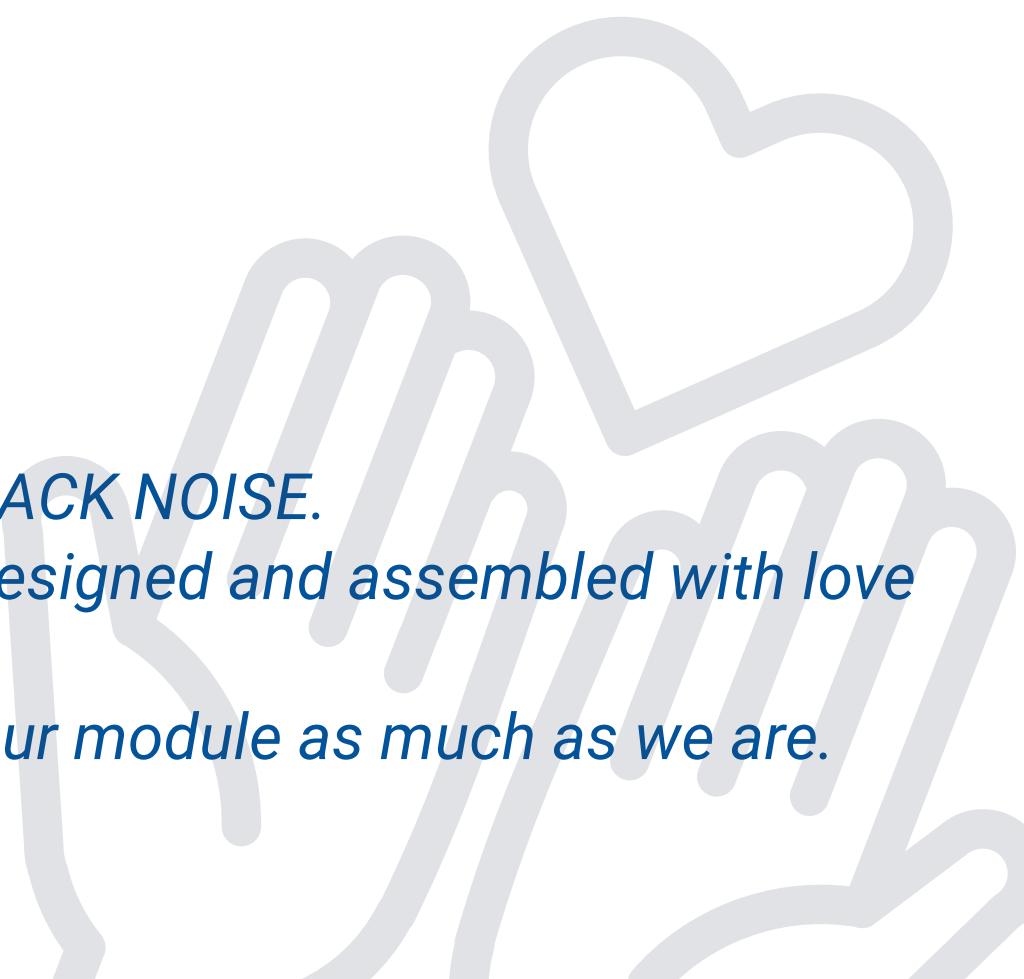


S A L L E N  
K E Y

USER MANUAL

# **THANKS YOU**

*Thanks for supporting BLACK NOISE.  
Your module have been designed and assembled with love  
and care in France.  
We hope you will enjoy your module as much as we are.*



