



## General Description

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 line 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. You get the picture... this mixer is very versatile.

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.

## Features

- Four balanced Mic/Line Inputs (XLR) with...
  - 15V Phantom Power
  - Bi-Color Signal Present/Overload indicators
  - Trimless Mic Stage Preamplifiers
  - A / A+B / B Assign Switch
- Four Balanced Stereo Line Inputs (TRS) with...
  - Independent Mono switch
  - 12 dB of Line Gain
- Two balanced Outputs (XLR) with...
  - Independent Overload indicators
  - Independent Level controls
  - Internal Pad for Mic level output
- Internal Universal Power Supply (100-240 VAC)

## Applications

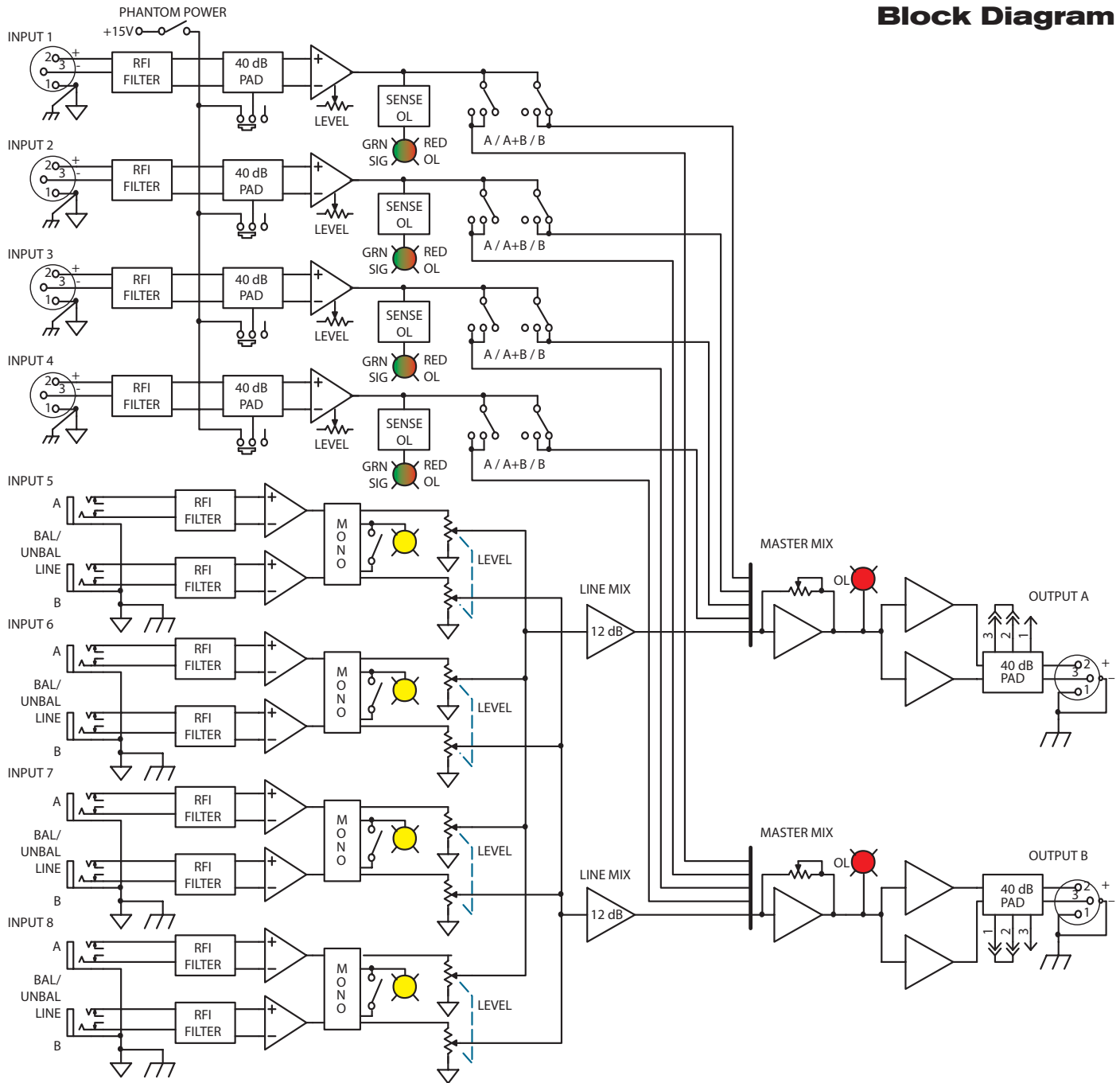
With features like Mic/Line A / A+B / B Assign switches, independent Stereo Line Input Mono switches and additional line gain, the MLM82S is now one of the most versatile mixers in its class. It is ideal for installations requiring ease of use, compact size, low cost, high performance and security. Applications 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 sub-mixing, 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 and Specifications**

