

SW4-C

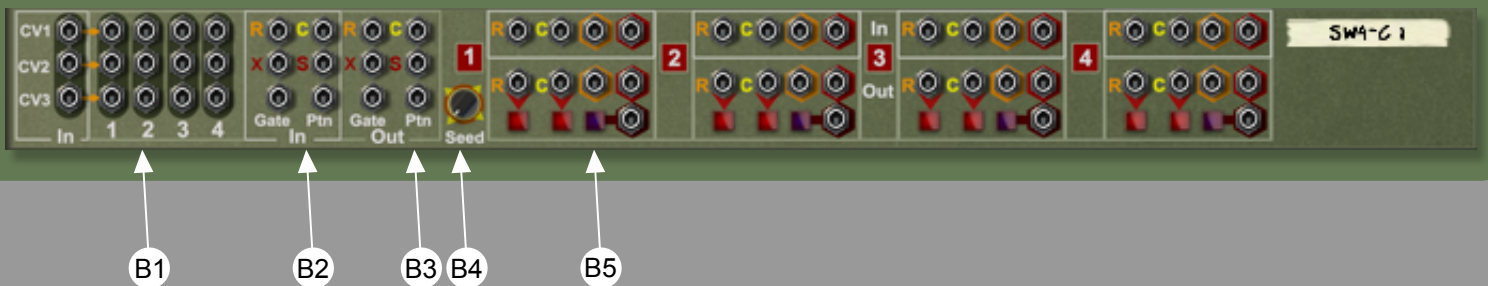
MULTI-SWITCH CONTROLLER

1

The SW4-C is a 4 way switch aimed mainly at real time performance and “Kontrolled generative” music. It is the first step towards a complete generative system in Reason.

The SW4-C is also a versatile tool that can be used in many different ways including as a small 8 button, 8 knob controller.

With a wide selection of CV inputs and outputs, The SW4-C easily works with the other devices in Reason and was designed to go hand in hand with Rack Extensions like Charlotte or TrafficControl.



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F1



The **SW4-C** has two modes.

In **MANUAL** mode the front settings are the ones taken into account to determine what will happen on a gate event. In this mode these settings are the ones sent to the corresponding CV outputs.

In **AUTO** mode the CV connections on the back panel override the front settings and are sent to the CV outputs. In this mode the front settings are active for the parameters that have no CV cable plugged in, acting as a “mixed” mode.

F2



The **SW4-C** can follow two patterns.

When **REPEAT** is selected, the progression from channel to channel is sequential. On a gate event the active channel moves to the next enabled one and to the corresponding set of outputs.

When **CHANCE** is selected, the progression from channel to channel is random

F3



The gate can be triggered by the front panel button or by the corresponding CV input on the back panel. The gate events play a major part in the way the **SW4-C** works.

Changes made to the section buttons and knobs only take effect on a new gate event.

So if section 1 & 2 are enabled in repeat mode with repeats set to 1 each, the device will toggle from section 1 to section 2 on each new gate. If between gates section 2 is turned off, and on again, the behaviour will remain unchanged on the next gate. But if section 2 is turned off and a new gate occurs the active section will remain on 1 because there are no other enabled sections.

F4



In each section the **R** button sets the number of gates the device should “stay” with that section active until moving on to another one.

The **C** button determines the chance of a section being selected on a new gate event.

So if section 1 & 2 are enabled with **C1** set at 5 and **C2** set at 9. The chances of each section being selected are 5 out of 14 for **C1** and 9 out of 14 for **C2**.

The small orange lamp indicates if the corresponding CV input is connected.

The small red lamp indicates if the button is in unipolar (off) or bipolar (on) mode

F5



The orange button is a momentary button that can be used to activate a section for a short while in switcher mode or to send a trigger to the corresponding output in controller mode.

The red button is a toggle button used mainly to enable a section, but also to control any on/off parameter when used as a controller.

The big orange light indicates if a section is enabled (by the front settings or CV inputs).

