



MLM82S

User Guide English (3–7)

Appendix English (28–29)



(61) 3051-5800
<https://loja.rhox.com.br>

User Guide (English)

Introduction

The Rane MLM82S features four balanced, studio-grade, mono Mic/Line inputs with XLR jacks and 15 VDC phantom power. Each of the four Mic/Line inputs may be assigned to A, A+B or B Outputs. Independent Level/Gain Trim controls and Signal/Overload indicators are provided for each Mic/Line input. The phantom power switch and the Mic/Line switches are located on the rear panel. Phantom power is removed from any input set for Line operation. The MLM82S also features four stereo line-level inputs with 12 dB of gain. Each stereo line input features a recessed Mono switch with indicator and level control. These inputs may also be used with four Mono A inputs and four Mono B inputs. A and B output level controls set the master mix level independently for A and B outputs. The mix amplifiers feature independent overload indicators. To correct any overload condition, the entire mix can be reduced and/or individual input levels adjusted. A and B mix outputs each have an internal switch for padding the output signal to mic-level. The factory default is line-level.

With features like Mic/Line A / A+B / B switches, independent stereo Line input mono switches and additional line gain, the MLM82S is now one of the most versatile mixers in its class. It is ideal for installations requiring ease of use, compact size, low cost, high performance, and security. Applications include, but are not limited to, hotels, churches, conference rooms, schools, and rental sound systems. The studio-grade specifications of the MLM82S allow many other applications such as submixing, recording, and post-production. The Mic/Line assign switches and independent mono switches for each of the stereo Line inputs make the MLM82S a true, dual-zone capable mixer, i.e., the outputs may be thought of as two independent zones or a single stereo zone.

Features

- Four balanced XLR Mic/Line inputs
- 15V phantom power
- Bi-color signal/overload indicators
- Trimless mic stage preamplifiers
- A / A+B / B assign switch
- Four balanced TRS stereo line inputs
- Independent Mono switch
- 12 dB of Line gain
- Two balanced XLR outputs
- Independent overload indicators
- Independent Level controls
- Internal pad for mic-level output
- Internal universal power supply (100-240 VAC)

Box Contents

MLM82S

Power Cable

User Guide

Safety & Warranty Manual

Support

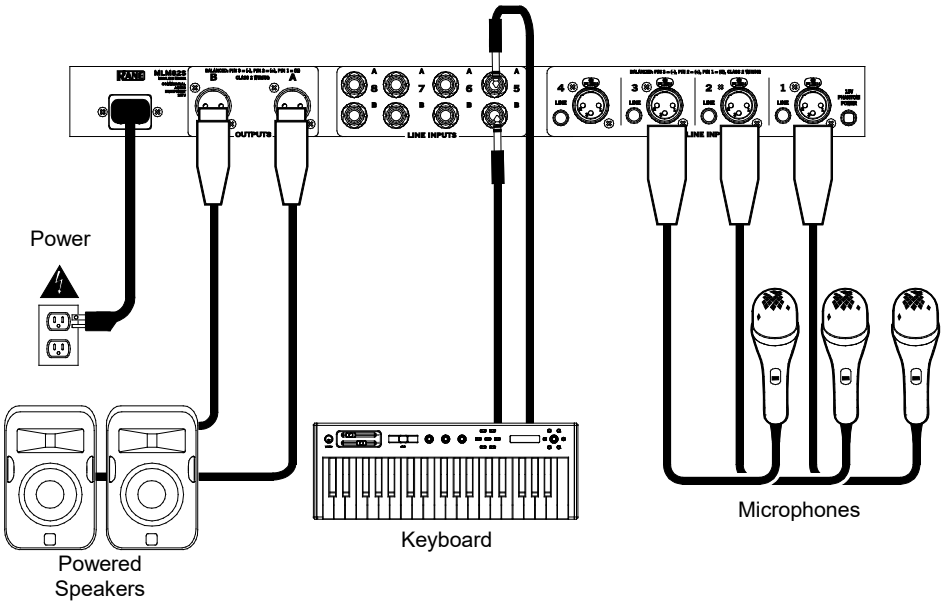
For the latest information about this product (documentation, technical specifications, system requirements, compatibility information, etc.) and product registration, visit rane.com.

For additional product support, visit rane.com/support.

Setup

Items not listed under [Introduction > Box Contents](#) are sold separately.

This section is provided as a convenience for those in a rush. If you are experienced with this unit or other Rane products, these few words will refresh your memory. **Inputs 1-4** may be mic or line-level. The choice between the two is made by setting the **Line** push buttons on the rear of the unit next to the **Mic/Line inputs**. Each microphone input may be assigned to **A, B** or **A+B** outputs using the front panel **Assign** switches. **Inputs 5-8** are stereo line inputs which may be set to mono using the recessed **Mono** switches located on the front panel. Internal switches allow setting output signal levels for **Mic** or **Line**. The factory default setting is **Line**. If the MLM82S is connected directly to a power amplifier, equalizer, or recorder input, choose **Line**. If the MLM82S is connected to a microphone jack of an existing sound system, choose **Mic**. Once inputs, outputs, and power are properly connected, with the **Output Levels** counter-clockwise (off), set the input levels as high as possible without causing the **Sig/OI** indicators to illuminate. Then slowly raise the output levels as desired.



