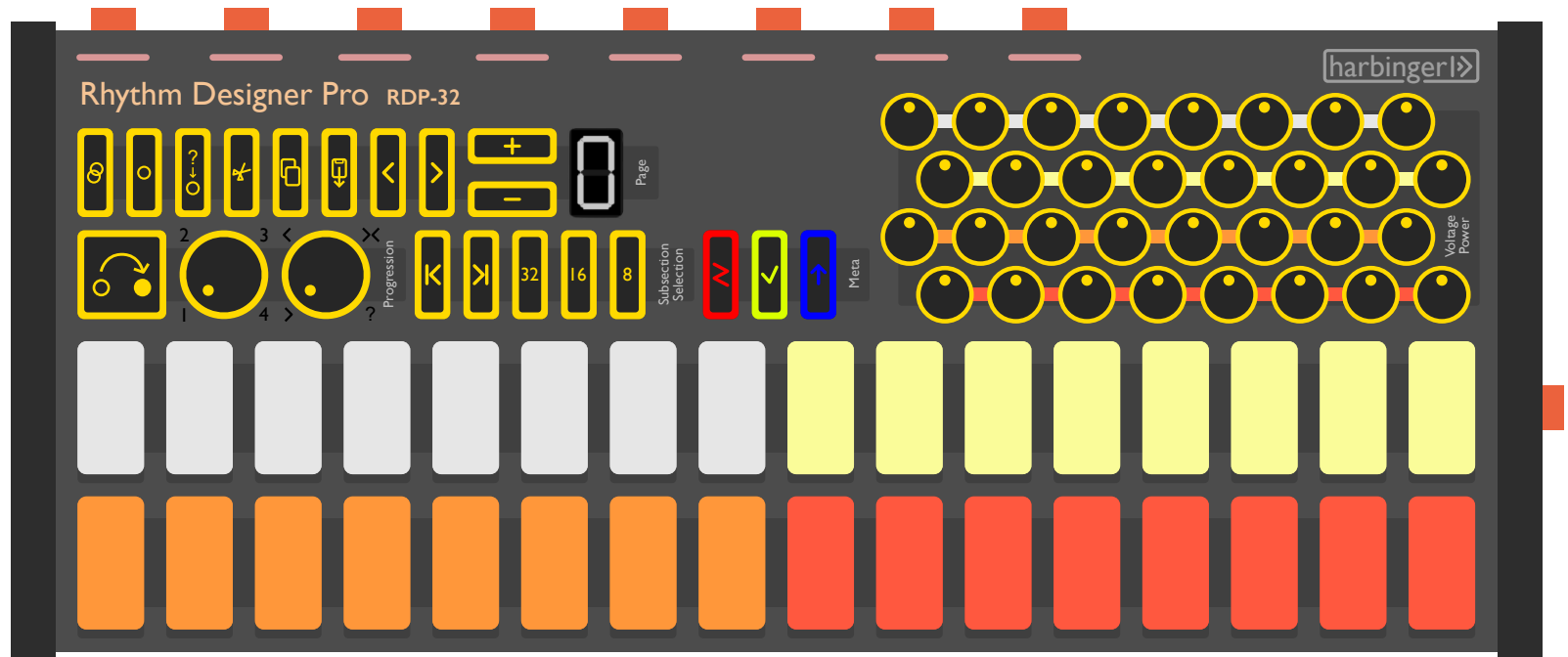


harbingerl>>

Hello

Congratulations and thank you for purchasing the Harbinger Rhythm Designer Pre! Please read this owner's manual carefully before using the instrument in order to take full advantage of its various features. Make sure to keep this manual in a safe and handy place even after you finish reading, and refer to it often when you need to better understand an operation or function.