Parameter	Specification	Limit	Units	Conditions/Comments
Inputs: Type	Active Balanced			
.....Mic Connectors	XLR			pin 2 = (+)
.....Stereo Line Connectors	¼" TRS			tip=(+), ring=(-), sleeve=GND
Mic / Line Input Impedance	1k / 96k	1%	Ω	Balanced 500+500 / 48k + 48k
.....Mic Gain Range	off to +60	±1.5	dB	
.....Line Gain Range	off to +20	±1.5	dB	
.....Equivalent Input Noise	-128	typ	dBu	20 kHz bandwidth, 150 Ω termination
.....THD & Noise	0.02	max	%	Gain=40 dB, +4 dBu @ 1 kHz, 80 Hz BW
.....Frequency Response	30 Hz - 35 kHz	-3	dB	
.....Maximum Input	11.9	typ	dBu	Minimum Gain (3 Vrms)
.....@ Mic Level	38.6	typ	dBu	Maximum Gain (9.1 mVrms)
Stereo Line Input Impedance	20k	min	Ω	
.....Gain Range	off to +12	±1	dB	
.....Signal-To-Noise Ratio	90	typ	dB	Unity gain, output @ +4 dBu, 22 kHz BW
.....Frequency Response	10 Hz - 35 kHz	-3	dB	
.....THD & Noise	0.007	max	%	+4 dBu at 1 kHz, 80 kHz BW
Outputs: Type	Active Balanced			
.....Connectors	XLR			
.....Impedance	200/100	1%	Ω	Line level Out/Mic level Out
.....Gain Range	Off to +6	±2	dB	
.....Drive Level	+24		dBu	600 Ω load balanced
Phantom Power	+15	4%	VDC	
Output Cable Length	1500	typ	feet	Line-level, <50 pF per foot
Crosstalk	-75 @ 1 kHz	max	dB	re +4 dBu any channel to any channel
Power Supply Requirement	100 to 240	10%	VAC	50/60 Hz, 7W
Unit: Conformity	CE, FCC, cULus			
Unit: Construction	All Steel			
.....Size	1.75"H x 19"W x 5.3"D (1U)			(4.4 cm x 48.3 cm x 13.3 cm)
.....Weight	4 lb			(1.82 kg)
Shipping: Size	4.25" x 20.3" x 13.75"			(11 cm x 52 cm x 35 cm)
.....Weight	8 lb			(3.63 kg)
<i>Note: 0 dBu=0.775 Vrms</i>				

**Block Diagram**

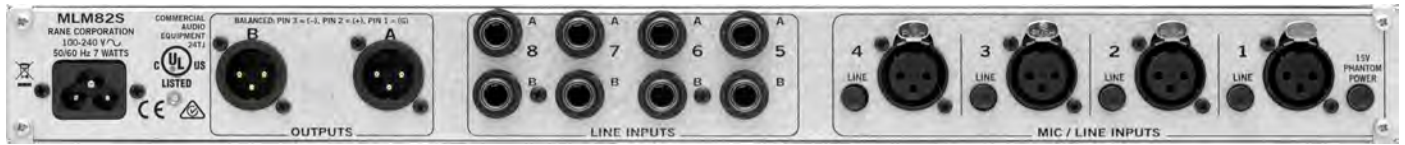


# MLM82S

## MIC & LINE MIXER



### Rear Panel



### Architectural Specifications

The mixer shall have four studio-grade mono mic/line inputs each with XLR input jack, 15 V phantom power, line pad, A / A+B / B mix assign switch, level control and signal/overload indicator. A single switch shall make phantom power available to all four microphone inputs. Phantom power shall be removed automatically from any mic/line input set for line input. For ease of use, mic/line preamplifiers shall use a single control for input gain trim and mix level.

The mixer shall feature four stereo line inputs each with 1/4" TRS input jack, level control and pre-level control mono switch. The inputs shall provide for dual mono operation with four mono signals available for the A mix and four mono inputs available for the B mix.

A and B mix outputs shall feature overload indicators, independent A/B level controls, internally selected 40 dB pad for microphone level output and XLR output jacks.

Security features shall include placement of the phantom power and line switches on the rear panel, recessed assign switches, internally located pad switch for selecting line or microphone output level and recessed stereo line input mono switches with position indicators.

The unit shall be capable of operation by means of its own built-in universal power supply operating at 100-240 VAC and meet CE requirements. The unit shall be UL and cUL listed. The unit shall be constructed entirely from cold-rolled steel, and mount into a standard EIA relay rack occupying 1 rack-space.

*The unit shall be a Rane MLM82S Mic & Line Mixer.*

### Application Diagram

