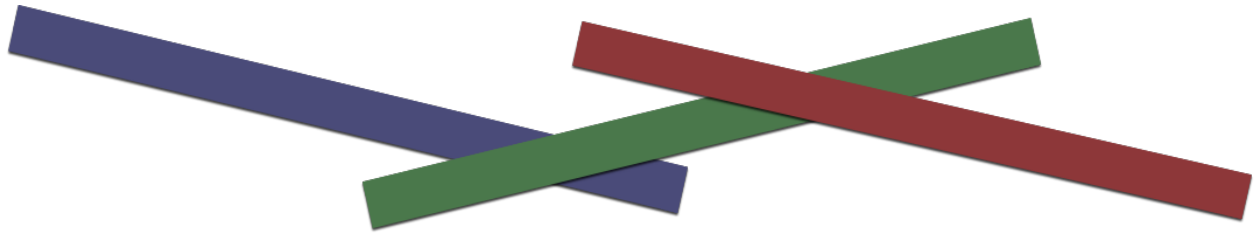


# FRONT-8



## Operation Manual

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# Introduction

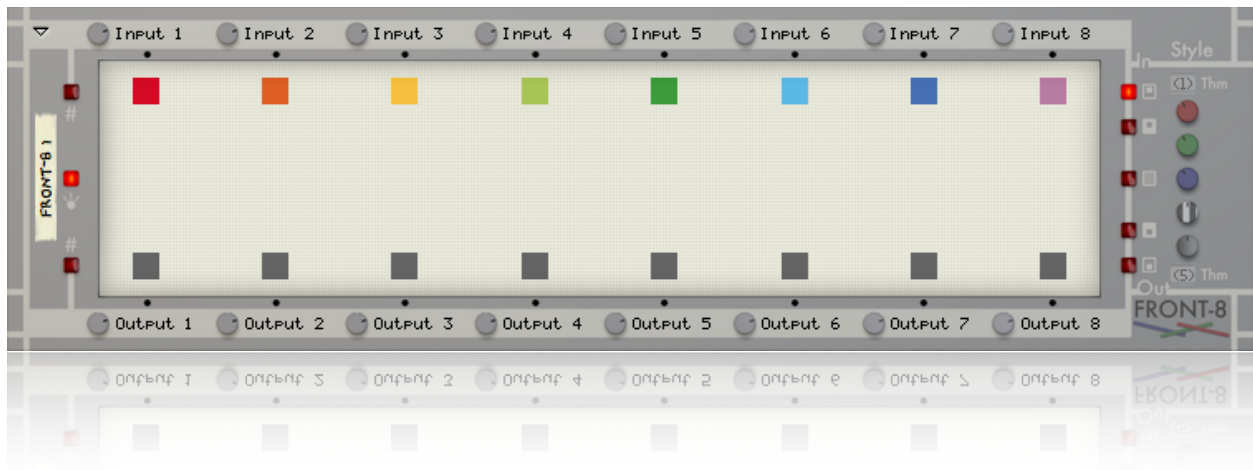
FRONT-8 Graphical CV Router allows you to route CV signals on the front side of the Reason rack using an intuitive interface. CV from up to eight sources can be sent, at varying amounts, to up to eight destinations. Furthermore, you can record and play back all of your routing adjustments. You can also customize the appearance of the device.

This document presents a feature-by-feature overview of FRONT-8.

Questions, comments, and other feedback are welcome. Please send them to:  
[REsupport@pepinhazan.com](mailto:REsupport@pepinhazan.com)