# INSTALLATION & POWER SAFETY

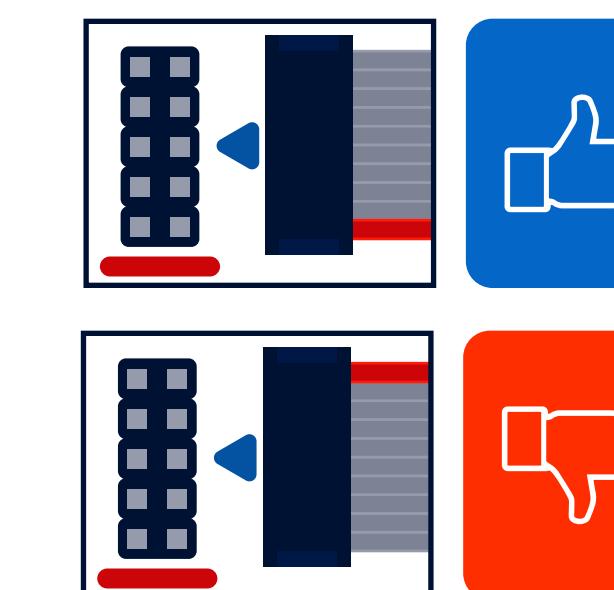
S ALLEN  
KEY

1

Disconnect you rack power from the main.

2

Align the red line from the power ribbon cable with the line draw next to the power connector on the module side.



3

Check again the polarity of the ribbon cable.

4

Check the polarity one last time.

5

Turn Q knob up to 11.

6

Connect you rack power from the main.

7

Power you rack.

8

If the LED above the Q knob light up you can pass on next step, else please contact us.

9

You can screw you module on your rack.