We hope that you enjoy this product. We certainly are very proud of it, though if you encounter any issue, or notice something you believe to be a defect, please contact your local dealer. Or if they are unable to help you, contact us by e-mail at help@harbinger.com

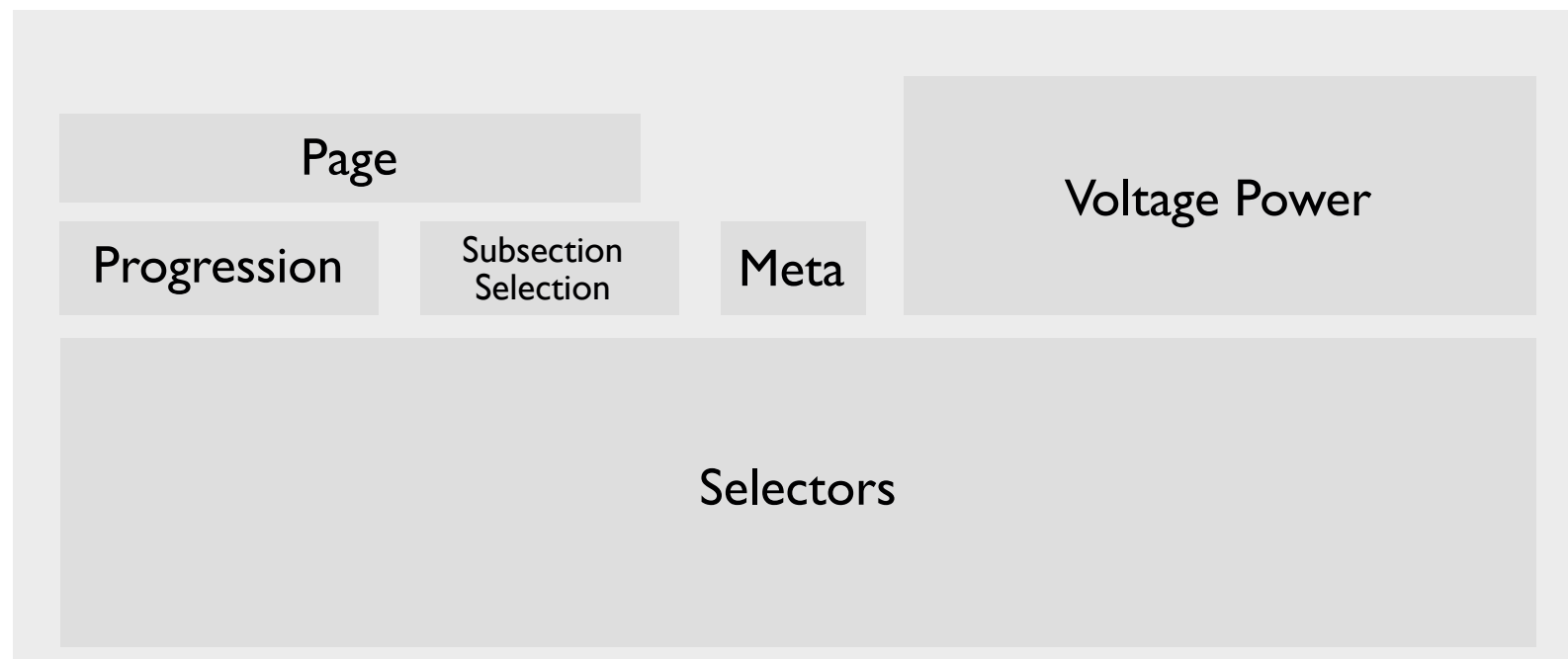


Overview

This Rhythm Designer Pro, is an eight channel, sixteen page, thirty-two step sequencer. Complete with Signal or Voltage transmission output, step release adjust, sequence advancement direction control.(advanced using either using the “Step” button, or from a Signal input.) cut/copy/paste functions, sequence region select, individual Voltage power controls for each step and a “Play Through” mode. The device also comes with a “Unify” mode, which allows for control over all channels with the same actions normally used with a single channel.

This instrument’s connections follow the Coordinated Universal Interworking Standard (CUIIS) and as such can be used with any product from any manufacturer that also adheres to this standard.

The instrument can be simplified into six major function areas. The layout of these areas can be seen in the diagram below



Surrounding these areas is the “wider unit” which consists of the Signal input ‘step’ port on the right side, eight output transmission ports at the top, and just below them the eight Selected Channel Indicator lights.

Basic Sequencing

A full sequence contains 32 steps. Each step is represented by one of the 'selectors' on the lower half of the device (those white, yellow, orange and red buttons). A step in this sequence can either be active or inactive, which you can see by whether the central light of a selector is lit.

