



**RDL**<sup>®</sup>  
Radio Design Labs

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

## RACK-UP<sup>®</sup> SERIES

### Models RU-MLD4 & RU-MLD4T

### Mic/Line Distribution Amp

#### ANYWHERE YOU NEED...

- Distribution Amplifier with Four Outputs
- Front Panel XLR Input / Output Jacks
- Detachable Input / Output Terminal Blocks
- Switch-selectable Mic or Line Input
- Switch-selectable Mic Gain and Phantom
- Gain-Trim on Input
- Each Output Switch-selectable Mic or Line



The RU-MLD4 is part of the group of RACK-UP products from Radio Design Labs. RACK-UPs feature the advanced circuitry for which RDL products are known, combined with accessible user-friendly controls and displays. The ultra compact design permits high-density installations, with *three* products mounted in a single rack unit. Optional brackets permit mounting a RACK-UP module above, below, or in front of any flat surface!

**APPLICATION:** The RU-MLD4 is an audio distribution amplifier with four outputs. The input and all four outputs may be connected through the front-panel XLR jacks or on the rear panel detachable terminal blocks. The input accepts either a balanced microphone or line level signal. Each of the four outputs provides either a microphone or line level signal. Both the front-panel XLR connectors and the rear-panel terminals are active at all times. The RU-MLD4 may be rack-mounted with the XLR jacks facing forward, or may be reverse-mounted using the RDL RU-FP1 Filler Panel/Reverse Mount Kit.

The audio input is equipped with a rear-panel switch to select between MIC and LINE level. Two additional switches allow setting the MIC input for LO or HI gain and for enabling or disabling standard 24 Vdc phantom. The two microphone gain settings allow the connection of a wide variety of dynamic and condenser microphones. Each output is provided with a separate rear-panel switch to set the associated level to either MIC or LINE. Audio outputs are isolated from each other and may be wired balanced or unbalanced.

Gain trim is provided on a front-panel control. An RDL Dual-led VU meter is provided above the gain trimmer. The meter is calibrated to indicate +4 dBu for outputs set to line level.

The rear panel provides a detachable terminal block and a power input jack to connect 24 Vdc power. The RU-MLD4 audio outputs are active balanced. Each output of the RU-MLD4T is equipped with a studio-quality audio output transformer.

Wherever 1 in by 4 out connectorized mic and line level audio distribution with gain trim is needed to provide superior audio clarity, user adjustments, reliability, compactness and unsurpassed versatility, the RU-MLD4 is the ideal choice. Use the RU-MLD4 combined with other RDL RACK-UP, STICK-ON, TX™, or FLAT-PAK™ series products as part of a complete audio/video system.