The big red light indicates the active section (only one at a time)

The two small lights indicate if the corresponding CV inputs are connected.

F6



The **Repeat** button determines if the **R** knobs of each section will be taken into account to determine what will happen on the next gate event. If it is on and section 1 & 2 are enabled with **R1** set at 2 and **R2** set at 3 the sequence for 10 gates will be 1-1-2-2-2-1-1-2-2-2.

With the same settings on the **R** knobs but with the **Repeat** button off, all sections are considered to be set at 1 so the sequence would be 1-2-1-2-1-2-1-2-1-2.

The **Chance** button acts in much the same way but this time on the chance settings.

The big orange lights indicate if the functions are active.

The small red lights indicate if the corresponding CV inputs are connected.

F7



When this setting is on the 4 position (default), all the “controller” CV outputs of the 4 sections are open. So depending on the selected mode all the front settings or all the CV inputs will be mirrored to the CV outputs. This does not concern the 12 main CV outputs situated on the far left of the device. Only 3 of these will ever be “open” at any given time.

When the setting is on the 1/4 position only the CV outputs of the active section will be “open”

F8



These settings define the way CV data entering the main inputs is sent to the main outputs of the active section.

On **R**, the data is **Relayed** as is.

On **G**, the data is **Gated**. While the gate is open the input is copied to the output and when the gate closes, the output goes to 0.

On **L**, the data is **Latched**. As long as the gate is open the data is copied to the output and when the gate closes the last value sent to the output is held.

On **F**, the data is **Flip-floped**. When the gate opens the value present on the input is sent to the output and held until the next gate.

B1



These are the main inputs and outputs of the **SW4-C** and make up the **switch** function of the device. The 3 CV inputs will be sent to the 3 CV outputs of the active section following the gate type setting. Only one set of 3 outputs will be active at any time.

B2



These inputs access essential settings in the device.
 The **R** input overrides the **Repeat** button in auto mode. With a value of 63 or less the function is off and with a value of 64 or more the function is turned on.
 The **C** input overrides the **Chance** button in auto mode. With a value of 63 or less the function is off and with a value of 64 or more the function is turned on.
 The **X** input will be used as random number instead of the one generated by the device.
 The **S** input will force the active section overriding the internal selection.
 The **Gate** input triggers all the changes in the device.
 The **Ptn (pattern)** input overrides the front pattern setting in auto mode. With a value of 63 or less **CHANCE** is active. With a value of 64 or more **REPEAT** is active.

B3



The **R** output mirrors the **R** knob in manual mode or the data present on the **R** input in auto mode.
 The **C** output mirrors the **C** knob in manual mode or the data present on the **C** input in auto mode.
 The random number created internally is sent to the **X** output.
 The active section number is sent to the **S** output.
 The gate generated by the **Gate** input or the front button activation is sent to the **Gate** output.
 The setting of the pattern is mirrored to the **Ptn** output.

B4



By default the random engine used for determining the active section in **CHANCE** mode is completely random (**Seed** at 0). So the random sequence will never be the same.
 This behaviour can be changed by setting the **Seed** to a position between 1 and 999. This will create a fixed random sequence that will “replay” the same way each time it is used.