You can change this by pressing the selector. The current play position in the sequence is shown by which selector's ring light is on. Pressing the 'step' button (or activating the incoming signal step port) will cause this play position to move to the next step in the sequence. When the play position meets a selector that is active, the device will set the output signal connection port to 'active'. When it meets one that is inactive, the device will set the output signal connection port to 'inactive'. If two selectors in a row are set to active, then when the play position moves between them the output port will send a second 'active' signal.

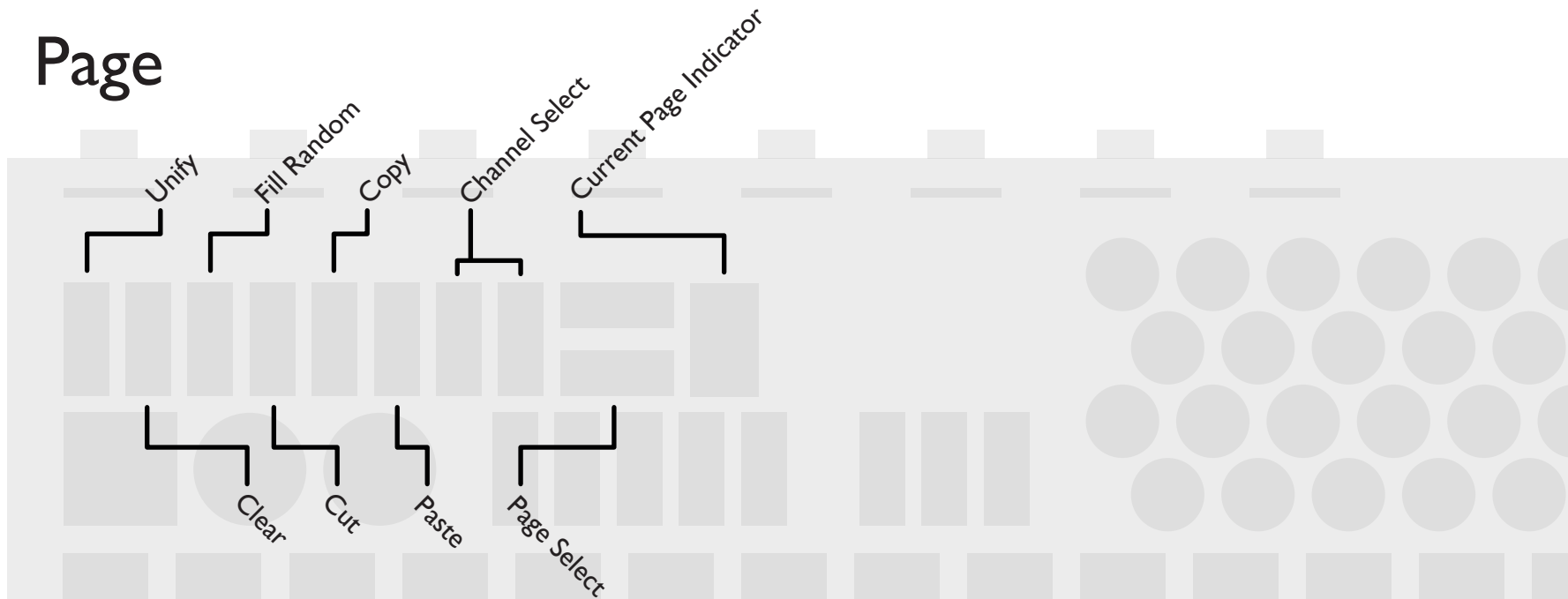
You might have noticed that there are eight output signal connection ports. Each of these ports are attached to their own 'channel', which contains a sequence. The selectors will change to show the sequence of the channel highlighted by the indicator below its port. You can select which of the eight channel sequences you want to work with using the 'Channel Selection' buttons. Each of the eight sequences use the same play position. If you try to go off either edge of the eight channels, the selection will loop back around to the other side.

A sequence can have all its steps set to inactive by pressing the "clear" button.

Function Areas

Here, the six major function areas are described in detail. Though the buttons and dials have been organized into groupings with similar functions or concepts, most of the areas will interact with or rely on each-other in some way.

