



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

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

## RACK-UP<sup>®</sup> SERIES Model RU-ADA8D Audio Distribution Amplifier

- Stereo Audio Distribution with 8 Outputs
- Mono Audio Distribution with 16 Outputs
- Front-Panel Input Level Trimmers
- Dual-LED VU Meter for Each Input Channel
- Front-Panel Output Level Trimmers
- Inputs and Outputs on Rear Panel Detachable Terminal Blocks
- Exceptional Audio Quality for the Most Demanding Applications



The RU-ADA8D 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-ADA8D is an eight channel stereo audio distribution amplifier with input and output gain adjustments and input level metering. The module may be operated in mono to provide up to sixteen distributed mono signals. The inputs and outputs are connected on rear-panel detachable terminal blocks.

Each of the two line-level inputs accepts either a balanced or an unbalanced signal. Each input is equipped with a front panel INPUT GAIN trimmer. Input signal levels between -14 dBV unbalanced and +9 dBu balanced may be set to the proper operating level as indicated by a dual-LED VU meter. This assures ample headroom at all normal operating levels. The maximum input level is +25 dBu.

A rear-panel switch selects between stereo and mono operation. In the mono position, input A (left) is used to drive all 16 output channels. When the module is used in a monaural system, only input A must be wired.

Audio outputs are isolated from each other and may be wired balanced or unbalanced. Each of the outputs is provided with a front-panel screwdriver adjusted OUTPUT LEVEL control. Relative to a balanced +4 dBu output level, this gain potentiometer allows an adjustment range from -9 dB to +6 dB. Relative to an unbalanced -10 dBV output, each output potentiometer allows an adjustment from -3 dB to +12 dB.

The RU-ADA8D offers exceptional headroom, very low distortion, excellent crosstalk isolation, wide flat frequency response and extremely low noise with very high common-mode signal rejection. It provides exceptional audio performance for the most critical applications in a professional audio environment.

The RU-ADA8D operates from 24 Vdc connected through a rear-panel detachable terminal block.



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# RACK-UP<sup>®</sup> SERIES

## Model RU-ADA8D

### Audio Distribution Amplifier

## Installation/Operation



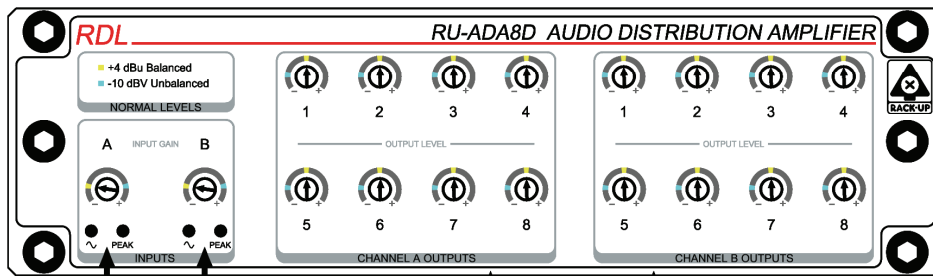
EN55103-1 E1-E5; EN55103-2 E1-E4  
Typical Performance reflects product at publication time exclusive of EMC data, if any, supplied with product. Specifications are subject to change without notice.