## DISCLAIMER

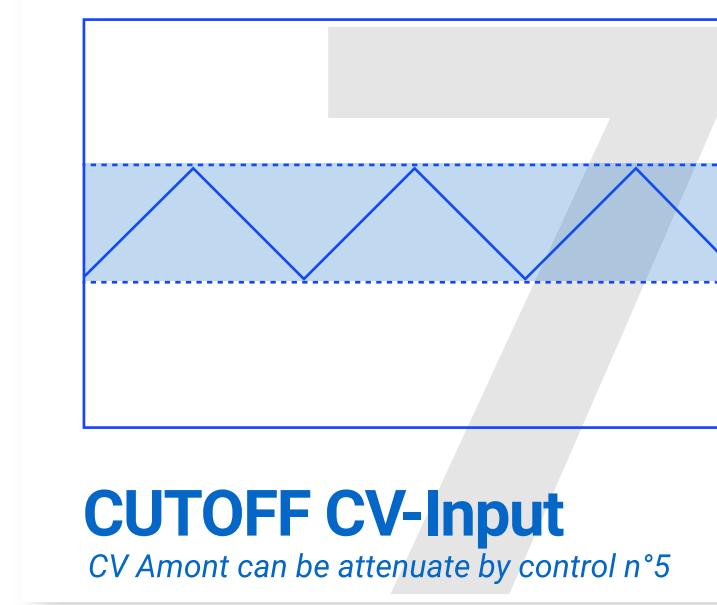
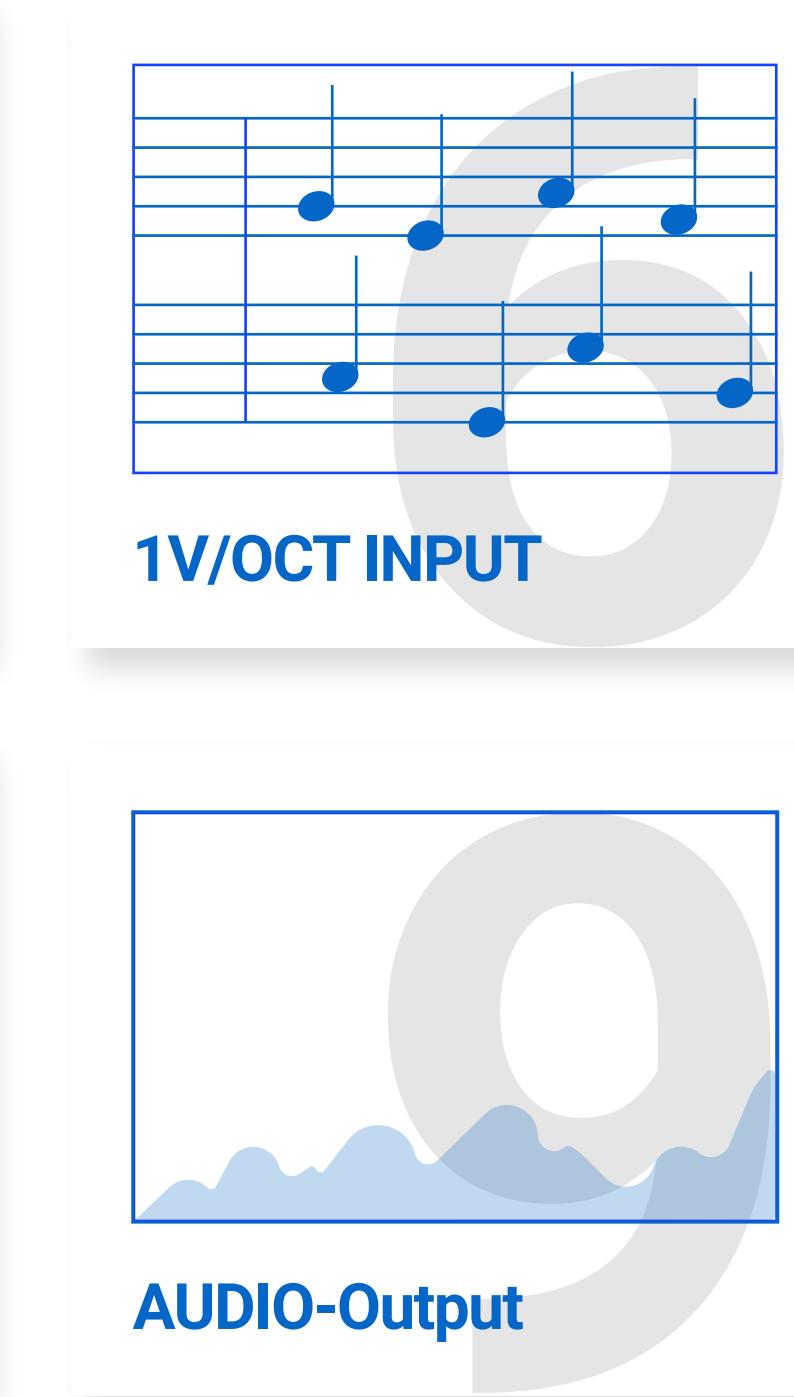
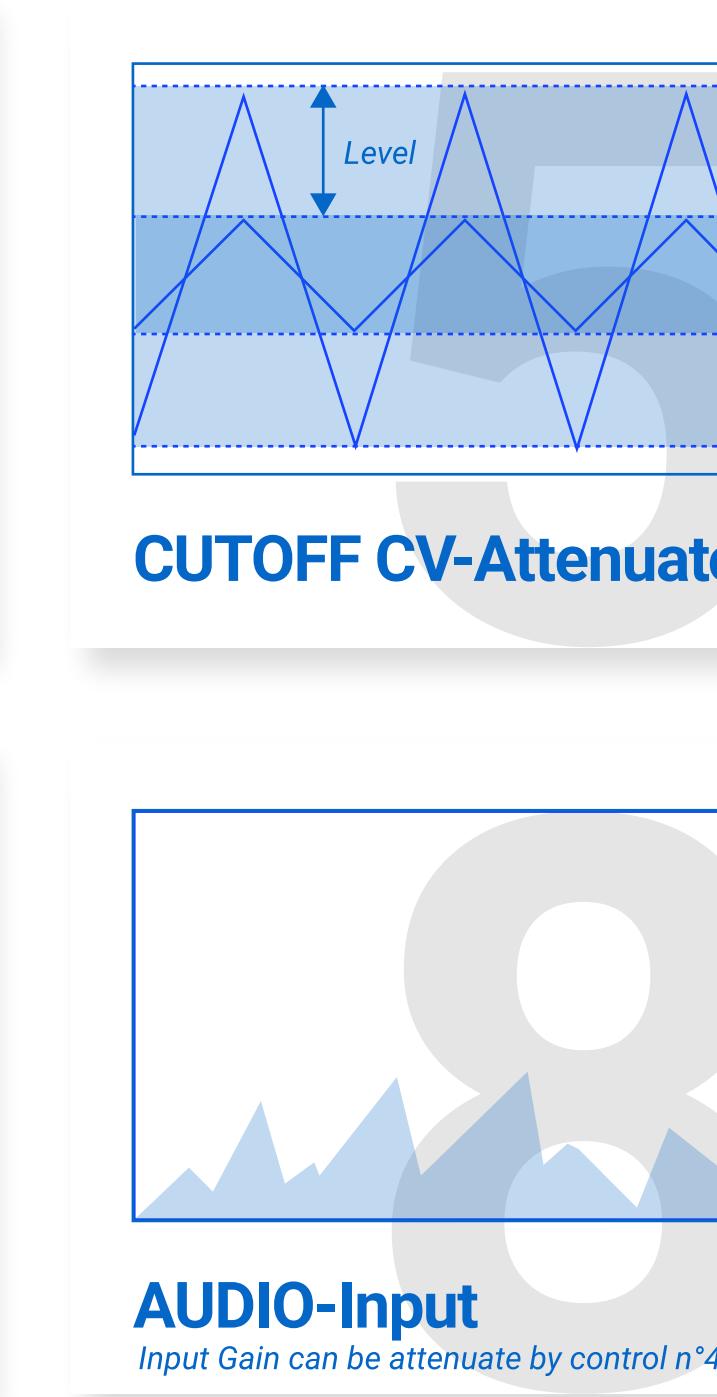