B5

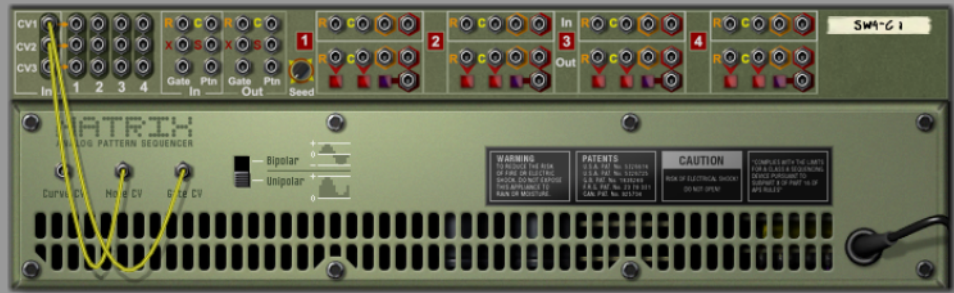


These are the section inputs and outputs.
 The **R** input overrides the front **R** knob in auto mode.
 The **C** input overrides the front **C** knob in auto mode.
 The **momentary** input overrides the front button in auto mode.
 The **toggle** input overrides the front button in auto mode.
 The **R** output mirrors the **R** knob in manual mode and in auto mode if no connection exists on the input. It mirrors the input in auto mode when a connection exists.
 The **C** output mirrors the **C** knob in manual mode and in auto mode if no connection exists on the input. It mirrors the input in auto mode when a connection exists.