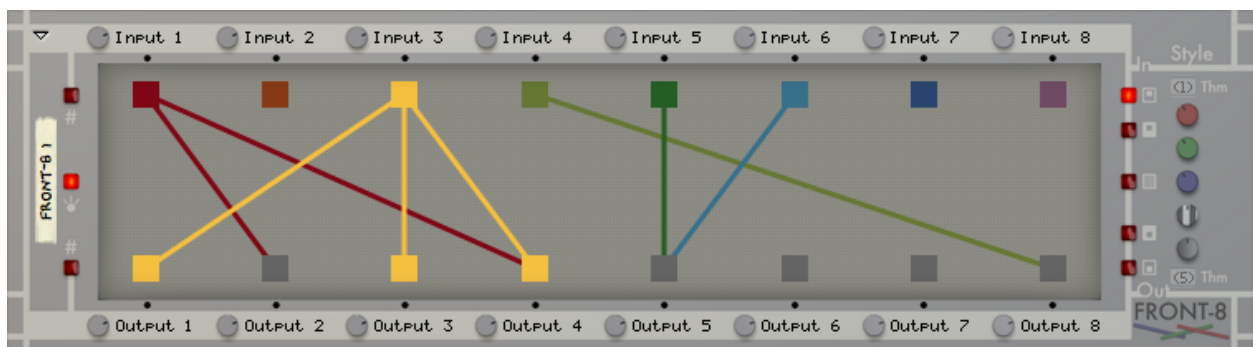
Thank you for your interest in this device!  
Pepin

# Front



## Using the Display

Click an input to select it. The selected input is signified by a dark overlay covering the other inputs. To deselect the selected input, click the background of the display.



**Input 3 is selected.**

Dragging from an input creates a cable that can be connected to any output.

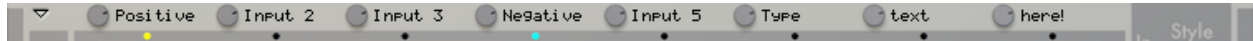
*When no input is selected:*

- Dragging from an output creates a cable that can be connected to any input. Connecting an output to an input automatically selects that input.

*When an input is selected:*

- Dragging from an output connected to the selected input disconnects the output. The cable can either be removed or routed to a different output.
- Dragging from an output not connected to the selected input creates a cable that can be connected to any input. Connecting an output to an input automatically selects that input.

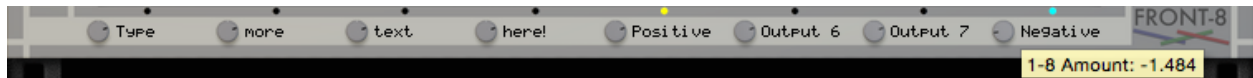
## Inputs Section



For each CV input, the inputs section contains:

- *Global Input Amount Knob* - This knob affects how much of the input is sent to all outputs as well as the polarity of the input. It scales the input by a value between -2 and 2.
- *Label* - Double click the label to change its text. Each label is mirrored on the back of the device.
- *Lamp* - An input's lamp is yellow when the input's value is positive and blue when the input's value is negative. The lamp reaches maximum brightness at values  $\geq 1$  or  $\leq -1$ .

## Outputs Section



**Input 1 will be scaled by -1.484 when it reaches Output 8.**

For each CV output, the outputs sections contains:

- *Per-Output Input Amount Knob* - This knob affects how much of the currently selected input—after being scaled by its global amount knob—is sent to the output. It also affects the signal's polarity. When no input is selected, this knob is non-functional. This knob's tooltip indicates its current function.
- *Label* - Double click the label to change its text. Each label is mirrored on the back of the device.
- *Lamp* - An output's lamp is yellow when the output's value is positive and blue when the output's value is negative. The lamp reaches maximum brightness at values  $\geq 1$  or  $\leq -1$ . If the CV output on the back of the device is disconnected, the lamp remains unlit regardless of the output's current value.

## Info Section

The buttons along the left side of the display perform the following functions:



*Show Inputs Info* - Switching on this button enables the display's upper info bar (see next section for details).



*Enable Lamps* - Switching off this button disables the input and output lamps.

