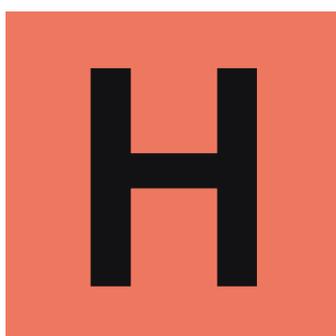


HASound MSLR

Mid/Side encoder/decoder

User manual



HASound



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Chapter 1 - Introduction

1.1 Welcome

Thank you for choosing HASound audio software. Please read this user manual before you start using our signal processor.

If after reading you still have questions, you can always ask for help at: support@hasound.com

We also recommend to follow the HASound news and software updates using our RSS feed:

<http://www.hasound.com/rssfeed.php>

Audio Unit version implemented using Symbiosis from NuEdge Development.

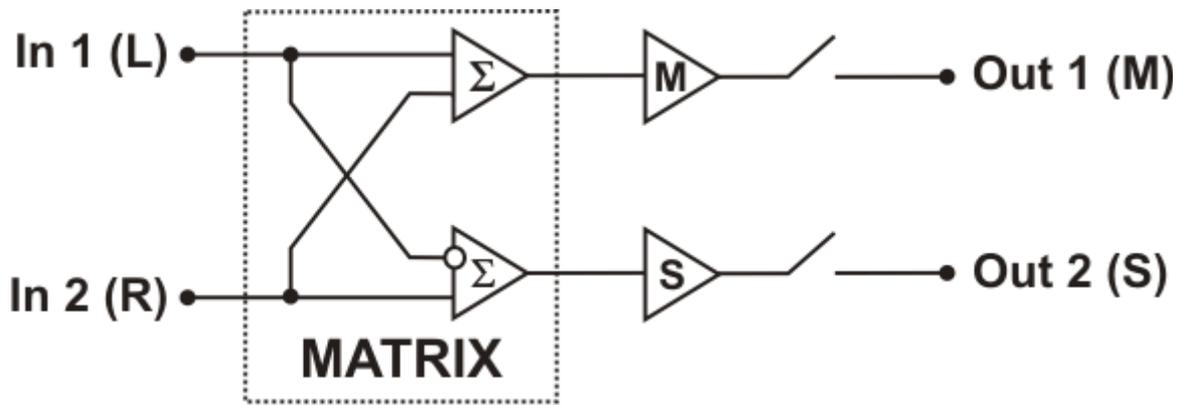


1.2 Product Overview

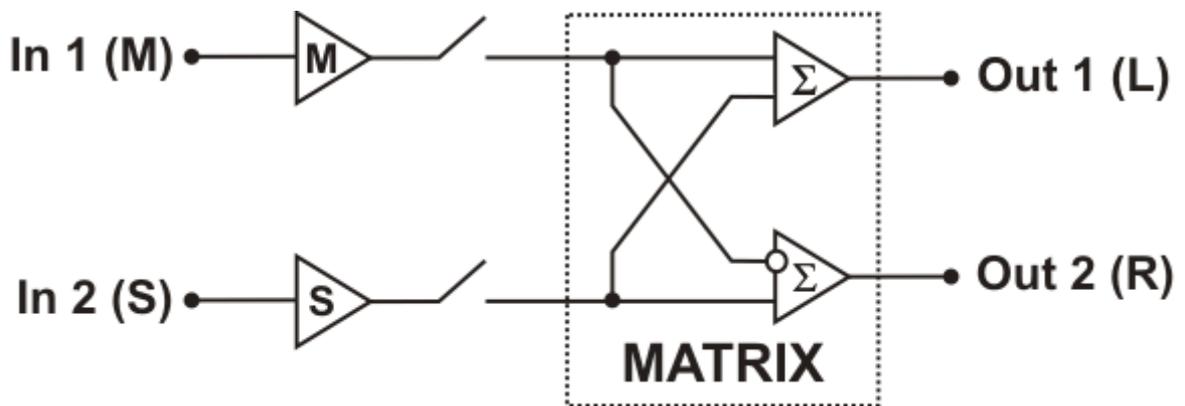
HASound MSLR is a M/S encoder/decoder.

In encoder mode MSLR converts Left/Right input to Mid/Side output. In decoder mode it converts Mid/Side input to Left/Right output. The signal routing inside plug-in are different at encoder and decoder modes. See more on images below.

Encoder mode:



Decoder mode:



Chapter 2 - Interface and Controls



Middle knob controls gain of **M** signal in range -24 dB..+24 dB.

Side knob controls gain of **S** signal in range -24 dB..+24 dB.

Middle button enable or mute **M** signal (enable by default).

Side button enable or mute **S** signal (enable by default).

Mode button switches encoder/decoder mode.

Appendix. What is M/S processing?

Mid/Side processing works by decoding a stereo signal into two components. The 'Mid' channel contains just the information that appears in both the left and right channels, and the 'Side' channel contains all the information that differs between the left and right channels. Once encoded into M/S, these two signals can be processed completely separately, before being matrixed back into conventional L/R stereo.

There are some great uses Mid/Side processing for equalization. It's accepted as standard practice that low-frequency instruments such as kick drums and bass should be kept in the center of the stereo field. The human brain finds it very difficult to locate the source of low frequencies, so it's fairly pointless to pan them anyway.

Also you can use Mid/Side processing for adding air & space. On either your master channel or your reverb return channel, try inserting an equaliser and gently boosting the low-mid and high frequencies in only the Sides channel. This will enhance the stereo space of your track without muddying up the Mid channel. Another way to achieve this is to scoop some of the mid-range frequencies from the Mid channel on your reverb return.

It's important to remember that, when using Mid/Side signals during music production, the mid/side elements are converted back into left/right at the end of the chain. So it's left/right in and left/right out, as shown below.