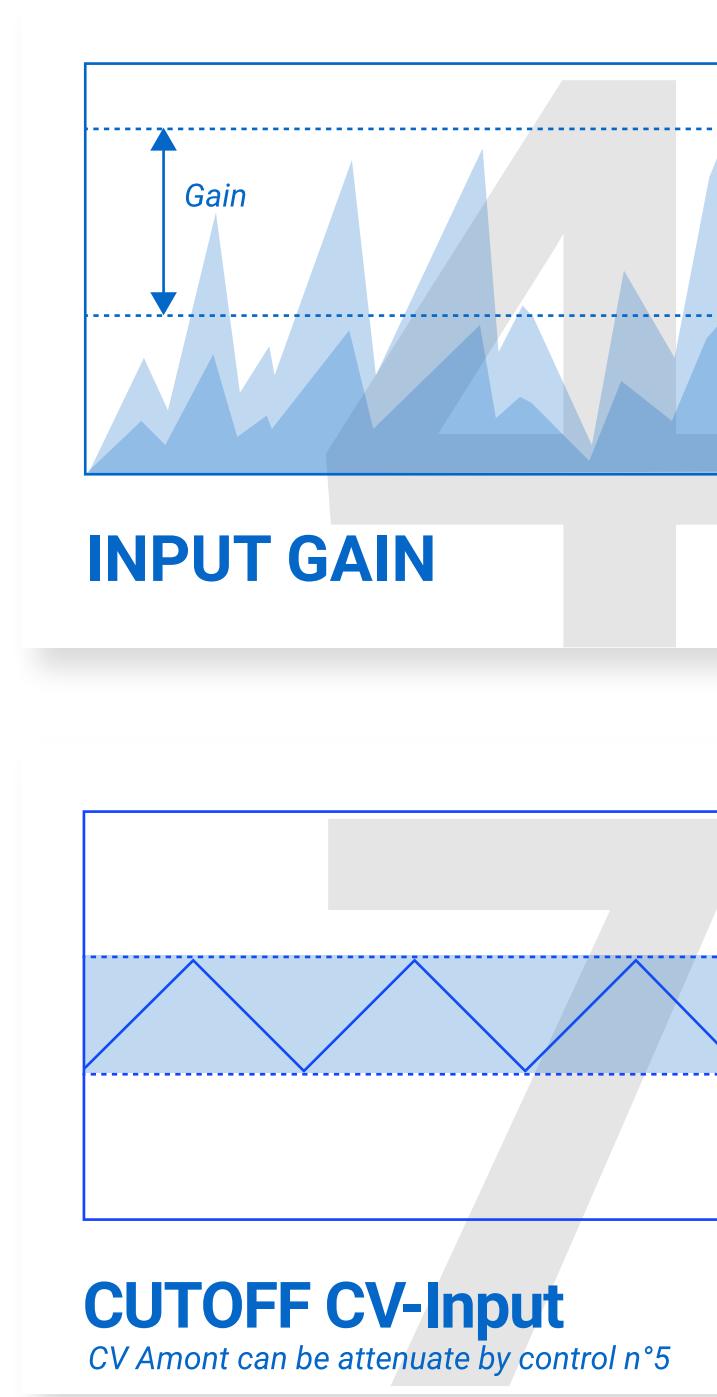
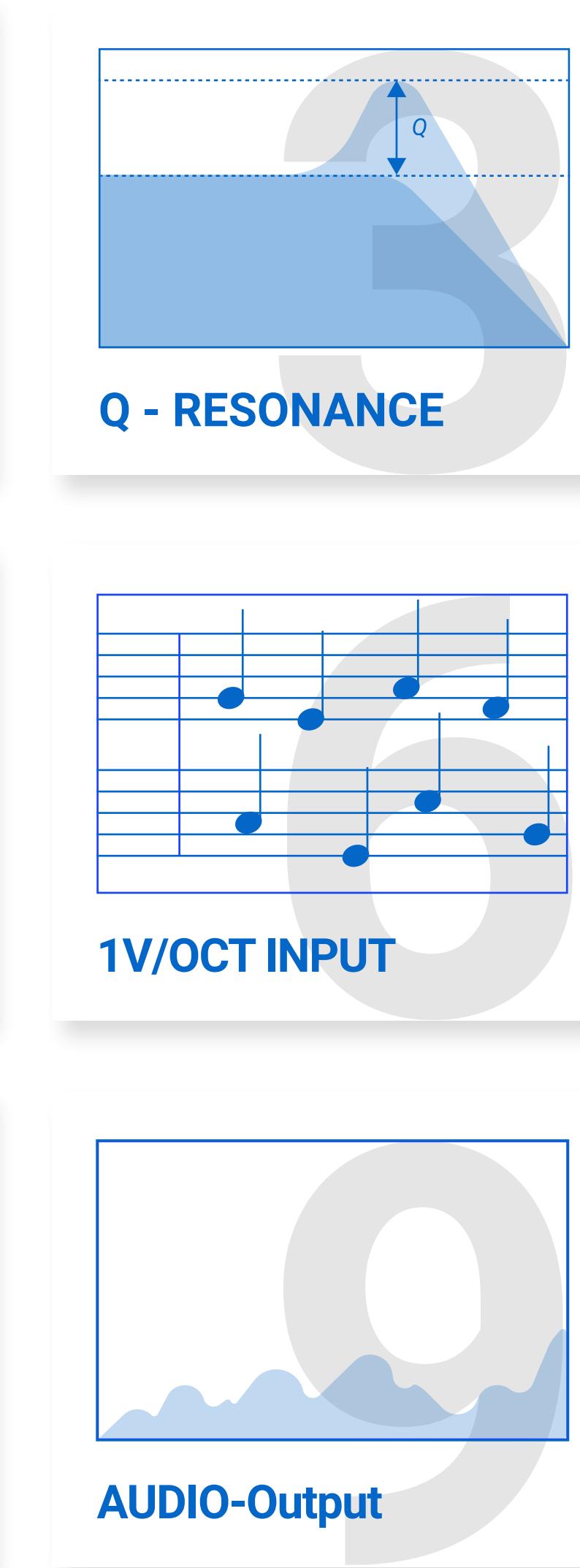
