



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

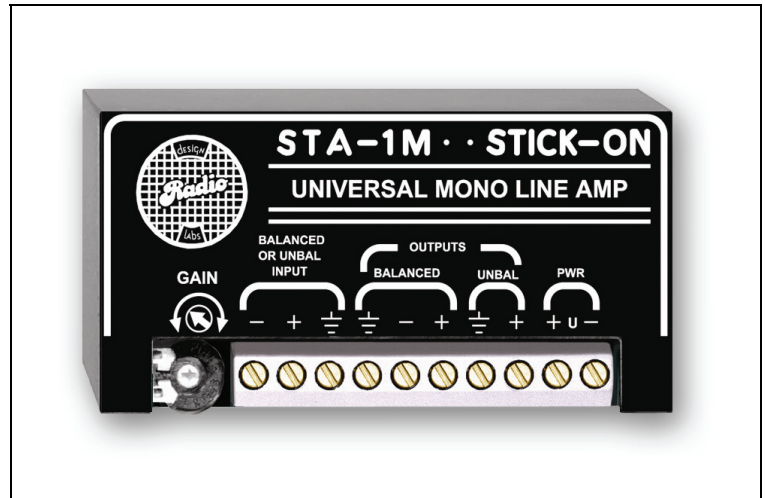
SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

## STICK-ON<sup>®</sup> SERIES

### Model STA-1M

### Audio Line Amplifier

- Single-Channel Audio Line Amplifier
- Balanced or Unbalanced Inputs and Outputs
- Bridge a Line to Avoid Loading
- High to Low Impedance Conversion
- Low to High Impedance Conversion
- Instrumentation Input to Isolate Ground Loops
- Precisely Match Audio Levels
- RDL SupplyFlex™ Power Input Configuration



The STA-1 is part of a group of products in the STICK-ON series from Radio Design Labs. The durable adhesives provided with the STA-1 permit permanent or removable mounting. Numerous available mounting accessories, brackets and rack-mount chassis are optionally available to facilitate any system design. 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! STICK-ONs are designed, built and rated for continuous duty in professional A/V systems.

**APPLICATION:** 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 individually or combine it with other RDL products as part of a complete audio/video system.



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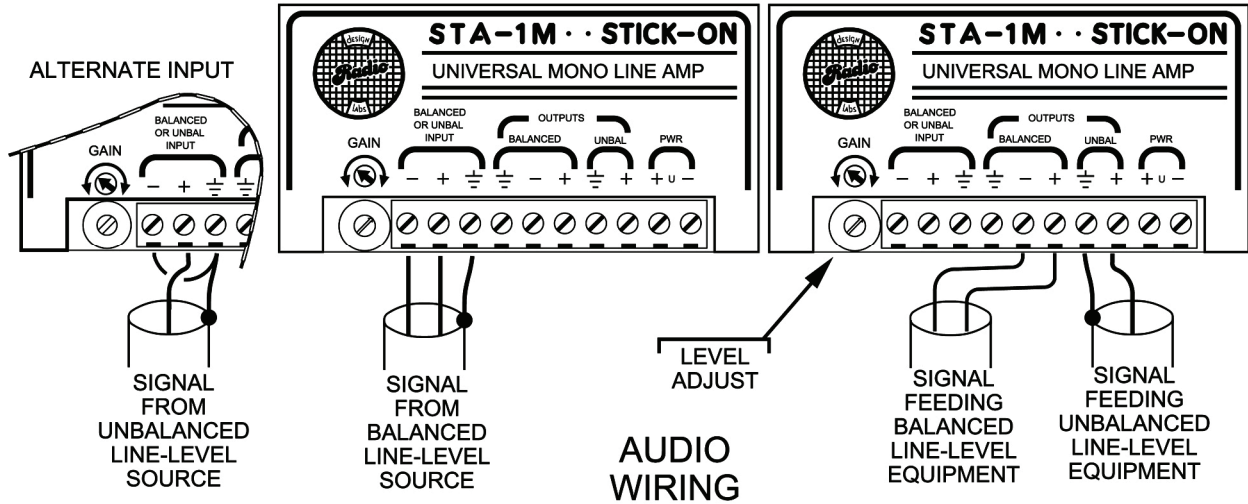
## Model STA-1M

### Audio Line Amplifier

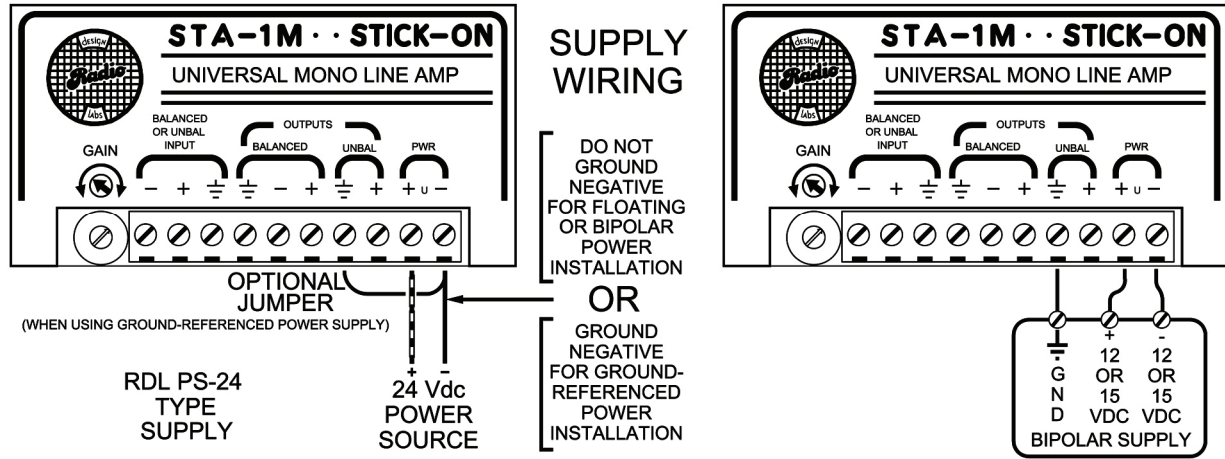
## Installation/Operation



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.



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



### TYPICAL PERFORMANCE

Input: 10 kΩ balanced or unbalanced bridge  
150 Ω balanced to drive low or high-Z; 75 Ω unbalanced

Outputs (2): +4 dBu nominal, (adjustable); unbalanced output 6 dB below balanced line level)

Output Level: < 0.05%

THD+N: 10 Hz to 20 kHz (±0.25 dB)

Frequency Response: > 18 dB

Headroom above +4 dBu: > 50 dB at full gain (50 to 120 Hz)

CMRR: < -75 dB

Noise Below +4dBu: < -75 dB

Gain:

Adjustable per chart below

Input/Output	Min Gain/Max Gain
Unbal. / Balanced	-7 dB / +14 dB
Bal. / Balanced	-7 dB / +14 dB
Bal. / Unbalanced	-14 dB / +7 dB
Unbal. / Unbalanced	-14 dB / +7 dB

0° C to 55° C  
GROUND-REFERENCED or FLOATING, 24 Vdc @ 50 mA

Ambient Operating Environment:  
Power Requirement:

Radio Design Labs Technical Support Centers  
U.S.A. (800) 933-1780, (928) 778-3554; Fax: (928) 778-3506  
Europe [NH Amsterdam] (+31) 20-6238 983; Fax: (+31) 20-6225-287