ANTUMBRA

# ATNO

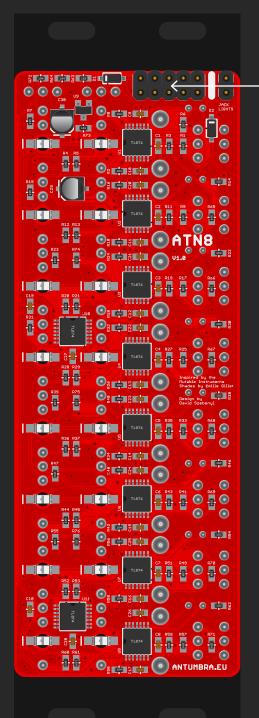
MANUAL

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# OO. THANK YOU!

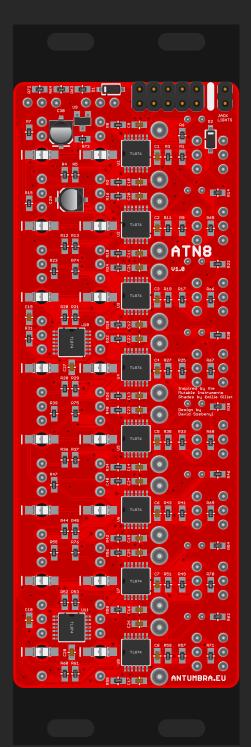
Thank you for purchasing the Antumbra ATN8 module! In this documentation you can find information about the installation and use of the module.



#### 01. INSTALLATION

When you turn ATN8 around, you should see the module as it is on the left illustration. Plug in the power cable to the power cable header pins, but BE CAREFUL with the orientation of the cable! The RED STRIPE should be towards the RIGHT of the module, indicated by the white line next to the header pins. By doing otherwise you can potentially harm the module or even your whole system! Power off your Eurorack system and connect the other end of the cable to the power source, here also pay attention to the PSU manufacturer's instructions!

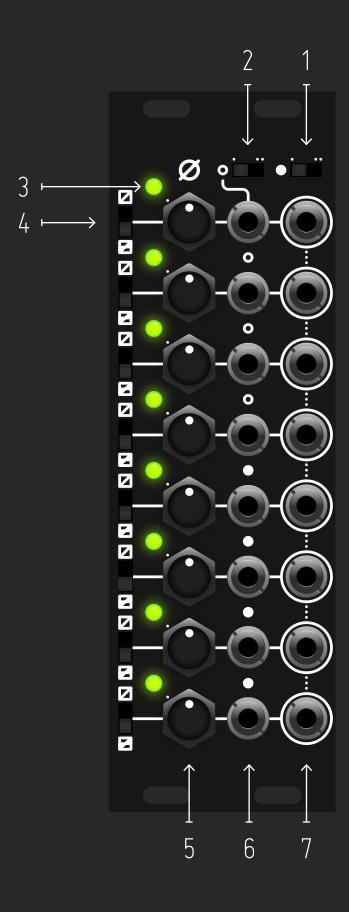
POWER CABLE HEADER: Red stripe should be on the right, next to the white marker!



# 02. JACK LIGHTS

On the back there is a jumper for enabling the jack lights. Note that by enabling them the module draws additional current from the +12V rail.

Jack lights jumper



# 03. FRONT

- 1 Voltage switch for channels 5–8
- 2 Voltage switch for channels 1–4
- 3 Status LED for the channel
- 4 Unipolar/Bipolar switch for each channel
- 5 Attenuator for each channel
- 6 Input for each channel (+/-12V)
- 7 Output for each channel (+/-12V)



#### 04. OVERVIEW

ATN8 is an eight channel attenuator with inverting, mixing and offset capabilities. The 8 channels are laid out horizontally, each with a switch to change between unipolar and bipolar modes, a status LED that reflects what's happening on the output (green is positive voltage, red is negative), an input and an output jack. The outputs are normalized for each subsequent channel so that it can be used for offset or mixing.

When there's no patch cable present on an input, it's normalized to a fixed voltage selected on the top by the two switches either to +5V or +10V.

