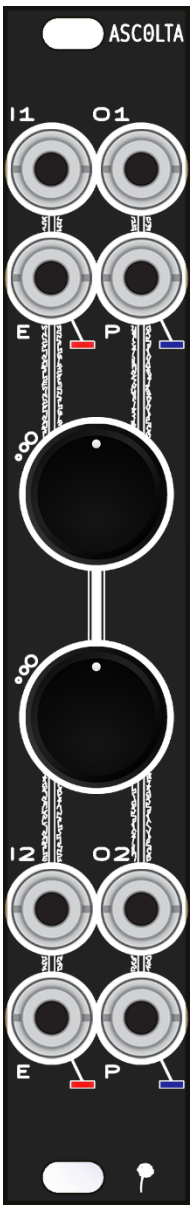
JOLIN

ASCOLTA

dual preamp follower

ASCOLTA is a dual high fidelity input preamp with envelope follower and peak detector output for each channel.



why

- To amplify stereo line level signals up to modular levels – 100x (40dB[1]).
- To extract an envelope and a peak detector CV from any given signal.
- To integrate into your system two separate sources requiring dedicated gain compensation.
- To side-chain and compress using the two audio-follower CV out and an external VCA/LPG.

with

- Laptop / phone – plug a stereo cable directly from their output and integrate that to your modular.
- Dynamic microphones – amplify two of them individually and sing with a friend.
- External synths – take those weak signals and warm them up to modular levels.
- Passive instruments – sing and play the guitar while affecting them with your spaghetti monster[2].

how

Ascolta consist of two individual high-quality preamps[3] connected to an envelope follower and a peak detector output.

On the back of the module a jumper lets you select the behaviour of *Ascolta* internal normalization when no cable is plugged into **I2**:

S (stereo): the first input **I1** will accept stereo 3.5mm standard cables from any source and split L and R to output **O1** and **O2** respectively. This way you can directly amplify stereo signals without the need of external splitters and regulate the gain of each channel individually.

G (gain): the second amplifier will double the amplification of the first totalling a gain range of 80dB - 10.000x[4].

Envelope **E** and peak **P** outputs are strictly related to the gain level of their corresponding amplifier and will follow the dynamic of any input plugged.

features

- Two high quality 40dB amplifiers.
- Customizable internal normalization with selectable stereo or double gain mode.
- Envelope follower output and peak detector output for each of the two amplifiers.
- Audio graded potentiometers.
- "Whatever" power connector a.k.a. don't mind the polarity.

specs

- dimensions ⟹ width 4HP, depth 25mm
- current draw ⟹ +12V 50ma, -12V 30ma.

Demos and build documentation at *jolin.tech/ascolta*

[1] This value is the maximum amplification with the stereo configuration selected. Be aware that past ¾ of the knob range you are possibly introducing to your output the switching noise from your eurorack power supply. Power supplies are not all the same and they can introduce a fair amount of noise at this level of amplification. A golden rule: If you want the cleanest possible highest amplification, be sure to use a high-quality power supply and to do a proper gain staging before and after the amplification.

[2] That's actually how *Ascolta* came to be.

[3] The gain stage of *Ascolta* uses two Texas Instruments LM4562 in a two-pole inverting amplifier configuration. More info and detail about the IC can be found on its datasheet.

[4] At this level *Ascolta* can become a "noise listener": while in **G** mode turn both knobs fully clockwise and without any input take the second output **O2**. Now try to swing your smartphone near the module or try clicking a few buttons on a remote while in close proximity. You'll hear some hidden electromagnetic waves and clicks. Most active electronic devices emit magnetic fields, try to catch them all.