



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

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

## STICK-ON<sup>®</sup> SERIES

### Model STA-1M Audio Line Amplifier

#### ANYWHERE YOU NEED...

- A Single-Channel Audio Line Amplifier
- Balanced or Unbalanced Inputs and Outputs
- To Bridge a Line to Avoid Loading
- High/Low or Low/High Impedance Conversion
- Instrumentation Input to Isolate Ground Loops
- To Precisely Match Audio Levels
- Ground-Referenced or Floating Power



#### ***You Need The STA-1M!***

**APPLICATION:** The STA-1M is part of a group of products in the STICK-ON series from Radio Design Labs. The durable adhesives provided with the STA-1M permit permanent or removable mounting. The STA-1M gives you the advantages of balanced/unbalanced configuration conversion, impedance conversion, level boost or cut, with a big *plus...* you can put it where you need it!

The STA-1M allows bridging of any audio line, adjusting the gain, and driving a balanced or unbalanced line. The circuit design allows the input to accept either balanced or unbalanced signals, of either high or low impedance. This is an *instrumentation type* input stage that will amplify the differential input, regardless of ground reference. This offers increased possibilities for eliminating ground loops in audio systems.

The output is capable of driving into either high or low impedance loads. And the output may be connected either balanced or unbalanced. The STA-1M features superior circuitry that produces the unsurpassed pure clarity for which RDL products are known! Some features are:

- Functions as an electronic transformer with isolation and gain (or loss).
- Impeccable audio quality.
- Ultra-low distortion
- Ultra-low noise.
- Output level adjustable for all ranges of conversion between  $-10$  dBV and  $+4$  dBu signals.
- Ample headroom at operating level.
- Full operation in either high or low impedance circuits.
- Outputs short-circuit protected.
- Positive connections via barrier block - no audio connectors to wire.

Whether you need to simply boost a line level, convert between balanced and unbalanced lines or convert between high and low impedances, the STA-1M is today's simple, no-compromise, cost-effective solution! Use the STA-1M combined with other RDL RACK-UP<sup>®</sup>, STICK-ON, TX<sup>™</sup>, or FLAT-PAK<sup>™</sup> series products as part of a complete audio/video system.

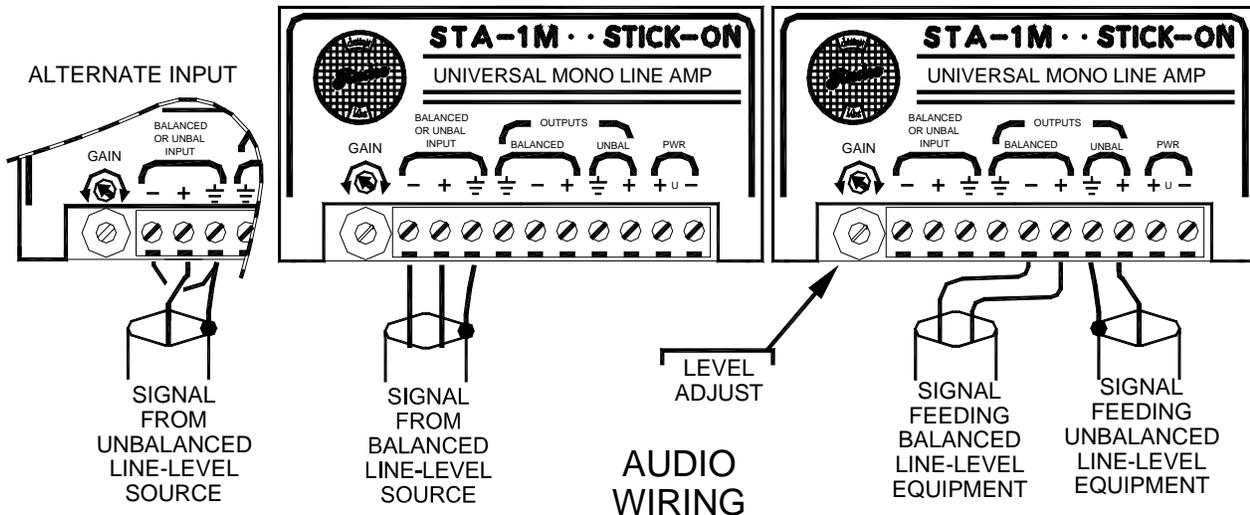
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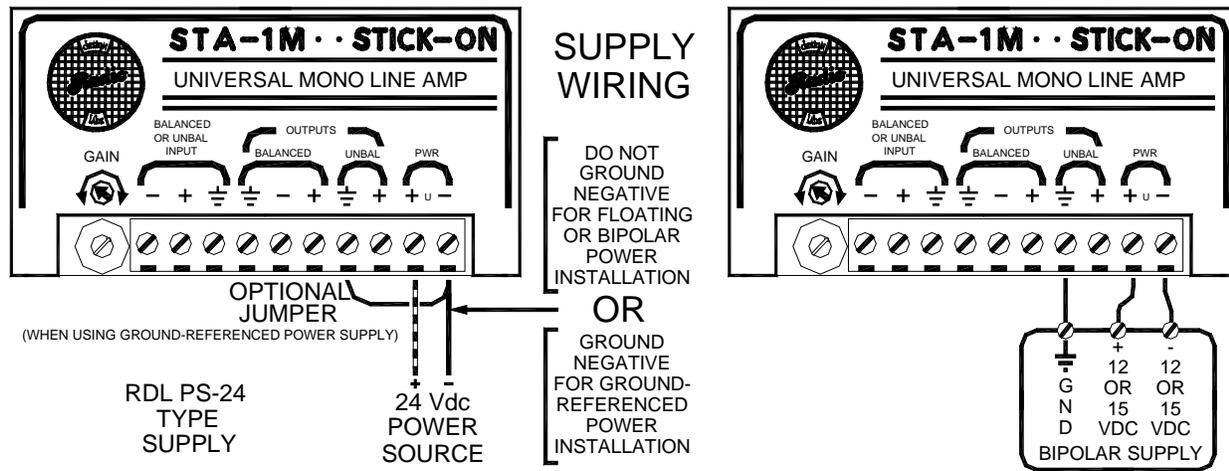
### Audio Line Amplifier

## Installation/Operation

**CE** 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.



IT IS USUAL TO NOT CONNECT BALANCED OUTPUT SHIELD TO REDUCE GROUND LOOPS



### TYPICAL PERFORMANCE

Input: 10 k $\Omega$  balanced or unbalanced bridge

Outputs (2): #1: 150  $\Omega$  balanced (to drive low or high impedance balanced lines)  
#2: 75  $\Omega$  unbalanced (to drive unbalanced lines.)

THD+N: <0.050% (Typical 0.020% @ 1 kHz)

Frequency Response: 10 Hz to 20 kHz (+/- 0.25 dB)

Noise below +4dBu: <75 dB

CMRR: >50 dB at full gain (100 Hz).

Gain: Balanced output: -7 dB to +14 dB  
Unbalanced output: -14 dB to +7 dB

Headroom: >18 dB (above +4dBu)

Power Requirement: 24 to 33 Vdc @ 50 mA, Ground-referenced or Floating

Dimensions: Height: 1.55 in. 3.94 cm  
Width: 3.00 in. 7.62 cm  
Depth: 0.65 in. 1.65 cm