Page



In addition to having eight channels, each channel contains sixteen sequences. These different sequences are called 'pages', and so each channel has sixteen pages of sequences. You can see which of the eight pages is currently active on a channel by selecting that channel, and looking to the 'Current Page Indicator' LCD screen. You can change which page you're on with the 'Page Select' buttons to the left. Similar to the channel selection; if you try to access a page after number 16 or below 0, the system will loop back around to the other side.

The 'Random Fill' button which - as the name suggests - fills the sequence with randomly selected values.

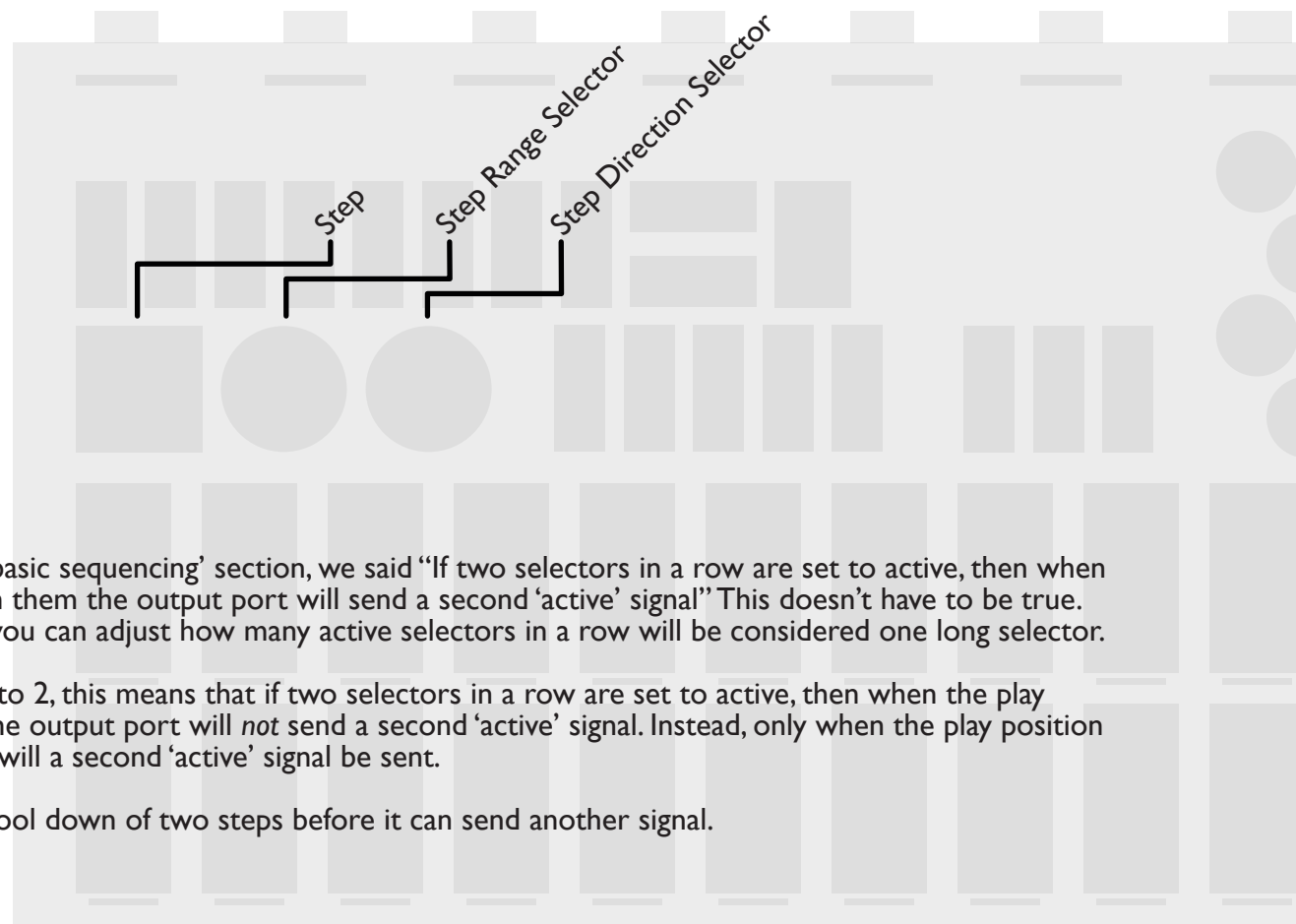
With the 'Unify' option set to active, the 'Page Select' buttons will set the page number for all channels. This can be a great way of switching between multi-channel rhythms quickly. The 'Clear' button will clear the currently active pages for all channels. 'Random Fill' will produce a random sequence for the currently active pages for all channels.