Mic/Line Inputs

The four XLR jacks provided on the MLM82S are balanced Mic/Line inputs. They will also accept unbalanced connectors. Use only shielded cable for inputs. For best noise rejection use two-conductor-plus-shielded wire, even for unbalanced operation. Connect the shield at both ends to help insure proper grounding. See the Sound System Interconnection RaneNote for all cable adaptations: rane.com/note110. Rane follows the AES recommended practice of pin 2 positive, pin 3 negative, and pin 1 to shield. Switch any input connected to a microphone to the Mic position (out) using the associated switches on the rear panel. When connecting line-level signals, switch the input to the Line position (in). A single phantom power switch is provided for the four Mic inputs. If Line is selected, phantom power is disabled for that input.

Stereo Line Inputs

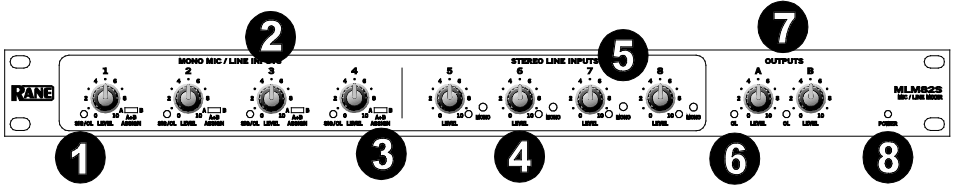
The 1/4" connectors are line-level balanced/unbalanced inputs. If the MLM82S is to be used with unbalanced sources, consult the Sound System Interconnection RaneNote for proper wiring: rane.com/note110. Stereo inputs use both A and B jacks at each input. Inputs 5-8 also serve as mono inputs when the front panel Mono switch is engaged.

Outputs

The MLM82S's outputs are balanced. The same wiring conventions as the XLR inputs apply to the outputs. The type of device following the MLM82S must be considered when setting the internal Output Level switch. Choose between Line (0 dB) or Mic (-40 dB) output, the factory setting is Line. If the MLM82S is connected directly to a power amplifier input, choose line-level. If the MLM82S is connected to a microphone jack on an existing sound system, choose mic-level. For unbalanced output connections, do not tie pin 3 (i.e. "–") to ground.

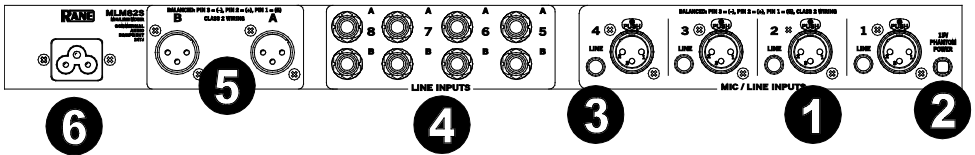
Features

Front Panel



1. **Signal/Overload LED:** This LED illuminates green when a signal of at least -30 dBu is received, and turns red when the signal is within 3 dB of clipping. If the Overload LED illuminates, turn down the input signal to prevent the signal from distorting.
2. **Mono Input Level:** Adjust this knob to control the level of each mono channel.
3. **Assign Switches:** Adjust these switches to route the signal for each Mic/Line input to the A, A+B, or B outputs.
4. **Stereo Line Input Level:** Adjust this knob to control the amount of the stereo input signal routed to the outputs.
5. **Mono Switch:** Adjust this switch to control the mix for the A and B sides of each stereo line input together. When active, the associated LED lights and the A and B inputs for that channel will have the same level.
6. **Output Overload LED:** This LED illuminates when within 3 dB of clipping. To avoid this, the output level control can be decreased, or the individual input level can be lowered.
7. **A and B Output Level Controls:** Adjust these knobs to set the output level for the A and B outputs.
8. **Power LED:** This LED is lit whenever adequate power is applied to the unit.

Rear Panel



1. **Mic/Line Inputs 1-4:** Connect microphones or line-level devices to these balanced XLR inputs.
2. **Phantom Power Switch:** Adjust this switch to apply 15V phantom power to any of the inputs 1-4 that are set for mic-level.
3. **Line Input Selectors:** Adjust this to switch the sensitivity and input impedance for either mic or line-level input. If Line is chosen, phantom power is deactivated for that input.
4. **1/4" Line Inputs:** These stereo pairs of balanced inputs accommodate stereo line-level signals. These TRS (Tip-Ring-Sleeve) 1/4" jacks handle either balanced or unbalanced signals. In most cases, an unbalanced signal may use a mono 1/4" plug (Tip-Sleeve).
5. **A and B Outputs:** These balanced XLR's provide the A and B mixed output. The internal output level switches allow setting the output level for mic or line-level.
6. **Power Connector:** Connect the included power cable here.

