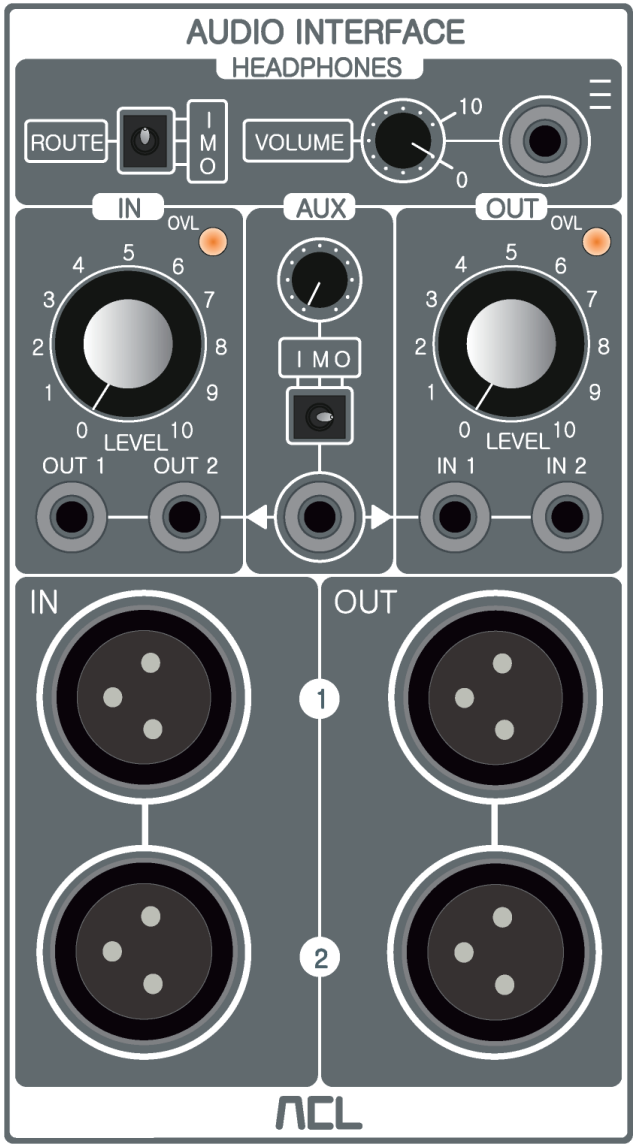
Audiophile Circuits League
Musical Instruments Manufacture

Audio Interface

User´s Manual

Eurorack Synthesizer Modules



14 HP

TABLE OF CONTENTS

1. INTRODUCTION

Audiophile Circuits League. -The main purpose of the ACL Audio Interface module is to interface modular synthesizer systems with professional audio recording and stage equipment.

The combination of studio quality signal path, flexible routing possibilities and a headphone amplifier, capable of driving both high and low impedance headphones with low distortion, makes the connection between these different environments effortless and sonically transparent.

The ACL Audio Interface offers balanced to unbalanced and unbalanced to balanced stereo lines with level controls. The stereo signal from the auxiliary input, also with level control, can be optionally routed to and mixed together either with balanced to unbalanced, or unbalanced to balanced line signals, or can be muted. The headphone amplifier can also get its signal from one or the other line after the level control and mixing stage, or can be muted. Since the amplifier is AC coupled only at the input, but not at the output, there is an on-board DC protection circuit included. In case the headphone amplifier is driven into clipping, the protection can also be tripped. The module has a soft start function* and one overload indicator for every line.

*With the soft start function, the interface switch is turned on after a while after turning on the Eurorack main unit. This function can prevent output of unexpected sound that another module will emit at startup, which will cause damage to the speaker.

2. WARRANTY

In the event of a fault in use, we will repair or replace it free of charge under the warranty terms stated below. The warranty period is valid for one year from the day of purchase. If repair is necessary, please ask the dealer you purchased it from.

