



Installation and Operation Manual



2 x 6 DA ***Stereo Distribution Amplifier Installation Manual***

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INTRODUCTION

Thank you for your purchase of the tiny TOOLS™ 2 x 6 DA Stereo Distribution Amplifier, which we will refer to through out the manual as the 2 x 6 DA. We're confident this product will give you many years of dependable service. This manual is intended to give you all the information needed to install and operate the product.

SAFETY INFORMATION

Only qualified personnel should install Broadcast Tools® products. Incorrect or inappropriate use and/or installation could result in a hazardous condition.

WHO TO CONTACT FOR HELP

If you have any questions regarding your product or you need assistance, please contact your distributor from whom you purchased this equipment.

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BROADCAST TOOLS® BRAND PRODUCTS!**



CAUTION!

Broadcast Tools® Products, as with any electronic device, can fail without warning. Do not use this product in applications where a life threatening condition could result due to failure.



NOTE:

This manual should be read thoroughly before installation and operation.

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PRODUCT DESCRIPTION

The tiny TOOLS 2 x 6 DA stereo distribution amplifier is equipped with a stereo line level high Z input, which accepts a balanced or unbalanced source with six active balanced low Z output amplifiers. Each output amplifier may be paired for stereo or each output pair may be summed for monaural operation without affecting the stereo separation of the other outputs. Each output amplifier has a front panel recessed level control. Features: Monaural jumpers, removable screw terminals and selectable input gain of -10dbv or +4dbu, eliminating the need for level conversion. The 2 x 6 DA is powered by a surge protected internal bi-polar 15vdc power supply affording superior headroom and high definition audio. The 2 x 6 DA may be set on a desktop, mounted on a wall or up to four units mounted on the RA-1, Rack-Able mounting shelf.

INSTALLATION

Please examine your 2 x 6 DA carefully for any damage that may have been sustained during shipping. If any is noted, please notify the shipper immediately and retain the packaging for inspection by the shipper. The package contains the 2 x 6 DA, 16Vac@600ma wall power transformer and this manual.

Installation of the 2 x 6 DA in **high RF environments** should be performed with care. Shielded cable is suggested for all audio connections. All shields should be tied to the "GND" Ground terminals. The station ground should be connected to the chassis ground screw located on the far right side of the 2 x 6 DA as viewed from the rear. It is recommended that all cables connected to the 2 x 6 DA be looped through ferrite cores to suppress RF. Surge protection with RF filtering such as the Tripp-Lite "ISOBAR 4 or 6" is also suggested for the wall transformer.

Inputs:

Connect your audio source to the 2 x 6 DA inputs, labeled: INPUT "INL- INL+" and "INR- INR+". For unbalanced inputs, install a jumper between the "-" input and GND. Single (mono) inputs may be fed to all output channels by connecting the left and right inputs in parallel.

INSTALLATION

Input Gain: The input gain jumpers JP4-5 set the left channel gain, while JP6-7 set the right channel gain. Follow the silk-screened labels on the PCB for the correct gain settings. The factory setting is +4dBu.

Outputs: Connect each load to the 2 x 6 DA outputs, labeled "OUTPUTS 1L-/1L+, 2L-/2L+ and 3L- /3L+". For unbalanced loads, use the "+" and GND terminals only. Do not connect the "-" terminal to ground. Shields should be tied to the "GND" terminals.

OPERATION

Power:

Insert the power plug into the power jack on the 2 x 6 DA and the wall transformer into the proper AC outlet. Verify that the power LED is lit. Three additional 2 x 6 DA's may be powered by connecting 22-gauge wire between the power screw terminals and following proper polarity.

Operation:

Audio supplied to the INPUT "INL -/INL+" terminals will appear at "OUTPUTS 1L-/1L+, 2L-/2L+ and 3L-/3L+". Audio supplied to the INPUT "INR -/INR+" terminals will appear at "OUTPUTS 1R-/1R+, 2R-/2R+ and 3R-/3R+".

Monaural setting:

Each stereo output has a MONO jumper. Follow the silk-screened labels on the PCB. If the jumper is installed, that output will be combined to monaural. Placing a jumper over JP1 converts output one to mono, JP2 output two and JP3 addresses output three. The factory setting is Stereo. The three stereo outputs operate independently; setting one output pair to MONO has no effect on the other pairs, and does not degrade the integrity of the other stereo outputs.

Each output has a gain adjustment for setting output levels.

SPECIFICATIONS

Input Level	-10dBv to +4dBu nominal
Input Impedance	20K Ω balanced, 10 K Ω unbalanced
Output level	+4dBu nominal, + 24dBu max, @ 600 Ω , balanced
Output Impedance	100 Ω balanced, 47 Ω unbalanced
System Gain	20dB
Frequency Response	20 - 20kHz, +/- 0.1dB
Noise	85dB below nominal output
THD	.005%, any frequency
IMD	.005% (250/7kHz)
TDR	> 100dB
Connectors	Audio Inputs/Outputs connections – Removable screw terminals
Power Requirement	16 Vac, 600 ma, wall transformer, Supplied. Screw terminals for external powering up to three additional 2 x 6 DA's from one wall transformer. (220 Vac 50-60 Hz CE wall transformer OPTIONAL)
Size:	4.20" x 6.00" x 1.55", Painted steel chassis w/ 4 – 6-32 mounting holes.
Weight:	2.0 lb.
Options:	RA-1, Rack Shelf. 1 RU.

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OPERATION

LIMITED WARRANTY

The term “Buyer” as used in this document refers to and includes both (but only) (a) any person or entity who acquires such an item for the purpose of resale to others (i.e., a dealer or distributor of an item), and (b) the first person or entity who acquires such an item for such person’s or entity’s own use.

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APPENDIX A

Functional Diagram