 The **momentary** and **toggle** follow the same logic.
 The two red buttons switch the **R** and **C** outputs from unipolar to bipolar.
 The purple output mirrors the state of the section. 0 if inactive, 127 or 63 if active.
 Turning on the purple button will force all the section’s outputs to be affected by the gate type setting.



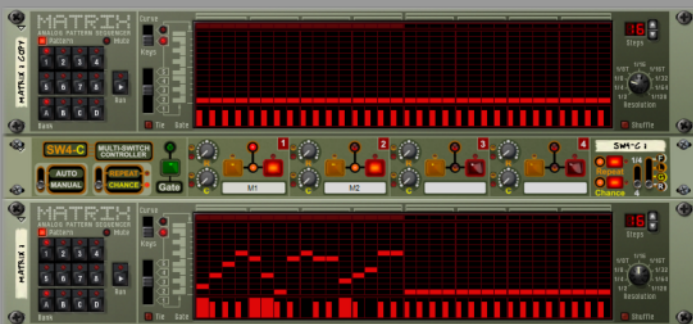
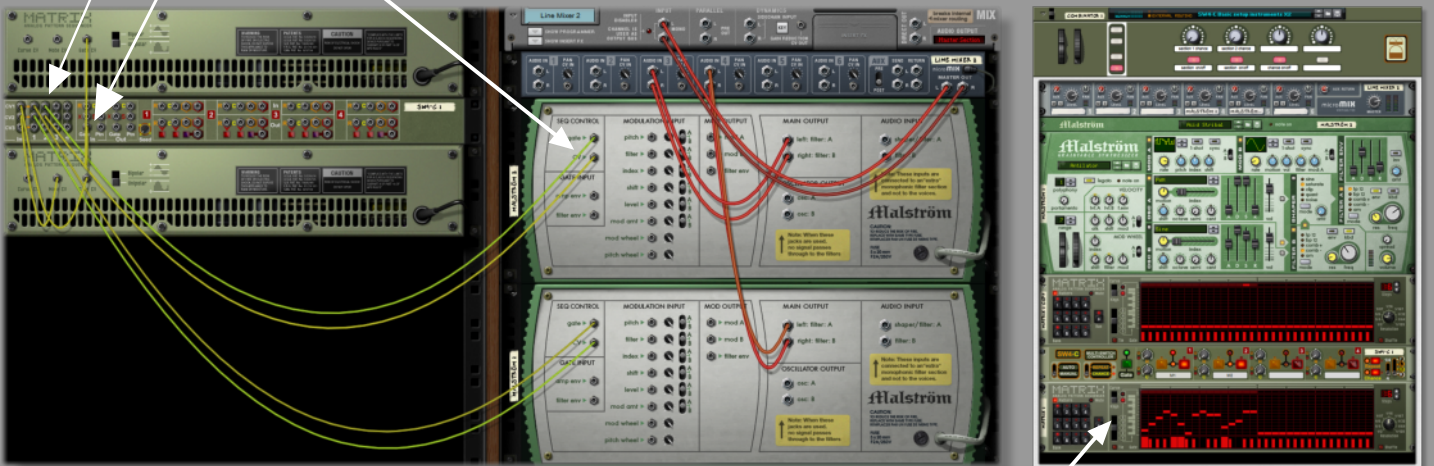
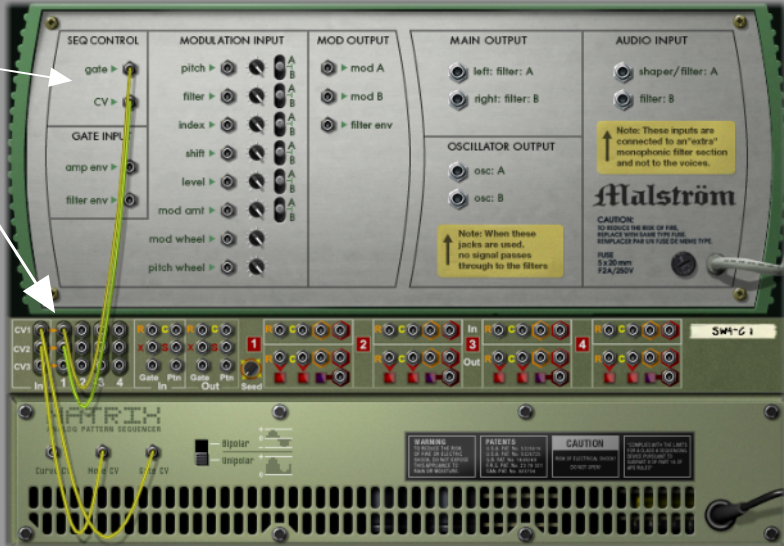
Setting up the **SW4-C** in switch mode to play 1 of 2 instruments