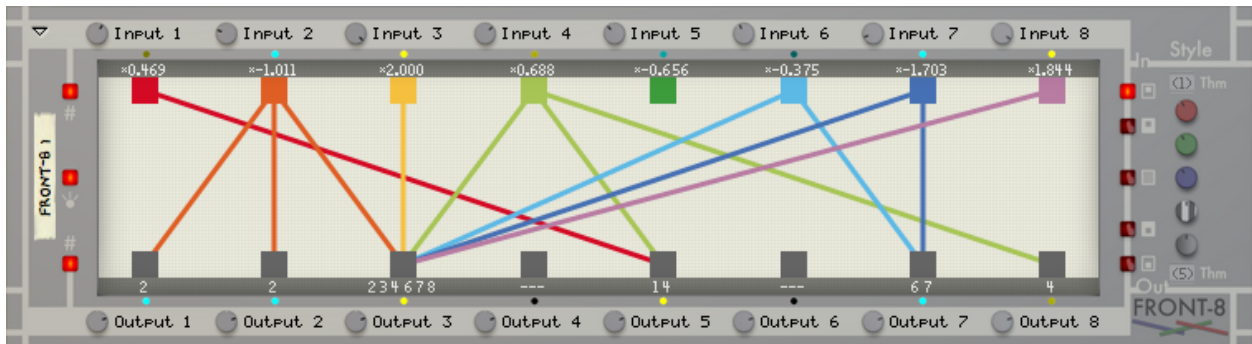


*Show Outputs Info* - Switching on this button enables the display's lower info bar (see next section for details).

## Info Bars

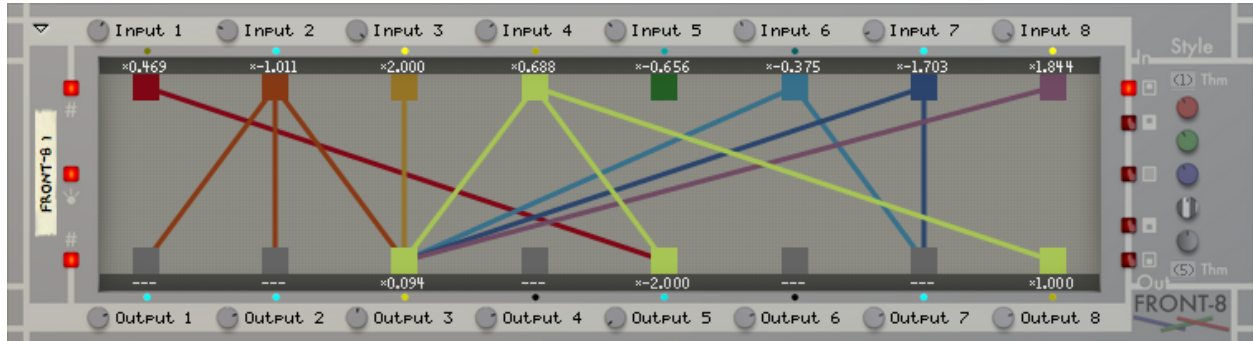
The info bars contain the following information:

*When no input is selected:*



- The upper info bar shows the values of the global input amount knobs.
- The lower info bar shows which inputs are connected to each output. "---" is displayed for outputs not connected to any inputs.

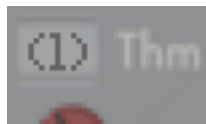
When an input is selected:



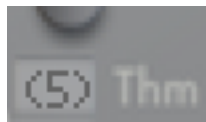
- The upper info bar still shows the values of the global input amount knobs.
- For outputs connected to the selected input, the lower info bar now shows the values of their per-output input amount knobs for the selected input. "---" is displayed for outputs not connected to the selected input.

## Style Section

The style section allows you to customize the appearance of FRONT-8's display. It contains the following controls:



*Inputs Theme Menu* - Click the menu to select a preset theme for the inputs. Choose theme (5) Custom to customize the inputs' appearance yourself using the other controls in the Style section.



*Outputs Theme Menu* - Click the menu to select a preset theme for the outputs. Choose theme (5) Custom to customize the outputs' appearance yourself using the other controls in the Style section.



