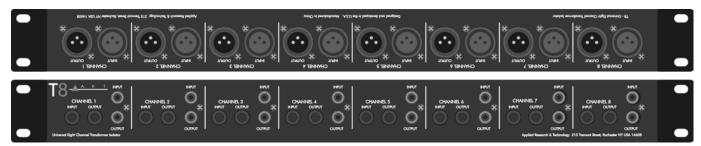


# **Universal Eight Channel Transformer Isolator**



### IMPORTANT SAFETY INSTRUCTION - READ FIRST



This symbol, wherever it appears, alerts you to important operating and maintenance instructions in the accompanying literature. Please Read the manual.

#### Read instructions:

Retain these safety and operating instructions for future reference. Heed all warnings printed here and on the equipment. Follow the operating instructions printed in this user guide.

#### Do not open:

There are no user serviceable parts inside. Refer any service work to qualified technical personnel only.

# Moisture:

To reduce the risk of fire or electrical shock do not expose the unit to rain, moisture or use in damp or wet conditions. Do not place container of liquid on it, which may spill into any openings.

### **Environment:**

Protect from excessive dirt, dust, heat, and vibration when operating and storing. Avoid tobacco ash, drink spillage and smoke, especially that associated with smoke machines.

### Handling:

To prevent damage to the controls and cosmetics avoid rough handling and excessive vibration. Protect the controls from damage during transit. Use adequate padding if you need to ship the unit. To avoid injury to yourself or damage to the equipment take care when lifting, moving or carrying the unit. **Servicing:** 

Refer servicing to qualified technical personnel only.

# INTRODUCTION

Thank you for purchasing the ART T8 Universal Eight Channel Transformer Isolator. This is a rock solid, road-worthly 8 channel transformer isolator. "Hum" in an audio system is often caused by loop effects which act like antennas. These loops can easily pick up a 60Hz (or higher harmonic) hum created by electrical wiring. Typically, these loops are connected via grounds, more commonly called "ground loops". The safest way to eliminate unwanted noise is with the T8.

The T8 is a quality totally passive audio interface that uses eight high performance low distortion transformers to totally separate input and output signal grounds, thereby isolating two systems and reducing hum and ground-loop noise. The T8's audio transformers have an extremely flat and wide frequency response and can handle high signal levels while maintaining an isolated balanced output. This gives the T8 a very clean and neutral sound with a wide variety of signal sources. The transformers are wound for 1:1 unity gain and are designed for use with impedances from 600 Ohms to 100k Ohms.

What further sets the T8 apart from other lesser isolation boxes is its connection versatility. We have provided XLR, ¼" phone, and RCA type phono connections on all inputs and outputs. This allows it to easily fit into virtually any audio system and be the clean patch point between all types of systems. All ¼" and RCA phono jacks are on the front and all XLR jacks are on the rear. You can use any combination and since the jacks are directly paralleled you can also use them as signal taps or as a signal splitter.

The T8's mounting ears are reversible so you can have either the ¼" and RCA phono jacks on the front or the XLRs on the front. This maximizes flexibility in cabling your system. Whether you need an interface between a computer based audio workstation and your monitor system, isolation on long cable runs in a fixed installation, isolation of multiple signal sources from your recording equipment, or in many cases, just a safer connection between two audio systems, the T8 can accommodate.

The 19" 1U black all steel case and its all passive design allow the T8 to provide years of trouble free service in Live Sound, Permanent/Fixed Install, D.J., and virtually any PA application. It is equally valuable in a variety of studio and AV applications. Its full feature set, rugged construction, and high-end specifications make the T8 the obvious choice.

# **APPLICATIONS:**

# LIVE SOUND, D.J.

Long unbalanced cables are more susceptible to picking up hum, Using the T8 to help balance these and eliminate any hum. When DJs set up for different jobs there is a potential to pick up hum due to the differences in house wiring, using a T8 Eliminates the potential for hum.

# MIXERS/FIXED INSTALLS/RECORDING/BROADCAST/VIDEO

Use the T8 to eliminate ground loops when using multiple mixers.

Taking mixer unbalanced sends and achieving true balanced monitor outputs.

Using the T8 between video/broadcast rigs eliminates the potential for hum and loop noise.

### POWER AMPLIFIERS

Hum, ground loop noise can be created between multiple amplifiers. This can be eliminated using the T8 on each of the amplifiers input lines.

### **COMPUTERS**

Using a T8 can eliminate unwanted ground loops created between the computers and your audio input equipment.

You can also use the T8 to balance the unbalanced inputs and outputs from your computers sound card.

# WARRANTY INFORMATION

# **Limited Warranty**

Applied Research and Technology will provide warranty and service for this unit in accordance with the following warrants:

# **Exclusions:**

This warranty does not apply in the event of misuse or abuse of the product or as a result of unauthorized alterations or repairs. This warranty is void if the serial number is altered, defaced, or removed.

A R T reserves the right to make changes in design or make additions to or improvements upon this product without any obligation to install the same on products previously manufactured.

A R T shall not be liable for any consequential damages, including without limitation damages resulting from loss of use. Some states do not allow limitations of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific rights and you may have other rights, which vary, from state to state.

For units purchased outside the United States, an authorized distributor of Applied Research and Technology will provide service.

# SERVICE

The following information is provided in the unlikely event that your unit requires service.

- 1) Be sure that the unit is the cause of the problem. Check to make sure that all cables are connected correctly, and the cables themselves are in working condition.
- 2) If you find the unit to be at fault, write down a complete description of the problem, including how and when the problem occurs.
- 3) Contact our Customer Service Department at (716) 297-2920 for your Return Authorization number or questions regarding technical assistance or repairs. Customer Service hours are 9:00 AM to 5:00 PM Eastern Time, Monday through Friday.
- 4) Pack the unit in its original carton or a reasonable substitute. The packing box is not recommended as a shipping carton. Put the packaged unit in another box for shipping. Print the RA number clearly on the outside of the shipping box. Print your return shipping address on the outside of the box.
- 5) Include with your unit: a return shipping address (we cannot ship to a P.O. Box), a copy of your purchase receipt, a daytime phone number, and a description of the problem.
- 6) Ship your unit (keep your manual!) to: Yorkville Sound 4625 Witmer Industrial Estate, Niagara Falls New York 14305

**Specifications:** 

Frequency Response: 10Hz –50kHz, +/-0.5dB @ +4dBu

THD: 0.01% Typical @ 1kHz, +18dBu, <0.1% @ 100Hz, +24dBu Ref: 0dBu = 0.775VRMS

Channel Separation 90dB typical CMRR: 60dB typical

Phase Error less than 5%, 20Hz – 20kHz

Insertion Loss: 0.4dB @ 100k Ohm Load, 5.5dB @ 600 Ohm Load

Input Connections: XLR female balanced, ¼" TRS balanced, and RCA type phono jacks Output Connection: XLR male balanced, ¼" TRS balanced, and RCA type phono jacks

Power Requirements: Totally Passive

Dimensions: 1.75"H x 19"W x 3.75"D (44.5mm x 482.6mm x 95mm)

Weight: 3.75 lbs. (1.7kg)