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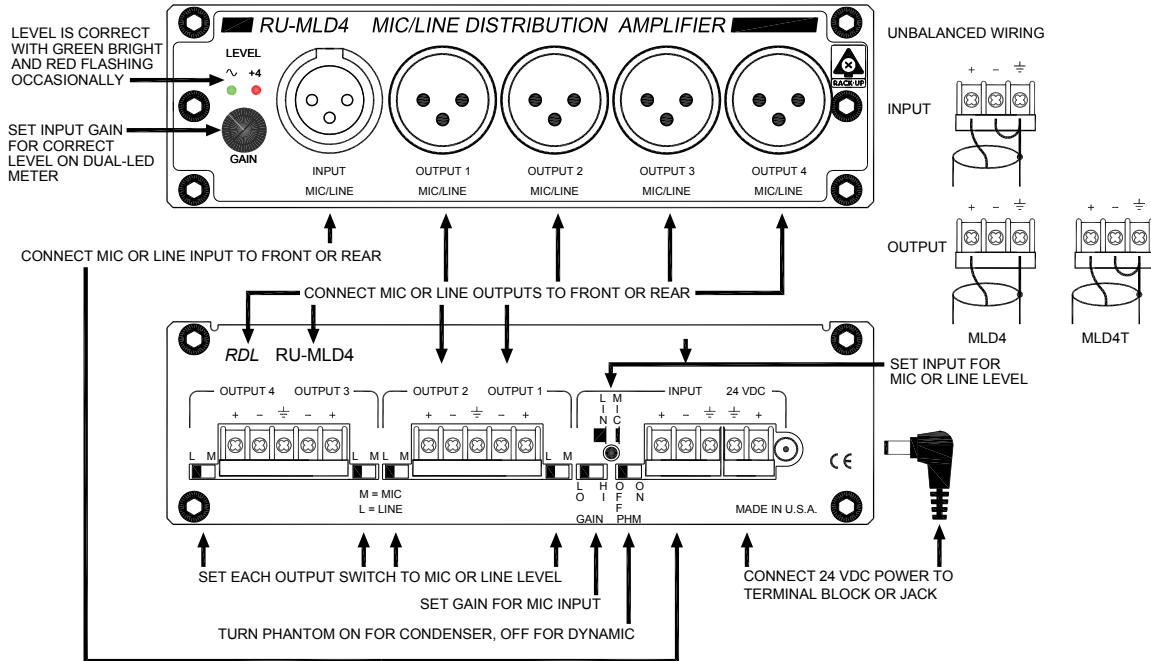
## Model RU-MLD4 & RU-MLD4T

### Mic/Line Distribution Amp

## Installation/Operation



EN55103-1 E1-E5; EN55103-2 E1-E4  
Typical Performance reflects product at publication time exclusive of EMC data, if any, supplied with product. Specifications are subject to change without notice.



### TYPICAL PERFORMANCE

Input:	XLR (3 pin, front panel) and detachable terminal block (rear panel)
Input level (for +4 dBu output):	Switch-selectable (rear panel) <b>MIC</b> (LO or HI gain) or <b>LINE</b>
Mic:	-48 dBu to -3 dBu ( <b>LO GAIN</b> ); -65 dBu to -20 dBu ( <b>HI GAIN</b> )
Line:	-15 dBu to +28 dBu
Input Impedance:	
Mic:	2 kΩ balanced, switchable 24 V phantom (IEC 61938: 2013)
Line:	> 10 kΩ balanced; may be connected unbalanced
Outputs (4):	XLR (3 pin, front panel) and detachable terminal block (rear panel)
Output level:	Switch-selectable (rear panel) <b>MIC</b> (-46 dBu) or <b>LINE</b> (+4 dBu)
Output Impedance:	150 Ω balanced; drives high or low impedance lines
Gain Trim:	Front panel adjustable; one for each channel
Mic <b>LO GAIN</b> :	Off to 52 dB gain
Mic <b>HI GAIN</b> :	Off to 69 dB gain
Line:	Off to 20 dB gain
Frequency Response:	
Mic:	80 Hz to 50 kHz (+/- 0.75 dB); < 10 dB @ 20 Hz (integral high-pass filter)
Line:	15 Hz to 50 kHz (+/- 0.1 dB)
THD+N:	
Mic:	< 0.1% (80 Hz to 20 kHz)
Line:	< 0.005%
CMRR:	> 60 dB (Mic); > 50 dB (Line)
Residual Noise (below +4 dBu <b>LINE</b> output or -45 dBu <b>MIC</b> output):	
Mic 40dB Gain, <b>LO GAIN</b> :	-79 dB (20 Hz to 20 kHz)
Mic 50dB Gain, <b>HI GAIN</b> :	-79 dB (20 Hz to 20 kHz)
Mic 60dB Gain, <b>HI GAIN</b> :	-70 dB (20 Hz to 20 kHz)
Line:	-85 dB (20 Hz to 20 kHz)
Headroom (above +4 dBu <b>LINE</b> output):	> 20 dB
Power Requirement:	24 Vdc @ 90 mA, Ground-referenced