We can not guarantee the incidental damage caused by the breakdown or damage that occurred during use of this product. In addition, warranty will expire in the following cases:

· Failure / damage caused by use of unspecified power supply / accessories.
· Failure / damage caused by incorrect connection or use of power cable.
· Failure / damage caused by improper handling method.
· Failure / damage caused by natural disasters (fire, flooding etc.) and pollution.
· When the cause of breakdown or damage lies in equipment other than this product.
· Failure / damage caused by improper modification, adjustment, parts replacement.
· Failure / damage when used under particularly severe conditions, when loaned/rental/hired out to 3rd party.

Is it a malfunction?

Please read the user's manual carefully and check again. If you think that there is still a problem, please consult the dealer you purchased from or contact us (English) .

support@audiophilecircuitsleague.com

3. INSTALLATION

⚠WARNING

*Always turn the Eurorack unit off and unplug the power cord before pluging the Eurorack power cable.

*When attaching the Eurorack power cable, please be careful not to touch the terminal part.

Connect to the Eurorack's system power supply (+ 12V) using the supplied Eurorack power cable.

Connect the 16-pin connector to the Eurorack power connector. Connect the red mark on the power cable so that it matches the pin on the (- 12 V) side of the power connector.

Connect the 10 pin connector to the shrouded header on the back of the module. The header is protected against reverse-plugging.

