



Description

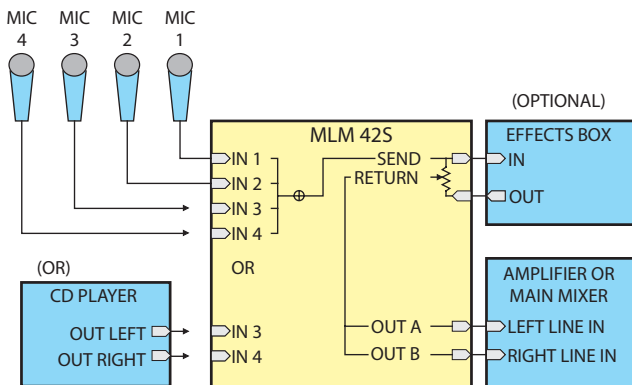
The evolution of the entertainment industry has necessitated the creation of an outboard mic/line device to compliment existing mixing consoles. Whether you're recording, mobile mixing, or broadcasting, there are occasional needs to expand your existing arrangement. Frustrations abounded when it came to adding mics for interviews, karaoke, and live performances because it was cost prohibitive. Now it's quite inexpensive to enhance your existing gear and expand the number of live mics for any gig. The MLM42S is unique. These mic preamps give you the studio-grade quality you need.

Applications are everywhere. The MLM42S is designed to fit into a variety of situations where cost is an issue and Rane quality is a must:

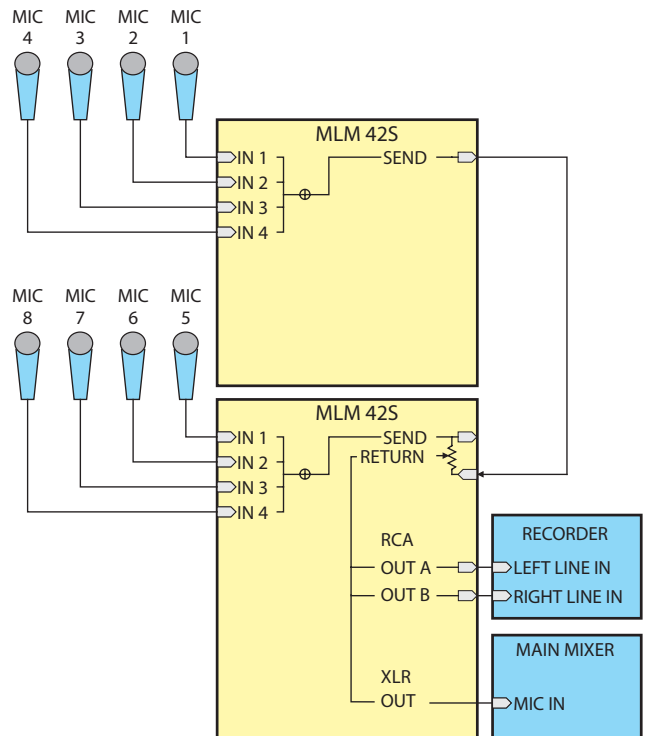
- Live Sound
- Studio and Remote Radio & Television Broadcasting
- Night Club
- Fixed Commercial Installations
- DJ Mixer (Mic) Expansion
- Karaoke

Each input includes all the features you need:

- Input Level control with Overload indicator
- 15 Volt Phantom Power
- Dedicated mic and line input jacks
- 3-band *Accelerated-Slope™*, full-cut tone controls
- Four quality mic preamps, quiet to -126 dBu EIN
- Post-mix Effects loop includes Wet/Dry pan control
- RCA unbalanced; XLR & ¼" TRS balanced parallel outputs
- Balanced outputs Mic or Line selectable