Here a Matrix is used to send gate and note CV outputs to the **SW4-C** main inputs



The first instrument is then connected to the corresponding outputs of section 1.

The second instrument is then connected to the corresponding outputs of section 2. A second Matrix is connected to the gate in of the **SW4-C** to trigger the instrument switching.



With section 1 and 2 enabled, and the device in **CHANCE** mode, each time the **SW4-C** receives a gate from the Matrix, it will randomly switch to one of the enabled sections and send the gate and notes from the main CV inputs to the corresponding instrument. With **Chance** activated the **C** Knobs can be used to change the chances each instruments has to be played. This set-up is part of the device's patches

Setting up the **SW4-C** for playing variations of a Redrum pattern

5



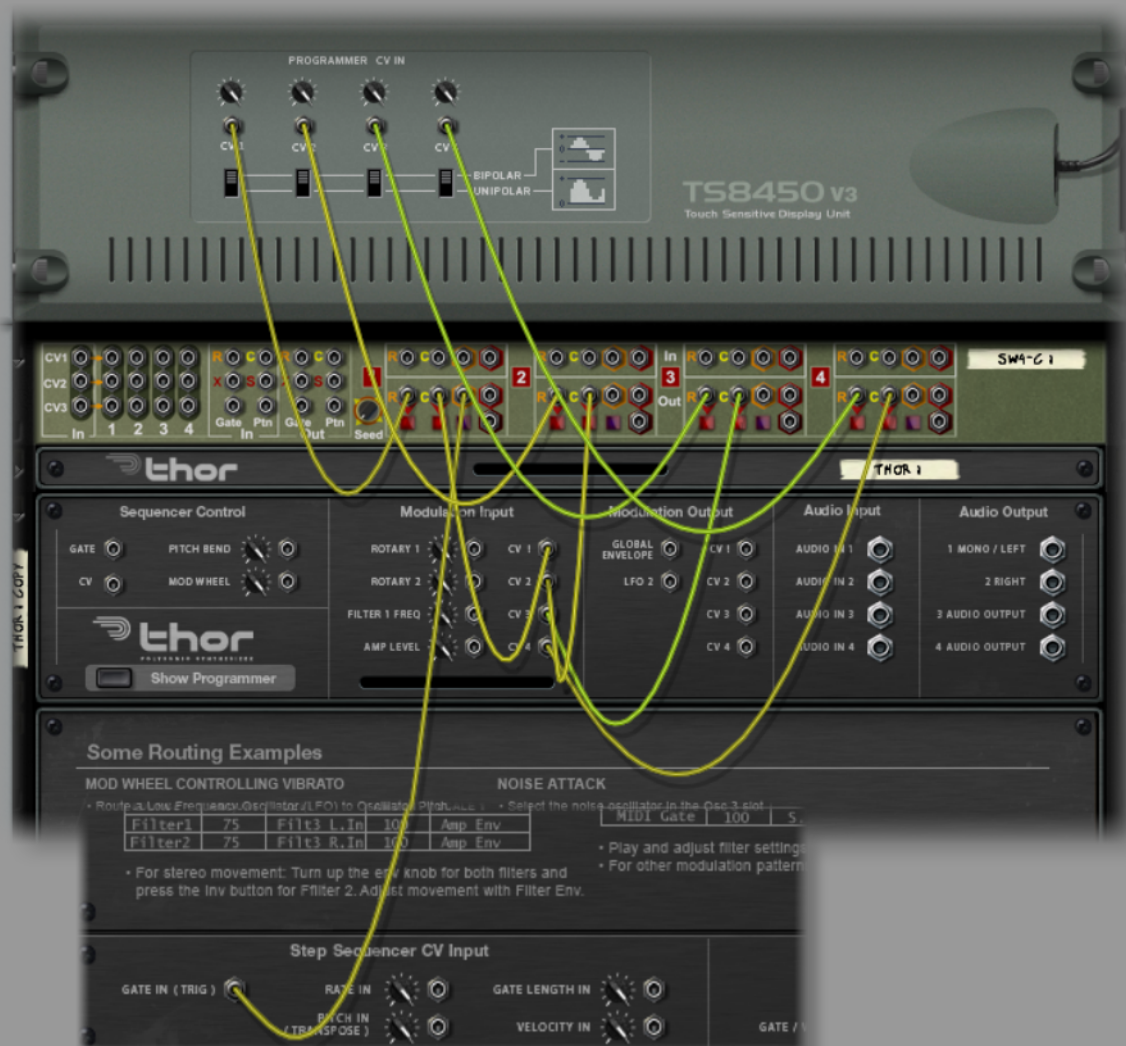
Here the Redrum is sending a Pattern from 2 outputs to 2 **SW4-C**. Each **SW4-C** then sends the received gates to one of the 4 connected Kong pad inputs. The Matrix sends a gate to the gate in of the first **SW4-C**. This gate is then relayed from the gate out of the same device to the gate in of the second **SW4-C**.