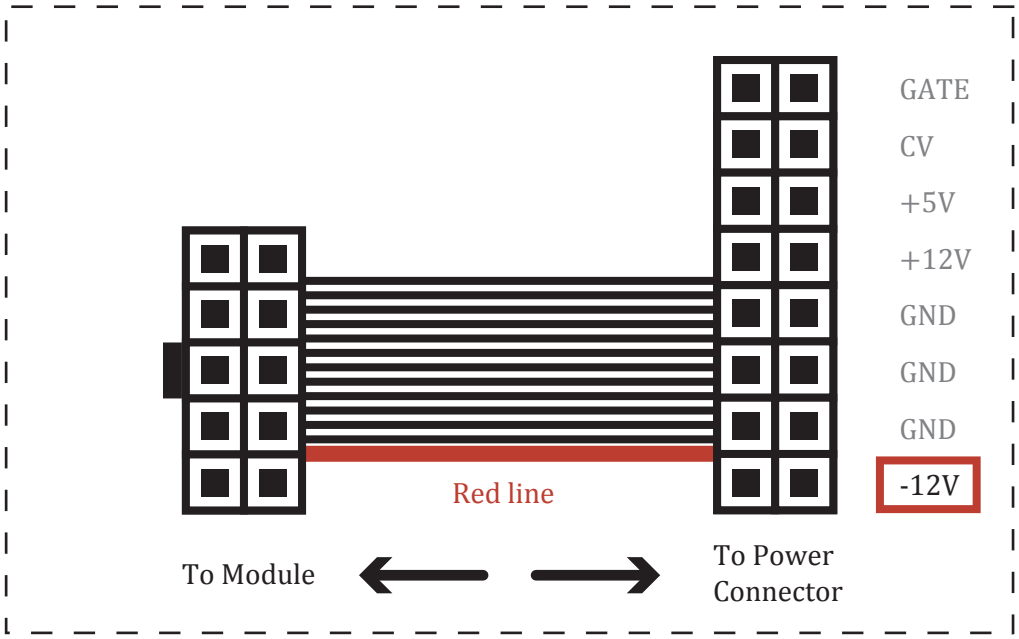


FIG.1：Eurorack power cable

4. FUNCTION OF PANEL COMPONENTS

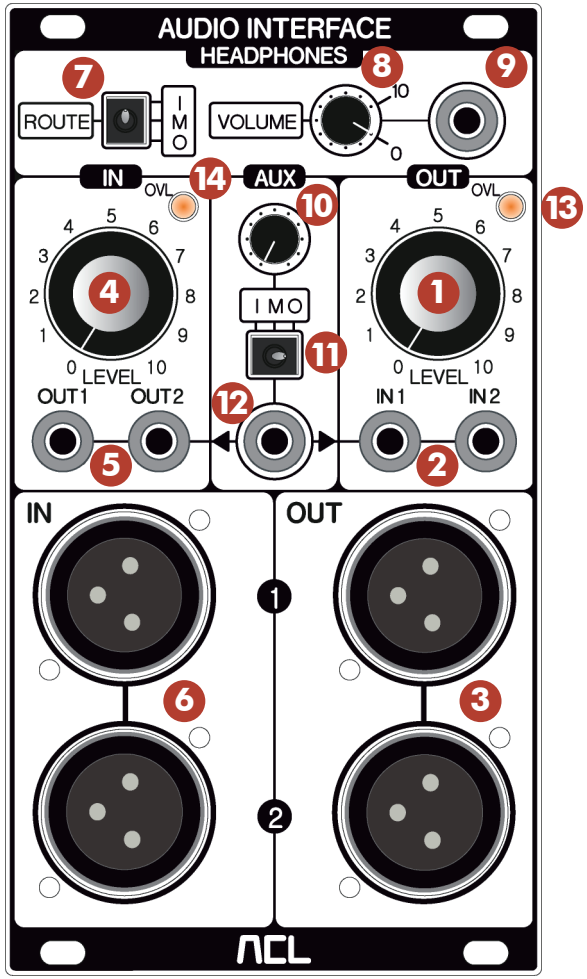


FIG.2：Front Panel

① "OUT LEVEL" knob

Output volume control for ③ "OUT" XLR sockets.

② "IN 1" "IN 2" jacks

3.5mm audio inputs (mono) for AC coupled unbalanced signals. Typically, you will enter the modular final audio outputs into these jacks. These audio signals are converted to balanced signals and output from ③ "OUT" XLR sockets.

③ "OUT" XLR sockets

Unbalanced signals inputs from ② "IN 1" "IN 2" jacks are converted to the balanced signals and output from these XLR sockets (male). The volume of the outputs is adjusted by ① "OUT LEVEL" knob.

④ "IN LEVEL" knob

Adjusts the volume of the audio signal input from ⑥ "IN" XLR sockets.

⑤ "OUT 1" "OUT 2" jacks

Balanced audio signals input from ⑥ "IN" XLR sockets are converted to unbalanced signals and output from these jacks. For example, you can use these output audio signals, such as sending them to the filter module of the modular system.

⑥ "IN" XLR sockets

DC coupled electronically balanced audio signals are input from these XLR sockets (female), converted into unbalanced audio signals, and output from ⑤ "OUT 1" "OUT 2" jacks.

⑦ "HEADPHONES ROUTE" switch

Select the source to output to the headphones. The monitoring route is as follows.

To monitor the output audio → "O"
*Audio output signals from ③ "OUT" XLR sockets
*Audio input signal from ⑫ "AUX" jack. (If ⑪ "AUX" switch is set to "O")

To monitor the input audio → "I"
*Audio input signals from ⑥ "IN" XLR sockets.
*Audio input signal from ⑫ "AUX" jack. (If ⑪ "AUX" switch is set to "I")

When you want to mute monitoring → "M"

⑧ "HEADPHONES VOLUME" knob

Adjust the volume of the headphone output.

⑨ "HEADPHONES" jack

3.5 mm stereo jack for headphone output.

~TIPS about headphone~

DC and clipping protection circuit for the headphone amplifier, switches off headphone output if DC at the output exceeds ±50 mV and/or in case of hard clipping.

⑩ "AUX" knob

Adjusts the volume of external input audio signal from ⑫ "AUX" input jack.

⑪ "AUX" switch

Mix external input from ⑫ "AUX" jack to "IN", "OUT" or "MUTE".

⑫ "AUX" jack

Enter the AC coupled auxiliary stereo signal. Input impedance is 220 kOhm.

⑬ "OUT OVL" overload indicator

Lights up when the output audio signal causes clipping. It operates when the audio level reaches 4.5 Vpp. Use the ① "OUT LEVEL" knob to adjust the volume.

⑭ "IN OVL" overload indicator

Lights up when the input audio signal causes clipping. It operates when the audio level reaches 4.5 Vpp. Use the ④ "IN LEVEL" knob to adjust the volume.