Operation

Since numerous applications exist for the MLM82S, no single set of operational procedures control its use. Visit rane.com/note110 to view Sound System Interconnection note which explores the many configurations of the MLM82S in depth.

Internal Jumper Options

The A and B mix outputs each have internal switches for padding the output signal from line-level (factory default) to mic-level. This requires removal of the top cover to move some jumpers. This must be done with the power cable disconnected and by qualified service personnel.

Appendix (English)

Technical Specifications

Parameter	Specification	Limit	Units	Conditions/Comments
Inputs: Type	Active Balanced			Tip=(+), Ring=(-), Sleeve=GND
Connectors	1/4" TRS, XLR			
Impedance	1/4" TRS = 20k XLR = 1k / 96k	1%	Ω	
Maximum Level	11.9	1	dBu	
Outputs: Type	Active Balanced			1 kHz 600 Ω load balanced
Connectors	XLR			
Impedance	200/100	typ	Ω	
Maximum Level	24	1	dBu	
Overall Gain Range	Off to +6	-0/+2	dB	
Crosstalk				
Channel-Channel	75 (1 kHz)	max	dB	
Maximum Power	7		W	
Universal Line Voltage	100 to 240	10%	VAC	50/60 Hz
Dimensions	19" x 5.3" x 1.75" / 48.3 x 13.5 x 4.4 cm			Width x Depth x Height
Weight	4 lbs. / 1.8 kg			net

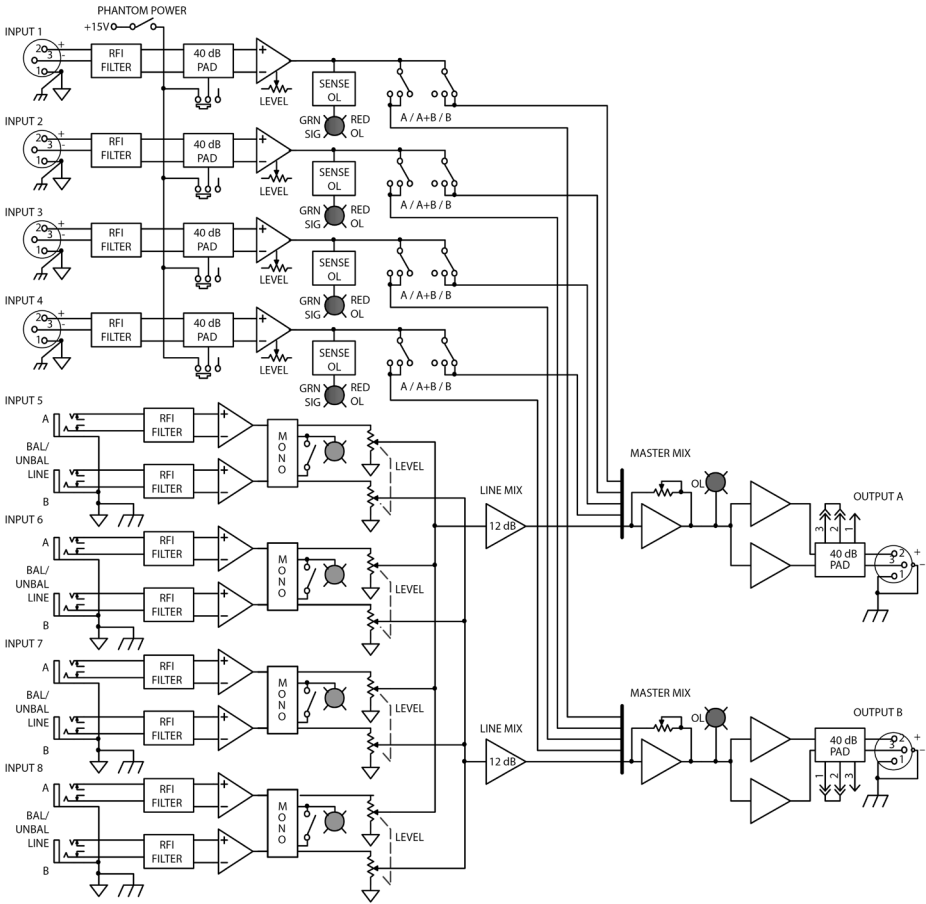
Note: 0 dBu = 0.775 Vrms.

Specifications are subject to change without notice.

Trademarks & Licenses

Rane is a trademark of inMusic Brands, Inc., registered in the U.S. and other countries.

Block Diagram



rane.com