PRESET THE LEVEL TRIMMERS FOR THE EXPECTED INPUT SIGNAL LEVEL

+4 dBu BALANCED    -10 dBV UNBALANCED

PRESET THE LEVEL TRIMMERS FOR THE DESIRED OUTPUT SIGNAL LEVEL

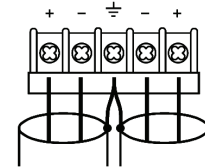
+4 dBu BALANCED    -10 dBV UNBALANCED



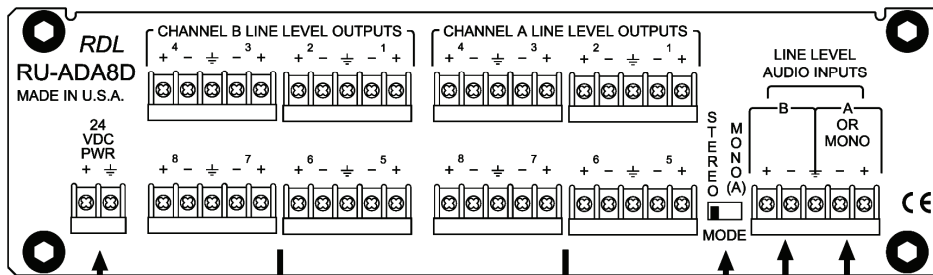
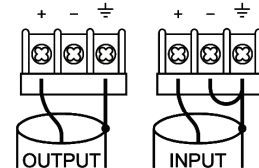
WITH NORMAL INPUT SIGNAL CONNECTED, TRIM INPUT GAINS FOR CORRECT LEVEL ON DUAL-LED METERS (GREEN LED BRIGHT AND RED FLASHING OCCASIONALLY)

WITH PROPER INPUT GAIN ADJUSTED, TRIM OUTPUT GAINS FOR CORRECT INPUT LEVEL AT THE EQUIPMENT CONNECTED TO EACH OF THE OUTPUTS

BALANCED WIRING



UNBALANCED WIRING



CONNECT 24 VDC POWER TO TERMINAL BLOCK

CONNECT CHANNEL B OUTPUTS TO THE RIGHT CHANNEL INPUTS OF STEREO EQUIPMENT

CONNECT CHANNEL A OUTPUTS TO THE LEFT CHANNEL INPUTS OF STEREO EQUIPMENT

CONNECT STEREO SOURCE TO INPUT A (LEFT) AND INPUT B (RIGHT) SET MODE TO STEREO

OR CONNECT A MONO SOURCE TO INPUT A SET MODE TO MONO

NOTE: IF THE MODE SWITCH IS SET TO MONO, THE MONO SOURCE WILL FEED ALL OUTPUTS. CONNECT EACH OUTPUT (CHANNEL A OR B) TO THE INPUT OF MONO EQUIPMENT

### TYPICAL PERFORMANCE

Inputs (2): Stereo (A/left and B/right) on detachable terminal block  
20 kΩ balanced or 10 kΩ unbalanced  
Input Impedance: +4 dBu balanced (nominal), +25 dBu maximum; -10 dBV unbalanced  
Input Level: -5 dB to +15 dB (rel. +4 dBu balanced); -3 dB to +17 dB (rel. -10 dBV unbalanced)  
Input Gain Adjustments (2): Dual-LED VU Meter for Input A and Input B  
Mono mode: Rear-panel switch-selectable (input A feeds all 16 outputs)  
Outputs (16): Stereo, A (8), B (8) on detachable terminal blocks  
Output Impedance: 150 Ω balanced; 75 Ω unbalanced  
Output Level: +4 dBu balanced (nominal), +24 dBu maximum; -10 dBV unbalanced  
Output Level Adjustments (16): -9 dB to +6 dB (rel. +4 dBu, balanced); -3 dB to +12 dB (rel. -10 dBV, unbalanced)

Frequency Response: 10 Hz to 165 kHz (+/- 0.25 dB); 10 Hz to 35 kHz (+/- 0.01 dB)  
THD+N: < 0.0025% (20 Hz to 20 kHz)  
Headroom: > 20 dB (above +4 dBu input or output)  
Noise: < -92 dB (below +4 dBu output, 20 Hz to 20 kHz)  
Crosstalk: < -85 dB (20 Hz to 1 kHz); < -70 dB (1 kHz to 20 kHz)  
CMRR: > 90 dB (100 Hz)  
Power Requirement: GROUND-REFERENCED, 24 Vdc @ 140 mA (idle, nominal), 170 mA (max.) 0° C to 50° C  
Ambient Operating Environment: 5.75" (14.6 cm) W x 1.65" (4.18 cm) H x 3.54" (9.0 cm) D; 3.9" (9.9 cm) D with connectors  
Case dimensions: