

ACL

Audiophile Circuits League
Musical Instruments Manufacture

M/S-MATRIX

User's Manual

Eurorack Synthesizer Modules



10 HP

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1. INTRODUCTION

Audiophile Circuits League. -M/S-MATRIX is extracting the mid and the side signal from an stereo audio signal. Also it can convert back the mid and side signal, providing a left/right stereo signal. This module can be very useful for manipulation of the stereo image of an stereo audio signal. Think about filtering just the side component by an high pass filter to get rid of stereo information in the bass frequencies for example. Countless other application can be thought of. The module creates the sum and the difference of the left and right channel to extract the mid (sum) and side (difference) signal. To restore the left / right stereo signal from the mid/side signal the mid-signal is just routed both to the internal left and the right output signal bus of the module while the side signal will be added to that bus differentially (non inverted to the left output and inverted to the right output).

There are examples of usage as follows:

- Changing the stereo base-width to mono for lower frequencies (using a inserted filter in the side-signal chain).
- Compressing the side signal differently from the mid signal to exaggerate the "ambience" of a recorded or mixed stereo signal.

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 plugging 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.

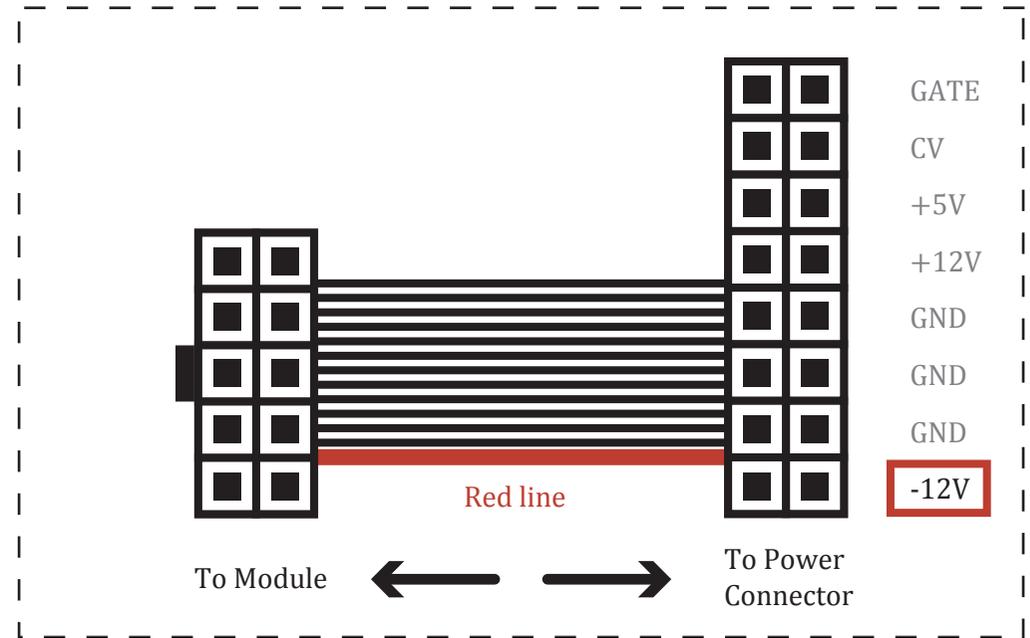


FIG.1 : Eurorack power cable

4. FUNCTION OF PANEL COMPONENTS