The 'Cut/Copy/Paste' functions are exactly what you would expect them to be, and with them one can move sequences around the pages and channels without having to manually transcribed them over. For example, to cut-paste a sequence, have the sequence visible on the unit then press the 'Cut' button. Afterwards, navigate to the desired destination sequence and press the "Paste" button.

As the LCD screen only contains one character, hexadecimal is used to display all numbers. Don't worry too much about it, it just means the sequence goes; 1 2 3 4 5 6 7 8 9 A B C D E F

Progression

As described in the 'basic sequencing' section, pressing the 'Step' button will cause this play position to move to the next step in the sequence. The other two items change what sort of step that will be.



Step Range

In the second paragraph of the 'basic sequencing' section, we said "If two selectors in a row are set to active, then when the play position moves between them the output port will send a second 'active' signal" This doesn't have to be true. Using the 'Step Range Selector' you can adjust how many active selectors in a row will be considered one long selector.

For example, if we set the value to 2, this means that if two selectors in a row are set to active, then when the play position moves between them the output port will *not* send a second 'active' signal. Instead, only when the play position moves to a third active selector will a second 'active' signal be sent.

In essence; the system needs a cool down of two steps before it can send another signal.

Step Direction

As the name suggests, with this selector you can change the way the system decides what the next step in the sequence will be. You have four options;

1. To the right

The next position will be the selector to the right of the current position. Unless there's no selector on the right, in which case the next position is the selector on the far left

2. To the left

Same as above, but the other way around

3. Back and forth

The next step will be to the right, until the play position meets the end of the sequence, at which point it will turn around and go the other way

4. Random

Who knows where we go next. We could even end up at the same selector.

Subsection Selection

The Rhythm Designer Pro has a rather large sequence of 32 steps, but what if you didn't want to use all of those selectors? Subsections of the full sequence can be defined using these functions.



Left / Right Region

Using these buttons, one can define any subsection within the 32. Let's say we wanted to only use the steps 5 to 8. First we press the 'Left Region' button, then the 5th selector. Immediately, the lights underneath the selectors will change, with those under selectors 1 to 4 turning out. Now we press 'Right Region' and then the 8th selector. The lights are now only glowing under the selectors 5 to 8. Now, the play position will only move within this space of 4 steps.

The exception to this is if the play position is outside the region when the region is created. If this is the case and the 'Step Direction' is set to a mode where the play position can only progress to a step to the left or right, then it will continue on as if the region wasn't there. That is until it reaches the new region, at which point it will become trapped within it. This is to allow sequences to gracefully progress between subsections, without you having to exactly time when the step should move out of a subsection.

Region 32 / 16 / 8

These buttons are essentially pre-set subsections, with regions of either 32 steps in length, 16 steps or 8 steps. 32 steps is of course the full length of the whole sequencer, so this can be used as a way to reset the selected subsection.

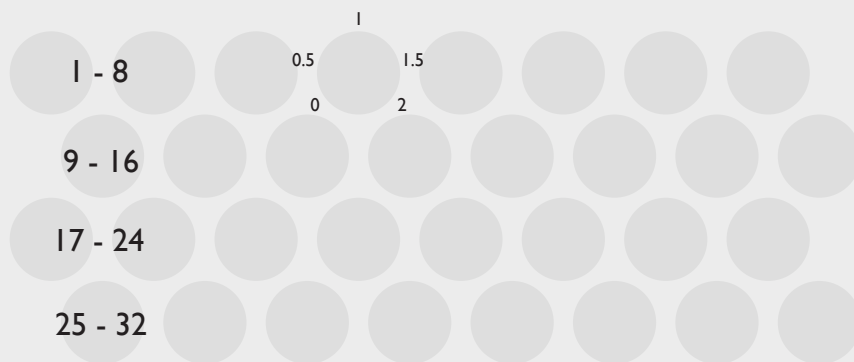
Pressing the 'Region 16' button will create a subsection from step 1 to 16. Pressing it again will create a subsection from step 17 to 32. It is a similar case with the 'Region 8'; press once for 1 to 8, again for 9 to 16, once again for 17 to 24 and finally a fourth time for 25 to 32.