5. SIGNALFLOW & ROUTING

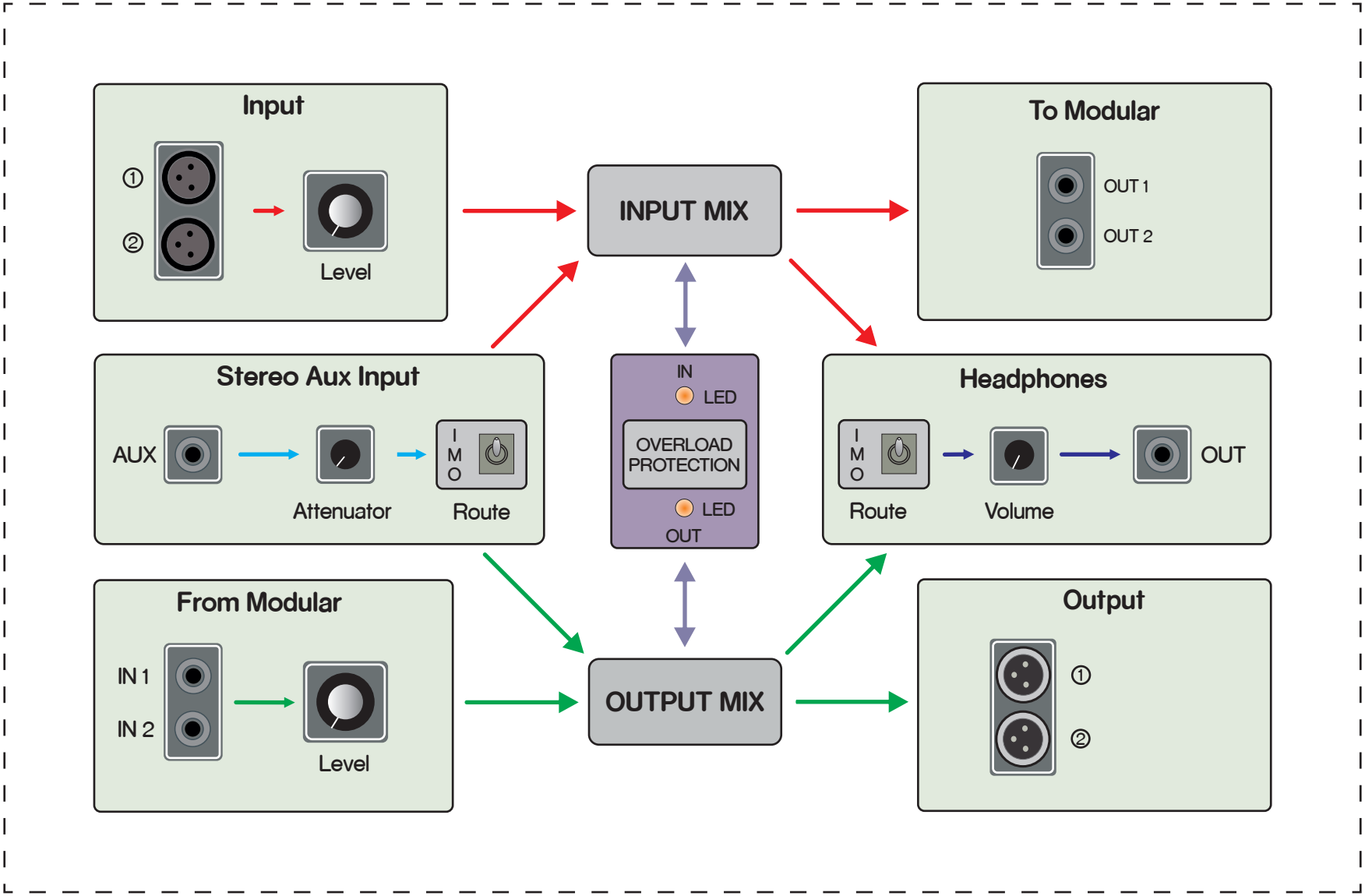


FIG.3: Audio Interface signalflow & routing

6. SPECIFICATIONS

Power

Eurorack system power supply

Width

14 HP

Depth

22 mm

Power consumption

-12V 120 - 200 mA +12V 110 - 200 mA

(depends on settings)

Accessories

· Eurorack power cable x1

· Mounting screws x4