



## *Installation and Operation Manual*



### **TMT-2** *Twin Match Tool*

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## INTRODUCTION

Thank you for your purchase of the tiny TOOLS™ TMT-2, Twin Match Tool, which we will refer to throughout the manual as the TMT-2. 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.

If you would like more information about Broadcast Tools® products, you may reach us at:

### **Broadcast Tools, Inc.**

131 State Street  
Sedro-Woolley, WA 98284 USA  
Voice: 360 . 854 . 9559  
Fax: 360 . 854 . 9479

Internet Home Page: [www.broadcasttools.com](http://www.broadcasttools.com)  
E-mail: [support@broadcasttools.com](mailto:support@broadcasttools.com)

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**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.

## WEBSITE:

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### PRODUCT DESCRIPTION

The **tiny TOOLS TMT-2** is a twin active unidirectional stereo level-matching interface. The TMT-2 interfaces IHF-compliant, consumer and semi-professional audio gear with professional studio equipment. The TMT-2 is a unidirectional interface providing four separate amplifiers. Each amplifier converts  $-10\text{dbv}$  consumer unbalanced gear to  $+4\text{dbu}$ -balanced outputs and may be configured for an additional  $6\text{db}$  of gain. All four outputs are adjustable from the front panel. Gold plated RCA jacks are provided for unbalanced equipment, while removable screw terminals are supplied for the balanced gear. The TMT-2 is powered by a surge protected internal bi-polar **15vdc power supply** affording **superior headroom and high definition audio**. The TMT-2 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 TMT-2 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 TMT-2,  $16\text{Vac}@600\text{ma}$  wall power transformer and this manual.

Installation of the TMT-2 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 TMT-2 as viewed from the rear. It is recommended that all cables connected to the TMT-2 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 unbalanced stereo audio source to either of the two "Consumer" Inputs.

#### Gain Settings

Computer sound cards frequently use levels that are lower than IHF standards. With this in mind, we recommend that the high gain ( $+6\text{dB}$ ) option should be installed. To perform the change, remove power from the TMT-2, along with the cover. Locate the silk-screened label on the pcb and install the following jumpers for the channels desired:

- Consumer 1 left input "HI-Gain jumper, install Jp-1
- Consumer 1 right input "HI-Gain jumper, install Jp-2
- Consumer 2 left input "HI-Gain jumper, install Jp-4
- Consumer 2 right input "HI-Gain jumper, install Jp-5

Reinstall the TMT-2 cover.

## Monaural mode

In some cases, the user may need to feed a stereo signal from a monaural source. In this case, installing the appropriate jumpers will achieve monaural combining. Locate the silk-screened label on the pcb and install the following jumpers for the channels desired:

- Jumper Jp-3 “MONO” enables amplifier 1
- Jumper Jp-6 “MONO” enables amplifier 2

**Outputs:** Connect the appropriate (either 1 or 2) “PRO-OUTPUT” of the TMT-2 to the inputs of your balanced studio equipment. 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 TMT-2 and the wall transformer into the proper AC outlet. Verify that the power LED is lit.

Each amplifier has a front panel trimmer used to set the desired level. Use a small screwdriver to adjust the trimmers.



### NOTE:

*It may also be necessary to readjust levels after these changes.*

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### DESCRIPTION

### SPECIFICATIONS

Consumer/IHF Input Level	-10dBv Nom, @ 23K W, Hi Gain -16dBv @ 10K $\Omega$
PROfessional Output Level	+4dBu nom, + 24dBu max, @ 600 W
PROfessional Output Impedance	100 $\Omega$ balanced, 47 $\Omega$ unbalanced
System Gain	6 to 26dB
Frequency Response	DC - 20kHz, +/- 0.2dB
Noise	98dB below nom, output
THD	.007%, any frequency
IMD	.009% (250/7kHz)
Connectors	Consumer Inputs – Gold Phono Jacks (RCA) PROfessional Outputs – Removable screw terminals
Power Requirement	16 Vac, 600 ma, transformer, Supplied. (220 Vac 50-60 Hz CE Opt)
Size	4.20" x 6.00" x 1.55", Painted steel chassis w/ 4 – 6-32 mnt holes
Weight	2.0 lb.
Options	RA-1, Rack Shelf. 1 RU.

### 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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#### **Broadcast Tools, Inc.**

131 State Street  
Sedro-Woolley, WA 98284 • USA

360.854.9559 **voice** • 360.854.9479 **fax**  
support@broadcasttools.com **e-mail**  
www.broadcasttools.com **website**

APPENDIX A

Functional Diagram