*Color Target Buttons* - These radio buttons determine which aspect of the display will be changed according to the Red, Green, Blue, Stripe, and Gradient knobs. Separate knob settings are saved for each color target. From top to bottom, the color targets are:

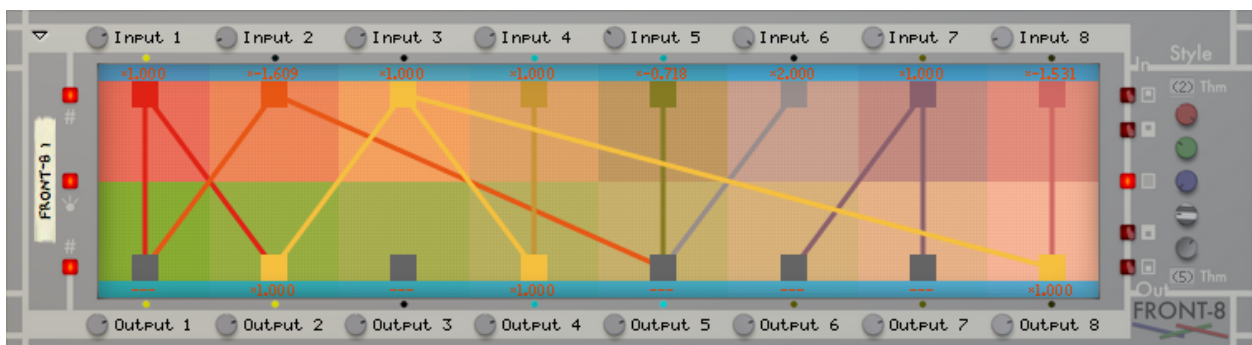
- *Input Sockets* - If inputs theme (5) Custom is selected, the style knobs will affect the input socket colors.
- *Inputs Background* - If inputs theme (5) Custom is selected, the style knobs will affect the input background colors.
- *Focus Backdrop and Info Bars* - The style knobs will affect the colors of both the overlay behind the selected input and the info bars.
- *Outputs Background* - If outputs theme (5) Custom is selected, the style knobs will affect the output background colors.
- *Output Sockets* - If outputs theme (5) Custom is selected, the style knobs will affect the output socket colors.



*Red, Green, Blue Knobs* - These affect the colors of the currently selected color target. When the current color target affects the inputs or outputs, the effects of changes to these knobs will only be visible if theme (5) Custom is selected. When the current color target is *Focus Backdrop and Info Bars*, these determine the color of the focus backdrop that appears behind the selected input.

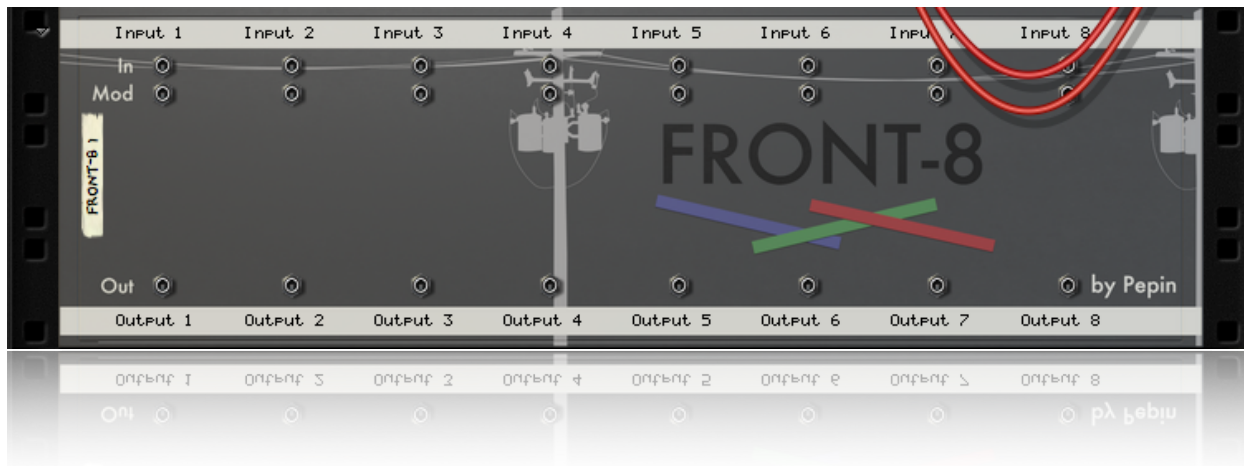
*Stripe Knob* - When the current color target affects the inputs or outputs, the stripe knob lightens or darkens the even numbered GUI elements if turned right or left, respectively. If the Gradient Knob is set to a non-zero value, the stripe knob instead determines the direction of the gradient—negative settings reverse the gradient. When the current color target is *Focus Backdrop and Info Bars*, turning the stripe knob to the right changes the info bar colors to various grayscale settings ranging from black text on a white background to white text on a black background. Turning the stripe knob to the left sets the info bar colors based on both the focus backdrop color set with the RGB knobs and the opacity of the info bars. When the info bars are mostly transparent, both their background and text colors are set to the color compliment of the focus backdrop's color. When the info bars are mostly opaque, their background color is again set to the color compliment of the focus backdrop, but their text color is instead set to the same color as the focus backdrop.