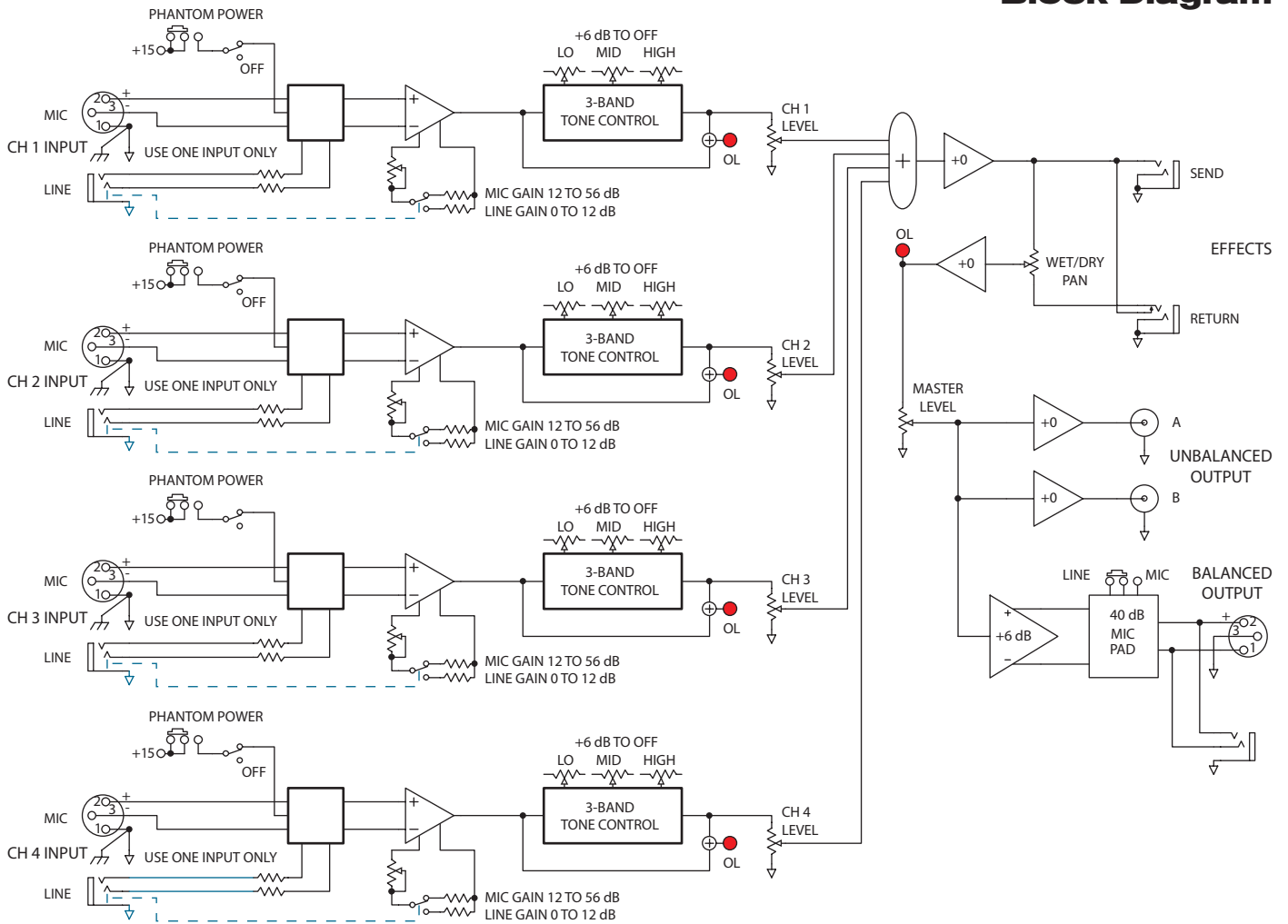
4 Mic Mixer, or 2 Mics and a CD Player



Connecting 2 MLM42S's for 8 Mic Inputs

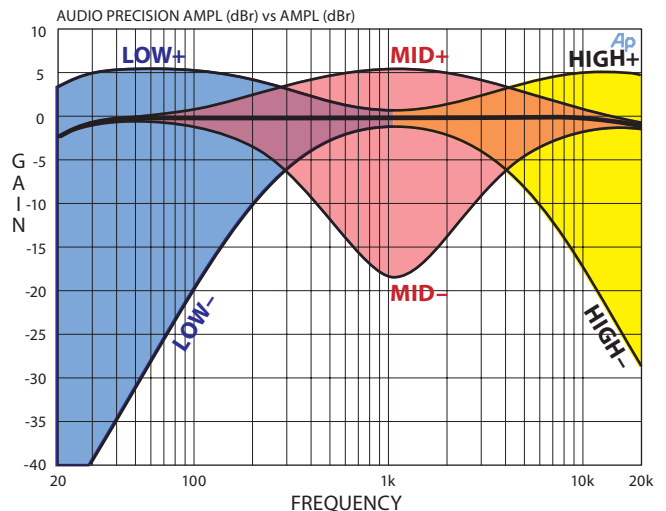
Parameter	Specification	Limit	Units	Conditions/Comments
Mic Inputs: Type	Active balanced			Burr-Brown INA 163
.....Connectors (Mic/Line)	XLR / TRS			Pin 2 = (+) hot / Tip-Ring-Sleeve
.....Input Imped. (Mic/Line)	836 / 3.32k	1%	Ω	each leg, 1 kHz
.....Gain Range (Mic/Line)	12 to 50 / 0 to 12	2	dB	1 kHz
.....Max Input (Mic/Line)	+10 / +22		dBu	min gain, 1 kHz
.....Max Input (Mic/Line)	-28 / +10		dBu	max gain, 1 kHz
.....Frequency Response	10 Hz-50 kHz	+5,-3	dB	mic gain = 50 dB
.....Equivalent Input Noise	-126	max	dBu	mic gain = 50 dB, $R_s=150\Omega$ 20-20 kHz
.....Common Mode Rejection	60	min	dB	1 kHz, $R_s = 150\Omega$
.....THD+N	0.01	typ	%	mic gain = 40 dB, +4 dBu, 20-20 kHz
.....Phantom Power	15	5%	VDC	disabled in line mode
Tone Controls: Type	Accelerated-Slope			2nd-order Linkwitz-Riley
.....Boost/Cut Range	+6 to full cut (off)	typ	dB	
.....Lo/Mid and Mid/High	300 / 4k	5%	Hz	Separation frequencies
Effects Loop: Type	Active unbalanced			1/4" TS connector
.....Input Impedance	30.1k	min	Ω	1 kHz
.....Output Impedance	300	1%	Ω	1 kHz
.....Maximum Output	+20	min	dBu	load = 10 k Ω , 1 kHz
A/B unbalanced outputs: Type	Active unbalanced; Mono			RCA connectors; (same as A & B)
.....Output Impedance	300	1%	Ω	1 kHz
.....Maximum Output	+20	min	dBu	load = 10 k Ω , 1 kHz
Balanced Outputs: Type	Active balanced			1/4" TRS and XLR connectors
.....Output Imped. (Mic/Line)	51.1 / 150	1%	Ω	1 kHz
.....Max. Output (Mic/Line)	-16 / +24	min	dBu	load = 10 k Ω , 1 kHz
.....SN	90	typ	dB	20-20 kHz, 1 Line Input, unity, +4 dBu
.....THD+N	.0035	typ	%	20-20 kHz, +4 dBu, Line Input, unity
.....Control Feed-through	-80	typ	dB	all front panel level controls @ 1 kHz
Crosstalk	-75 @ 1 kHz	max	dB	re +4 dBu, any channel to any channel
Universal Line Voltage	100-240 VAC, 50/60 Hz		VAC	7 watts
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			(1.8 kg)