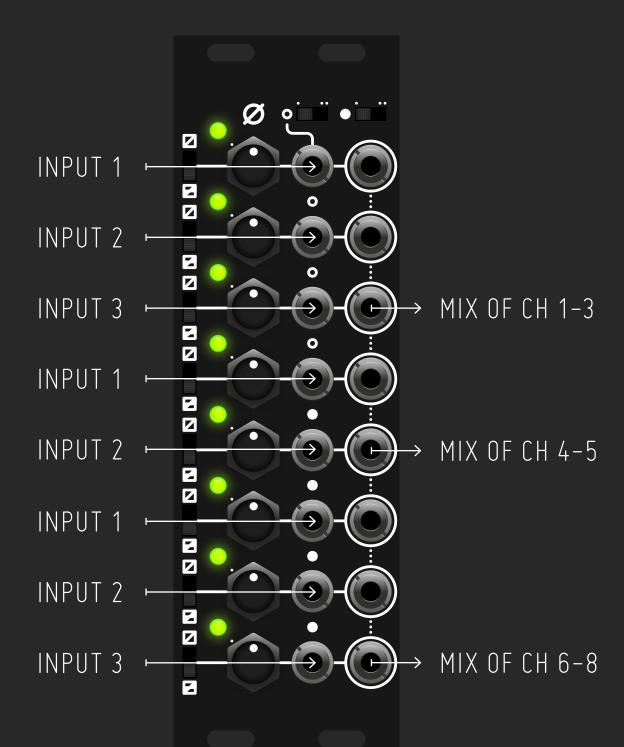


UNIPOLAR ⊢

## 05. ATTENUATORS

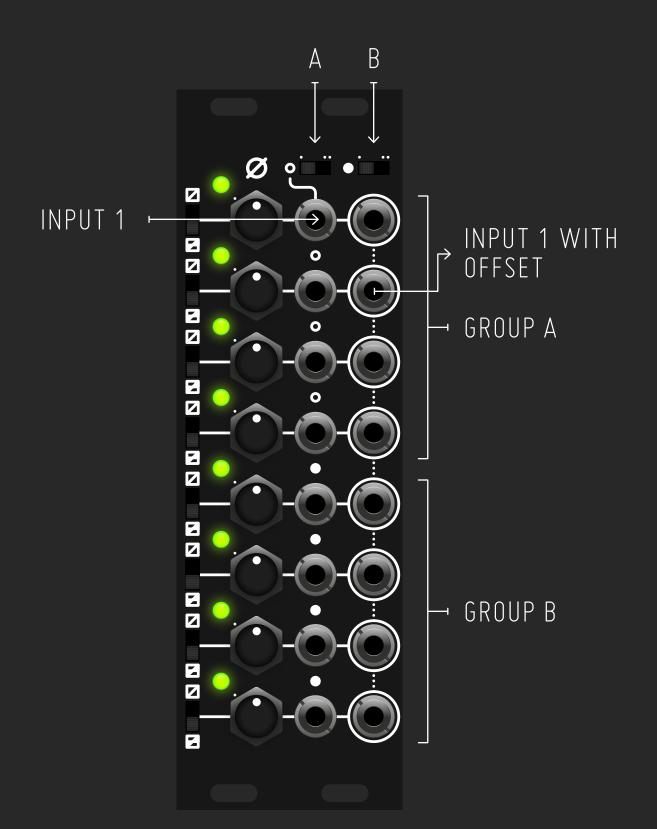
Each channel is equipped with a switch to change how the potentiometer functions. In unipolar mode the potentiometer goes the full range, fully counter-clockwise the output is OV, fully clockwise it matches the input level.

In bipolar mode OV is at 12 o'clock, turning the potentioneter clockwise it increases the output level. Turning it counter-clockwise from 12 it inverts and increases the level.



### 06. MIXING

Mixing is achieved by normalization, meaning that if you leave the output jacks unplugged, the last output jack that you patch in will contain the mix of all the previous channels (level set by the attenuators). A patch cable in the output jack breaks the normalization and on the next channel you can start a new mixing chain.



#### 07. OFFSET

If there is no cable patched in an input, the channel uses a preset voltage, changed by the top switches. There are two options:

- is 5V
- •• is 10V

The 8 channels are split into two groups for the preset voltage, each set independently by their corresponding switches. The groups are marked by an outlined and a filled circle above the input jacks and next to the switches. If a channel is set to bipolar mode, the output will be  $\pm -5 \, \text{V}$  or  $\pm -10 \, \text{V}$ .

Combining offset with mixing, you can offset an incoming signal with an input left unpatched.



ATN8 is designed by David Szebenyi under Antumbra.

<u>www.antumbra.eu</u>

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