*Gradient Knob* - When the current color target affects the inputs or outputs, turning the gradient knob right creates a gradient across the GUI elements that starts at the color set with the RGB knobs and gets lighter; turning the gradient knob left creates a gradient that starts at a color darker than the color set with the RGB knobs and ends at the color set with them. Setting the stripe knob to a negative value reverses the direction of the gradient. When the current color target is *Focus Backdrop and Info Bars*, the gradient knob instead affects the opacity of the info bars.



**FRONT-8 with a customized appearance**

## Back



### Inputs

Each input on FRONT-8's display has a corresponding CV input socket on the back of FRONT-8.

Each input also has a Mod input socket, where you can optionally attach a secondary CV source by which the main input will be multiplied before reaching the display.

Each input socket also has a corresponding label, which is mirrored on the front of the device.

### Outputs

Each output on FRONT-8's display has a corresponding CV output socket on the back of FRONT-8.

If all CV inputs are connected, and all inputs are routed to output N on the display, output N is calculated as follows:

$$\begin{aligned} \text{Out CV N} = & (\text{In CV 1}) * (\text{Mod CV 1}) * (\text{Global Input 1 Amount}) * (\text{Input 1 to Output N Amount}) \\ & + (\text{In CV 2}) * (\text{Mod CV 2}) * (\text{Global Input 2 Amount}) * (\text{Input 2 to Output N Amount}) \\ & + (\text{In CV 3}) * (\text{Mod CV 3}) * (\text{Global Input 3 Amount}) * (\text{Input 3 to Output N Amount}) \\ & + (\text{In CV 4}) * (\text{Mod CV 4}) * (\text{Global Input 4 Amount}) * (\text{Input 4 to Output N Amount}) \\ & + (\text{In CV 5}) * (\text{Mod CV 5}) * (\text{Global Input 5 Amount}) * (\text{Input 5 to Output N Amount}) \\ & + (\text{In CV 6}) * (\text{Mod CV 6}) * (\text{Global Input 6 Amount}) * (\text{Input 6 to Output N Amount}) \\ & + (\text{In CV 7}) * (\text{Mod CV 7}) * (\text{Global Input 7 Amount}) * (\text{Input 7 to Output N Amount}) \\ & + (\text{In CV 8}) * (\text{Mod CV 8}) * (\text{Global Input 8 Amount}) * (\text{Input 8 to Output N Amount}) \end{aligned}$$

Each output socket also has a corresponding label, which is mirrored on the front of the device.