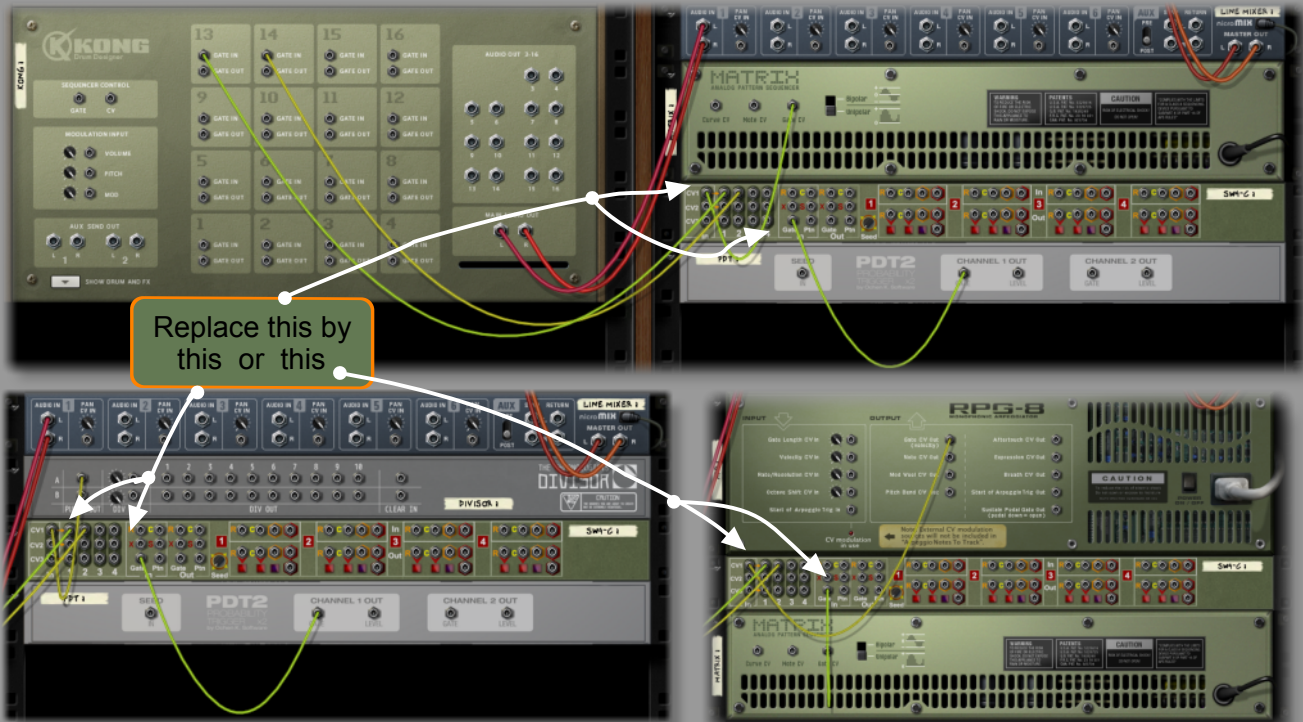
Now, activating different sections on the 2 **SW4-C** will determine where the gates coming from the Redrum will be sent. In **CHANCE** mode, the probability of each of the 8 Kong pads being played can be set by the 8 **C** knobs. In **REPEAT** mode, the times any given section will continue sending gates to the corresponding Kong pad before moving to the next enabled section in the sequence, can be adjusted with the 8 **R** knobs. The parameters of each **SW4-C** can be set separately offering a large number of possible combinations while retaining the feel of the original Redrum pattern. This set-up is part of the device's patches (SW4-C Drummer 2)



The **SW4-C** can provide 8 knobs that can be set to unipolar or bipolar, 4 momentary buttons and 4 toggle buttons. It can be used standalone or in combination with a combinator to add some extra controls directly to the devices or via the combinator's 4 CV inputs.