Shipping: Size	4.25" x 20.3" x 13.75"			(11 cm x 52 cm x 35 cm)
.....Weight	8 lb			(3.6 kg)
<i>Note: 0 dBu=0.775 Vrms</i>				

Block Diagram

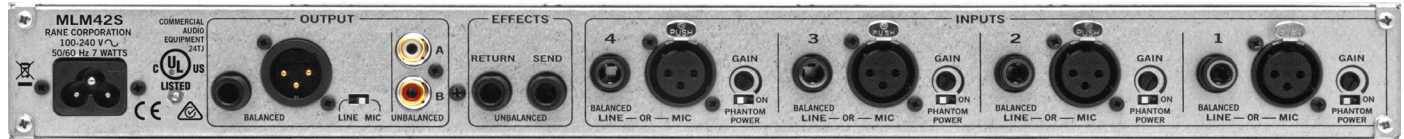


Accelerated-Slope™ Tone Controls

Rane's patented tone control technology produces steeper slopes than normal, thus allowing boost/cut of high and low frequencies without disturbing the critical midband frequencies. The MLM42S features full-cut Tone Controls, allowing much greater contouring than possible with regular controls.



Rear Panel



Architectural Specifications

The mixer shall be a high performance mic/line mixer featuring four balanced, studio-grade microphone inputs. XLR connectors shall be provided for mic-level input. TRS switching jacks shall be provided for line-level input. Use of the TRS jacks shall automatically set the preamplifier gain structure for line-level input and defeat phantom power. Each of the four inputs shall feature input gain control, overload indicator, three-band Accelerated-Slope™ equalizer and a Level control. The mixer shall have a post-mix effects loop with Wet/Dry pan control. A single master Level control shall control two unbalanced and two balanced outputs. Unbalanced output jacks shall be RCA type. Balanced outputs shall employ one XLR and one ¼" TRS jack. Each balanced output shall provide an additional 6 dB of gain and deliver

a minimum signal level of +24 dBu into a 10k ohm load. The balanced outputs shall be capable of operating at mic level with a maximum output of -16 dBu.

XLR inputs shall operate in mic mode with a gain range of +12 dB to +50 dB. Each microphone input shall operate with or without 15 volt phantom power. ¼" TRS inputs shall operate at line-level with a gain range of 0 to 12 dB. If the Line input is inserted, phantom power shall be defeated.

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 entirely constructed from cold-rolled steel.

The unit shall be a Rane MLM42S Mic & Line Mixer.