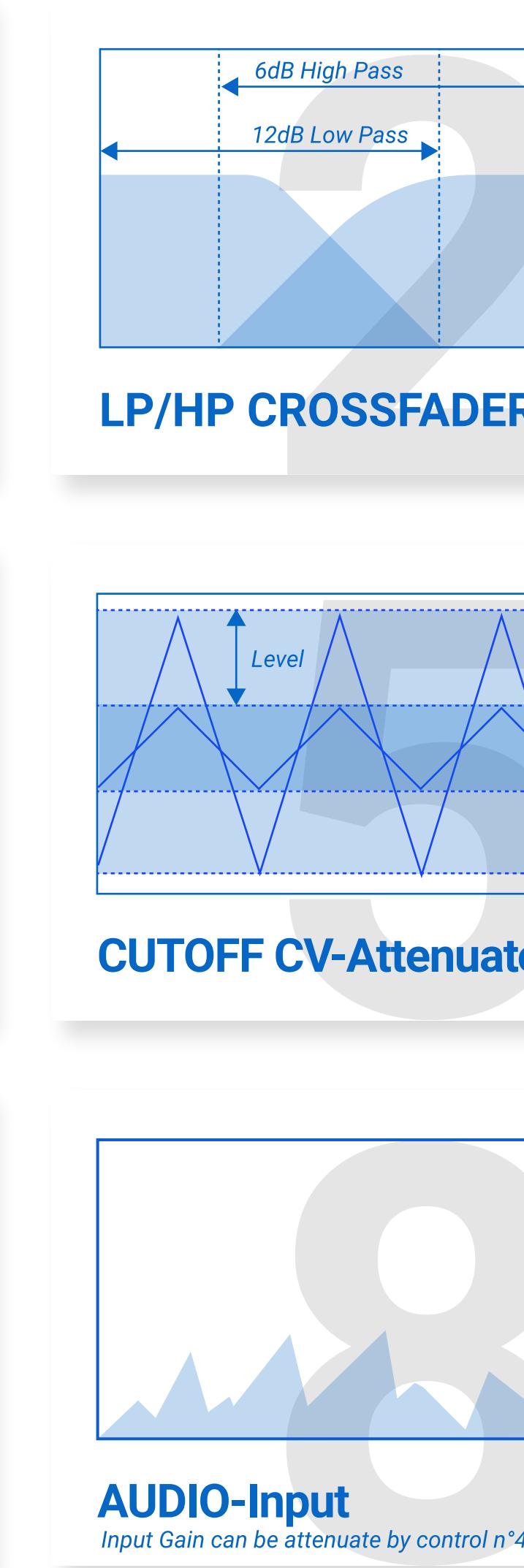
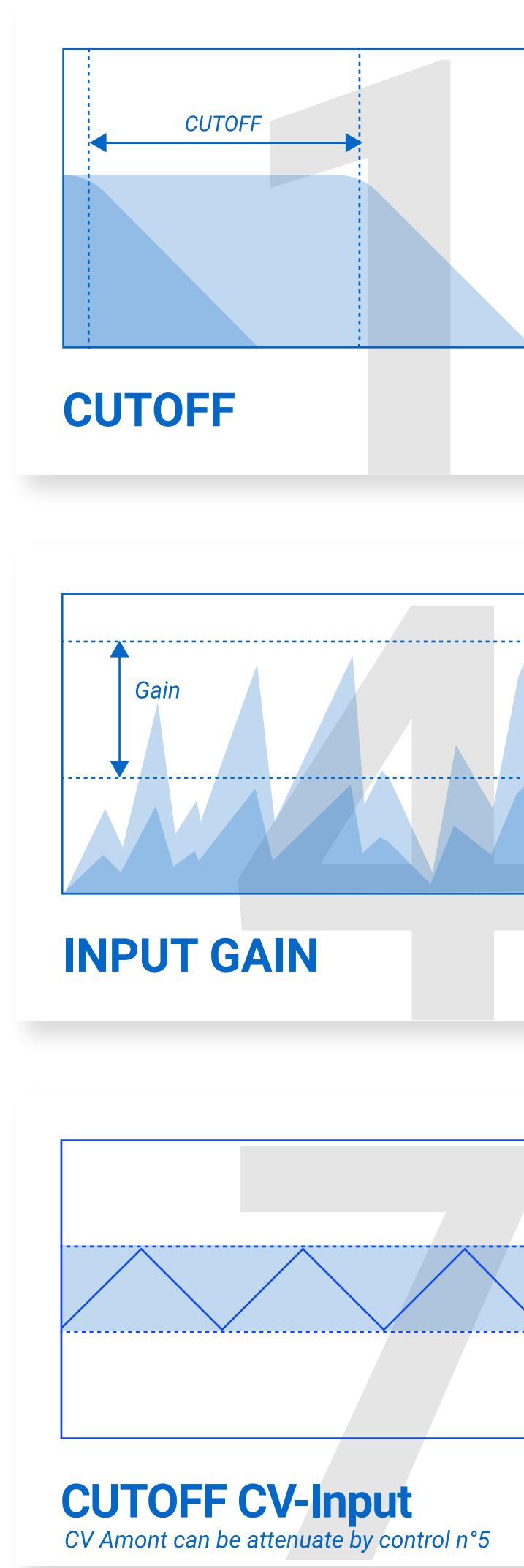
All our modules are secured against reversed power connection, however plugging you module backward may damage you power supply or other modules installed in your rack.