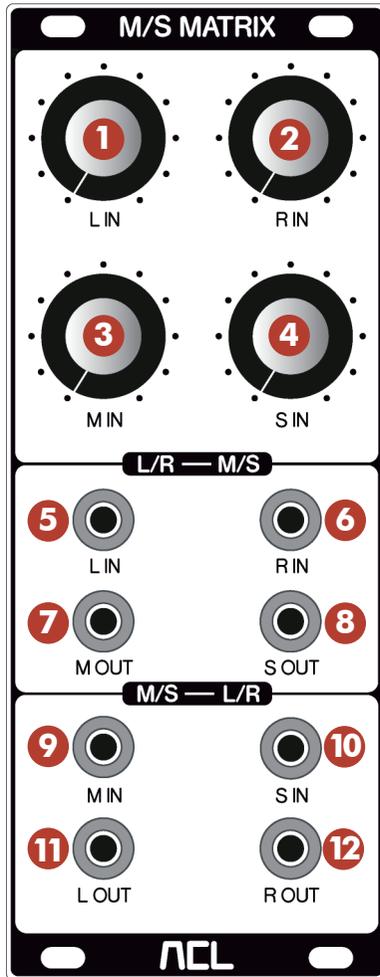


FIG.2 : Front Panel

① "L IN" knob

This is an attenuator for the audio signal input from ⑤ "L IN" input jack.

② "R IN" knob

This is an attenuator for the audio signal input from ⑥ "R IN" input jack.

③ "M IN" knob

This knob Adjusts the volume of the MID component of the final audio signal output from ⑪ "L OUT" & ⑫ "R OUT" output jack.

④ "S IN" knob

This knob adjusts the volume of the SIDE component of the final audio signal output from ⑪ "L OUT" & ⑫ "R OUT" output jack.

⑤ "L IN" input jack

Input the audio signal (left channel) for M/S processing.

⑥ "R IN" input jack

Input the audio signal (right channel) for M/S processing.

⑦ "M OUT" output jack

It outputs MID component after M/S processing.

⑧ "S OUT" output jack

It outputs SIDE component after M/S processing.

⑨ "M IN" input jack

Input the audio signal output from ⑦ "M OUT" output jack. By opening ⑦ and ⑨, it is possible to use an external effector such as a compressor in between.

⑩ "S IN" input jack

Input the audio signal output from ⑧ "S OUT" output jack. By opening ⑧ and ⑩, it is possible to use an external effector such as a high pass filter, compressor in between.

⑪ "L OUT" output jack

It outputs the audio signal (left channel) after M/S processing.

⑫ "R OUT" output jack

It outputs the audio signal (right channel) after M/S processing.

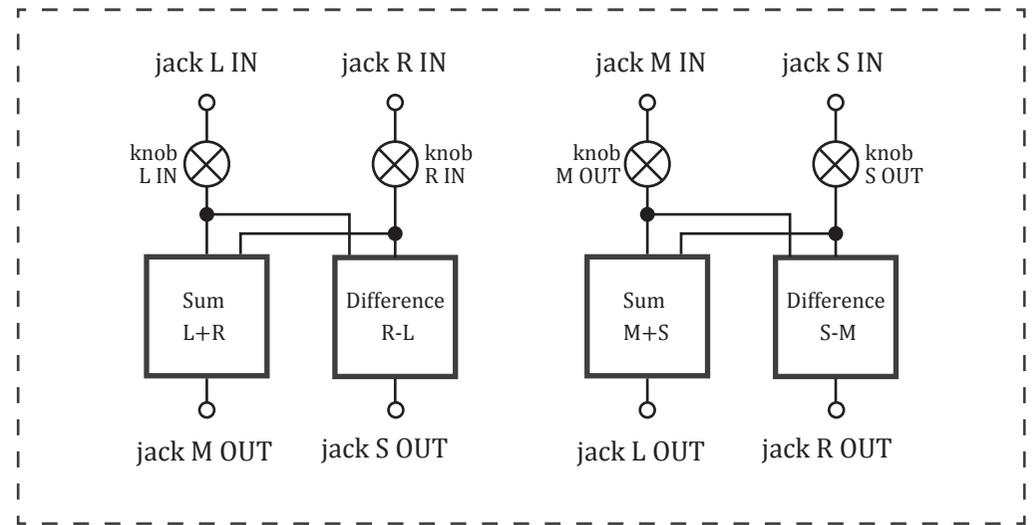


FIG.3 : Signal flow and processing

5. SPECIFICATIONS

Power

Eurorack system power supply

Width

10 HP

Depth

22 mm

Power consumption

Ca. 16 mA on -12V / ca. 16 mA on +12V

Accessories

- Eurorack power cable x1
- Mounting screws x4