# MIDI / Remote Implementation

Parameter	MIDI CC	Remote Identifier
Inputs Red Amount	4	Inputs Red Amount
Inputs Green Amount	5	Inputs Green Amount
Inputs Blue Amount	7	Inputs Blue Amount
Inputs Stripe Amount	8	Inputs Stripe Amount
Inputs Gradient Amount	10	Inputs Gradient Amount
Inputs Background Red Amount	12	Inputs Background Red Amount
Inputs Background Green Amount	13	Inputs Background Green Amount
Inputs Background Blue Amount	14	Inputs Background Blue Amount
Inputs Background Stripe Amount	15	Inputs Background Stripe Amount
Inputs Background Gradient Amount	16	Inputs Background Gradient Amount
Focus Backdrop Red Amount	17	Focus Backdrop Red Amount
Focus Backdrop Green Amount	18	Focus Backdrop Green Amount
Focus Backdrop Blue Amount	19	Focus Backdrop Blue Amount
Info Bars Text Color	20	Info Bars Text Color
Info Bars Background Opacity	21	Info Bars Background Opacity
Outputs Background Red Amount	22	Outputs Background Red Amount
Outputs Background Green Amount	23	Outputs Background Green Amount
Outputs Background Blue Amount	24	Outputs Background Blue Amount
Outputs Background Stripe Amount	25	Outputs Background Stripe Amount
Outputs Background Gradient Amount	26	Outputs Background Gradient Amount
Outputs Red Amount	27	Outputs Red Amount
Outputs Green Amount	28	Outputs Green Amount
Outputs Blue Amount	29	Outputs Blue Amount
Outputs Stripe Amount	30	Outputs Stripe Amount
Outputs Gradient Amount	31	Outputs Gradient Amount
1-1 Connection	33	Connection 1-1
1-2 Connection	34	Connection 1-2
1-3 Connection	35	Connection 1-3
1-4 Connection	36	Connection 1-4
1-5 Connection	37	Connection 1-5
1-6 Connection	39	Connection 1-6
1-7 Connection	40	Connection 1-7
1-8 Connection	41	Connection 1-8
2-1 Connection	42	Connection 2-1
2-2 Connection	43	Connection 2-2
2-3 Connection	44	Connection 2-3
2-4 Connection	45	Connection 2-4
2-5 Connection	46	Connection 2-5
2-6 Connection	47	Connection 2-6
2-7 Connection	48	Connection 2-7
2-8 Connection	49	Connection 2-8
3-1 Connection	50	Connection 3-1
3-2 Connection	51	Connection 3-2
3-3 Connection	52	Connection 3-3
3-4 Connection	53	Connection 3-4
3-5 Connection	54	Connection 3-5
3-6 Connection	55	Connection 3-6
3-7 Connection	56	Connection 3-7
3-8 Connection	57	Connection 3-8
4-1 Connection	58	Connection 4-1
4-2 Connection	59	Connection 4-2
4-3 Connection	60	Connection 4-3
4-4 Connection	61	Connection 4-4
4-5 Connection	62	Connection 4-5
4-6 Connection	63	Connection 4-6
4-7 Connection	65	Connection 4-7
4-8 Connection	66	Connection 4-8
5-1 Connection	67	Connection 5-1
5-2 Connection	68	Connection 5-2
5-3 Connection	69	Connection 5-3
5-4 Connection	70	Connection 5-4
5-5 Connection	71	Connection 5-5
5-6 Connection	72	Connection 5-6
5-7 Connection	73	Connection 5-7
5-8 Connection	74	Connection 5-8
6-1 Connection	75	Connection 6-1