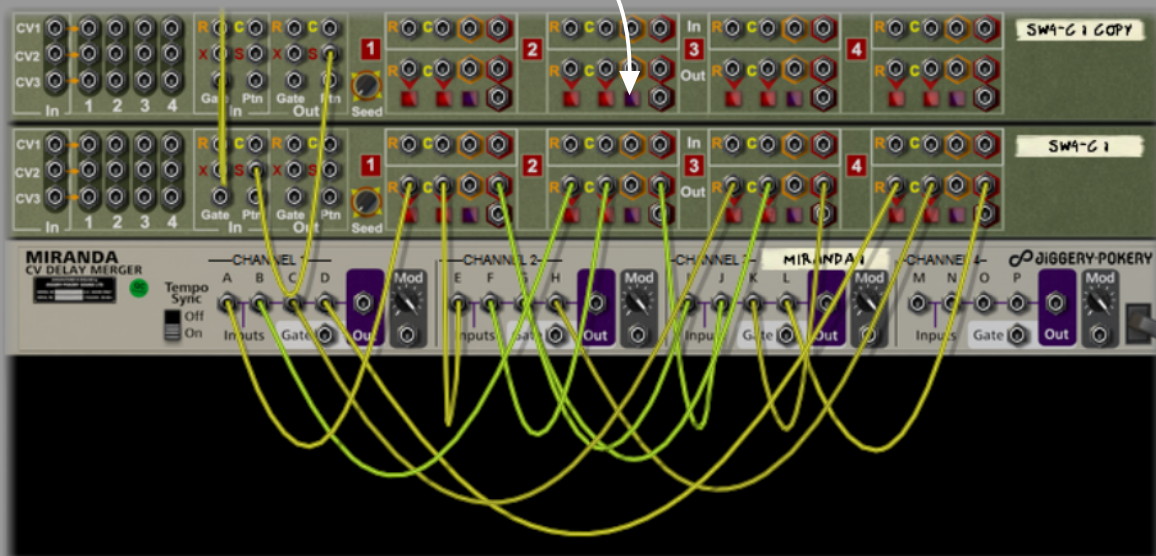


When using Reason core devices as a gate source and Rack Extensions connected to the gate in, as source for the switching, “double hits” can occur depending on the tempo and speed of each module. This can be used as a feature for some interesting beat making. When this is not desirable in a set-up the best way is to use either all Reason core devices, or all Rack Extensions. Also setting the **SW4-C**’s gate mode to **F** (flip-flop) will give the expected result.



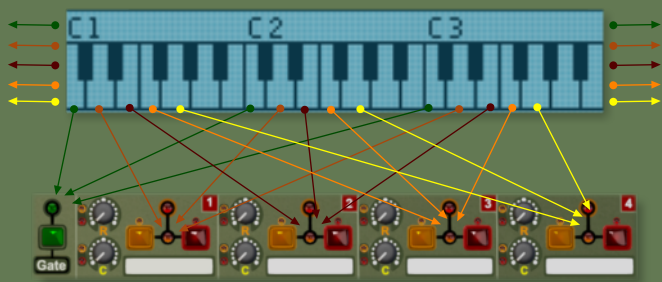
If the **SW4-C** is used to switch from different values coming from the same device only the **R** inputs and outputs will be “available” in **CHANCE** mode, and only the **C** inputs and outputs will be “available” in **REPEAT** mode. If the intention is to use both modes to switch from a hole set of values it is best to set the values on one **SW4-C** and use another for selecting the output section using the **S** output like in this set-up.

This set-up is part of the device’s patches (SW4-C All data out)



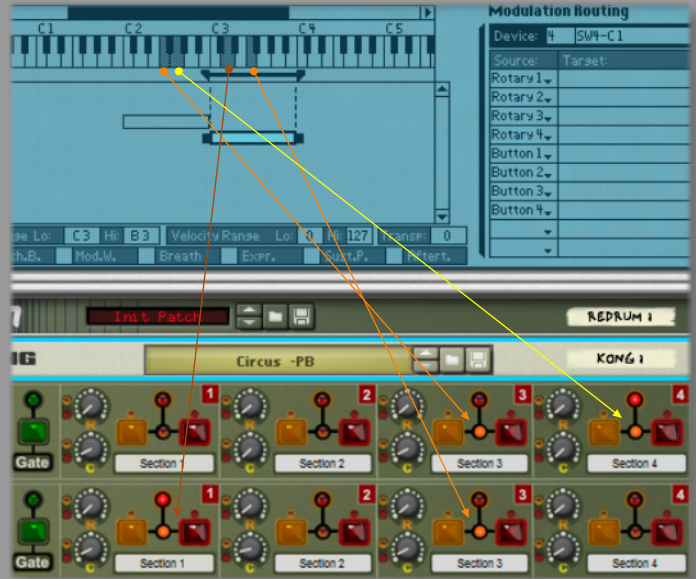


Playing the **SW4-C** with the keyboard



- All Cs activate the gate
- All Ds activate section 1
- All Es activate section 2
- All Fs activate section 3
- All Gs activate section 4

So multiple devices can be “played” with one keyboard by selecting the correct range.



Original concept and GUI by :



Awesome coding and feature enhancements by :