Backward connection are not covered by our warranty.

# OVERVIEW

## FRONT PLATE

SALLEN  
KEY



# OVERVIEW



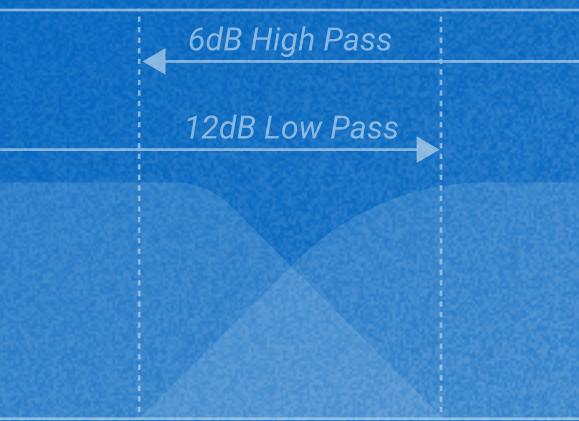
S  
A  
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L  
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K  
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Y

## FREQUENCY CONTROL

**Sallen Key** reproduce the architecture of the original MS20 filter.

It's composed of a  $-12\text{dB/oct}$  low pass and a  $+6\text{dB/oct}$  high pass.  
You can select the filter type with the dedicate knob(2).  
with the knob(2) on left position the input signal will be send to the low pass filter, and on the right position the signal will go on the high pass.

You can control the frequency cutoff with the knob(1) on top of the module.  
Frequency cutoff can be modulate using the "CV" input(9) and the dedicate attenuator(5).



### GENERAL SPECIFICATIONS

PANEL WIDTH : 8HP

MODULE DEPTH : 20mm

POWER CONSUMPTION :

+12V : 18mA

-12V : 18mA

+5V : 0mA

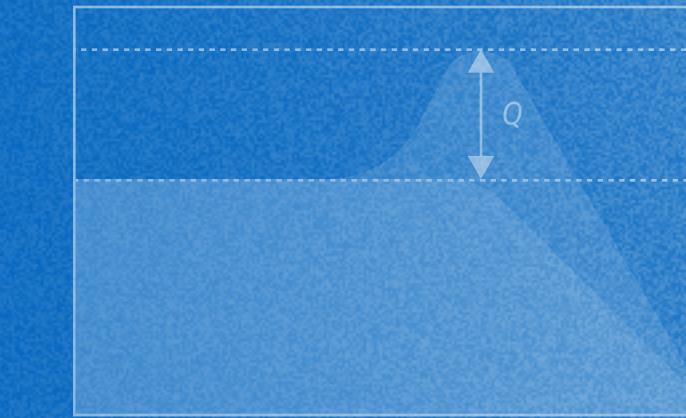
## RESONANCE PATH

Like the original MS20, **Sallen Key** offer a non linear feedback path.  
This design avoid the filter to clipping when self-oscillating, but also give it is unique color.

We've choose to integrate LED's instead of diode. It not only slightly change the color of the resonance but also give feedback information about the drive of the resonance path.

You can control the amount of resonance with the "Q" knob(3), when increasing the resonance you will see the LED (above the "Q" knob) light it.

Due to this design the resonance is dependent of the gain of the input. You can attenuate the input gain with the dedicate attenuator(4).



## GENERATE SOUND

Since **Sallen-Key** can self-oscillate it can be used as sound source.

Using the 1V/Oct input(6) you can generate notes. Tracking a pretty decent for a filter and due to its instability it excels a drone giving a rich and living sound.

# **WARRANTY**

*BLACK NOISE* guarantees its products to be free of defects in materials or construction for a period of two years from the date of purchase.

Malfunction resulting from wrong power supply voltages, backwards or reversed eurorack bus board cable connection, abuse of the product or any other causes determined by *BLACK NOISE* to be the fault of the user are not covered by this warranty, and normal service rates will apply.

During the warranty period, any defective products will be repaired or replaced, at the option of *BLACK NOISE*, the postage to *BLACK NOISE*-customer service is on the customer. The return of your module is on us.