6-2 Connection	76	Connection 6-2
6-3 Connection	77	Connection 6-3
6-4 Connection	78	Connection 6-4
6-5 Connection	79	Connection 6-5
6-6 Connection	80	Connection 6-6
6-7 Connection	81	Connection 6-7
6-8 Connection	82	Connection 6-8
7-1 Connection	83	Connection 7-1
7-2 Connection	84	Connection 7-2
7-3 Connection	85	Connection 7-3
7-4 Connection	86	Connection 7-4
7-5 Connection	87	Connection 7-5
7-6 Connection	88	Connection 7-6
7-7 Connection	89	Connection 7-7
7-8 Connection	90	Connection 7-8
8-1 Connection	191	Connection 8-1
8-2 Connection	192	Connection 8-2
8-3 Connection	193	Connection 8-3
8-4 Connection	194	Connection 8-4
8-5 Connection	195	Connection 8-5
8-6 Connection	102	Connection 8-6
8-7 Connection	103	Connection 8-7
8-8 Connection	104	Connection 8-8
Global Input 1 Amount	105	Global Input 1 Amount
Global Input 2 Amount	106	Global Input 2 Amount
Global Input 3 Amount	107	Global Input 3 Amount
Global Input 4 Amount	108	Global Input 4 Amount
Global Input 5 Amount	109	Global Input 5 Amount
Global Input 6 Amount	110	Global Input 6 Amount
Global Input 7 Amount	111	Global Input 7 Amount
Global Input 8 Amount	112	Global Input 8 Amount
1-1 Amount	-	Amount 1-1
1-2 Amount	-	Amount 1-2
1-3 Amount	-	Amount 1-3
1-4 Amount	-	Amount 1-4
1-5 Amount	-	Amount 1-5
1-6 Amount	-	Amount 1-6
1-7 Amount	-	Amount 1-7
1-8 Amount	-	Amount 1-8
2-1 Amount	-	Amount 2-1
2-2 Amount	-	Amount 2-2
2-3 Amount	-	Amount 2-3
2-4 Amount	-	Amount 2-4
2-5 Amount	-	Amount 2-5
2-6 Amount	-	Amount 2-6
2-7 Amount	-	Amount 2-7
2-8 Amount	-	Amount 2-8
3-1 Amount	-	Amount 3-1
3-2 Amount	-	Amount 3-2
3-3 Amount	-	Amount 3-3
3-4 Amount	-	Amount 3-4
3-5 Amount	-	Amount 3-5
3-6 Amount	-	Amount 3-6
3-7 Amount	-	Amount 3-7
3-8 Amount	-	Amount 3-8
4-1 Amount	-	Amount 4-1
4-2 Amount	-	Amount 4-2
4-3 Amount	-	Amount 4-3
4-4 Amount	-	Amount 4-4
4-5 Amount	-	Amount 4-5
4-6 Amount	-	Amount 4-6
4-7 Amount	-	Amount 4-7
4-8 Amount	-	Amount 4-8
5-1 Amount	-	Amount 5-1
5-2 Amount	-	Amount 5-2
5-3 Amount	-	Amount 5-3
5-4 Amount	-	Amount 5-4
5-5 Amount	-	Amount 5-5
5-6 Amount	-	Amount 5-6
5-7 Amount	-	Amount 5-7
5-8 Amount	-	Amount 5-8
6-1 Amount	-	Amount 6-1

6-2 Amount	-	Amount 6-2
6-3 Amount	-	Amount 6-3
6-4 Amount	-	Amount 6-4
6-5 Amount	-	Amount 6-5
6-6 Amount	-	Amount 6-6
6-7 Amount	-	Amount 6-7
6-8 Amount	-	Amount 6-8
7-1 Amount	-	Amount 7-1
7-2 Amount	-	Amount 7-2
7-3 Amount	-	Amount 7-3
7-4 Amount	-	Amount 7-4
7-5 Amount	-	Amount 7-5
7-6 Amount	-	Amount 7-6
7-7 Amount	-	Amount 7-7
7-8 Amount	-	Amount 7-8
8-1 Amount	-	Amount 8-1
8-2 Amount	-	Amount 8-2
8-3 Amount	-	Amount 8-3
8-4 Amount	-	Amount 8-4
8-5 Amount	-	Amount 8-5
8-6 Amount	-	Amount 8-6
8-7 Amount	-	Amount 8-7
8-8 Amount	-	Amount 8-8
Color Target	-	Color Target
Inputs Theme	-	Inputs Theme
Outputs Theme	-	Outputs Theme
Show Inputs Info	-	Show Inputs Info
Show Outputs Info	-	Show Outputs Info
Enable Lamps	-	Enable Lamps