As the play position is shared across all channels, the selected subsection will also effect the playback of all channels.

Voltage Power

While the output mode 'Voltage' is active, each selector can have its individual voltage controlled by these dials. These values are stored within the sequence, and will be recalled when the sequences are recalled to the selectors.

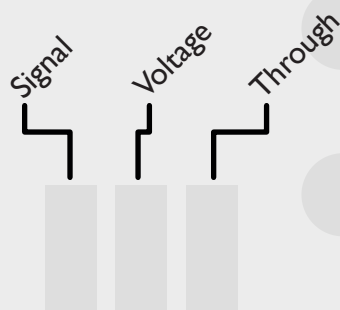
From the diagram, one can see that each of the four rows correspond to the four groups of selectors. The dials themselves range between values of 0 to 2.



Meta

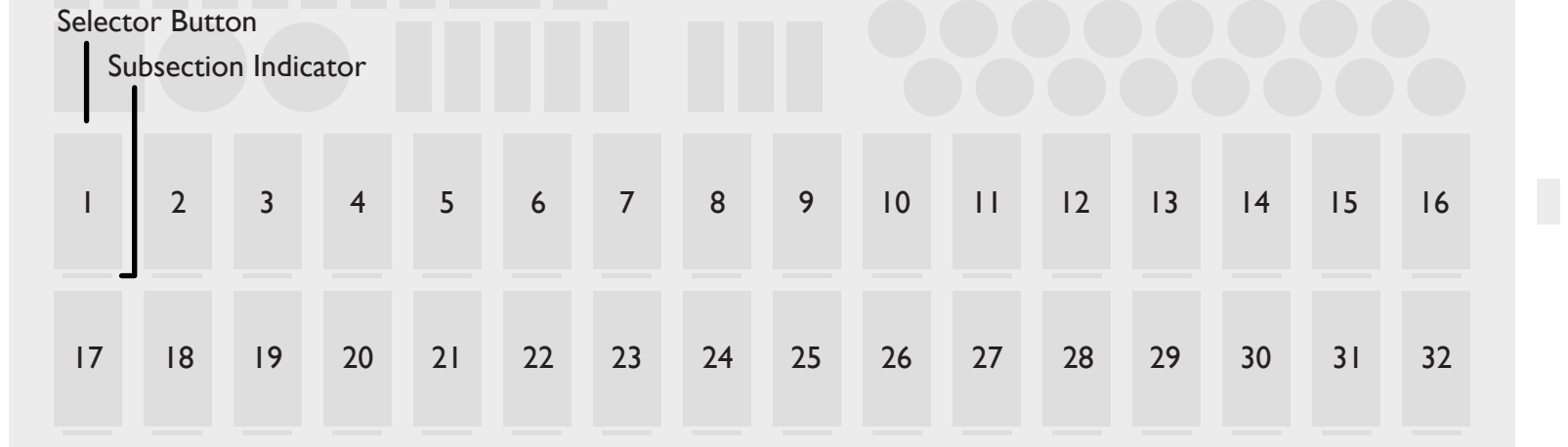
The first two of these buttons; 'Signal' and 'Voltage' can be used to select between whether the output connection ports are 'Signal' type or 'Voltage' type. Signal's are simply on and off, and the Voltage type are either 0V or 1V.

Please note that switching between types will cause any existing connections to be disconnected.



Activating the 'Through' button causes the first eight selectors of the device to directly connect to the eight outputs, allowing you to perform live out through these connections. Simply push to send.

Selectors



Selectors are the heart of a sequencer. As is described in the “Basic Sequencing” section, selectors represent your way of accessing the sequences. The first eight selectors are also used to control the eight output connections when the ‘Through’ Meta mode is active.

Selectors are also used to create subsections, with the active subsection shown with the subsection indicators below each selector button.

Notes

