TPatch

Eight Point Balanced Patch Bay

Artcessories

User's Manual

▲ART

APPLIED RESEARCH AND TECHNOLOGY

IMPORTANT SAFETY INSTRUCTION – READ FIRST

This symbol, whenever it appears, alerts you to the presence of uninsulated dangerous voltage inside enclosure-voltage that may be sufficient to constitute risk of shock.

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

Read Instructions: Retain 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.

Grounding: Only connect the unit to equipment with properly grounded mains power. Do not defeat the grounding and polarization means of the power cord plug of the connected equipment. Do not remove or tamper with the ground connection on the power cord of the connected equipment.

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: 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.

Installation: Install the unit in accordance with the instructions printed in the user guide.

INTRODUCTION:

Thanks for purchasing Applied Research and Technology's TPatch. The ART TPatch Eight Point Balanced Patch Bay is a deceptively simple, yet surprisingly useful addition to any serious collection of audio equipment.

A patch bay organizes your cables and provides a convenient, easily accessible central location to make all of your audio connections.

It also saves wear and tear on the connectors of your audio equipment because all connections are now made and changed at your patch bay.

Application settings include use in professional or home recording studios, installed audio including PA, AV and home theater, and live sound.

The compact black-anodized all aluminum case and it's passive design allow the TPatch to provide years of trouble free service. It's full feature set and rugged construction make the ART TPatch the obvious choice.

FEATURES:

- Eight points of balanced direct signals
- Four channels of linked input/output pairs
- Switchable half normal and normal modes of operation (with through type connections)
- 1/4-inch TRS phone jack connectors
- Rugged extruded aluminum case
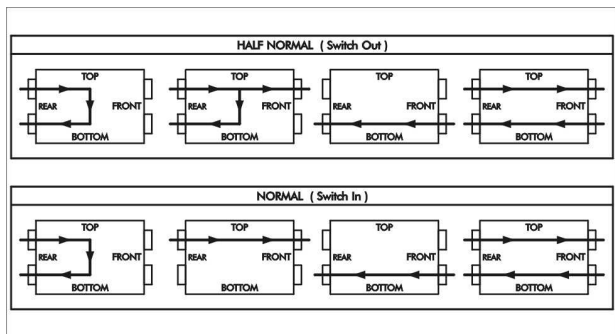
A   **B**   **C**   **D**

USING A PATCH BAY:

Although the ART TPatch, like all patch bays, is conceptually a simple device, there is a lot in the terminology and usage conventions that can potentially cause confusion. Each vertical grouping of two jacks on the front of the unit and the corresponding two jacks and switch on the rear of the unit comprise a module and provides one channel of linked input/output audio connections. For example, the jacks labeled 1 and 5 on the front panel and the jacks labeled 1 and 5 on the rear panel, along with the associated switch, are one module. All four modules are identical and each may be individually configured for Half Normal or Normal operation. Read on to find out what this means.

INPUT   **OUTPUT**
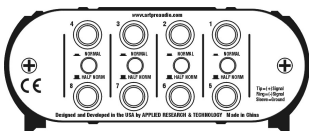
OUTPUT   **INPUT**

All connections start at the rear of the unit. By convention, the top jacks are inputs and are connected to audio sources or sends and the bottom jacks are outputs and are connected to audio destinations or receives (see left diagram above). With no connections at the front of the unit, the vertical pair of rear panel jacks are connected together internally. An audio signal will flow from the top jack to the bottom jack without any patch cords plugged in at the front in what is known as a **normalled** connection, shown in case **A** in the Half Normal and Normal diagrams above.

So far we've connected audio outputs to audio inputs, which we could have done with just cables. But using the jacks on the front of the unit is when things get interesting. The convention on the front of a patch bay is that the top jacks are outputs and the bottom jacks are inputs (see right diagram above). This is just the opposite of the rear connections, but makes sense if you think of signals flowing through the patch bay.

With the rear panel pushbutton in the out position (**Half Norm**), the Half Normal mode is selected (refer to the Half Normal diagram above). This is the patch bay mode most commonly used. In this mode we can plug a cable into the top jack and take out or monitor the signal flowing through the rear jacks by sending it to an amplifier input or a set of headphones. This is shown in case **B**. However, if we plug a cable into the bottom jack, we break the connection between the rear jacks. Thus we can put in or patch a signal that replaces the signal coming into the top rear jack, as shown in case **C**. Finally, we can plug into both front jacks and get two independent **through** signal paths where the original

source goes to a new destination and the original destination gets a new source as shown in case **D**.

With the rear panel pushbutton pushed in (**Normal**), the Normal mode is selected (refer to the Normal diagram above). If you compare the two mode diagrams, you'll notice that they're pretty similar. Only case **B** is different. Now plugging a cable into the **top** jack breaks the connection between the rear jacks just like plugging a cable into the bottom jack does. Plugging a cable into either (or both) jack(s) breaks the normalled connection. All other aspects of the Normal mode are the same as for the Half Normal mode.

A normalled connection is desirable for many applications, but not all. For example, be careful not to connect a signal processor's output and input to the same module. Here a normalled connection would create a feedback loop which is definitely not what you want. Instead, use two separate modules, one for the output and one for the input.

SPECIFICATIONS:

Connectors:	1/4-inch TRS balanced phone jacks
CMRR:	> -90 dB (typical)
Isolation:	> -80 dB (typical)
Dimensions HxWxD (in):	1.85 x 4.6 x 3.9
HxWxD (mm):	47 x 117 x 99
Weight (lbs/kg):	0.84 / 0.38

WARRANTY INFORMATION:

Limited Warranty (USA only)

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

Applied Research and Technology, (ART) warrants to the original purchaser that this product and the components thereof will be free from defects in workmanship and materials for a period of **three** years from the date of purchase. Applied Research and Technology will, without charge, repair or replace, at its option, defective product or component parts upon prepaid delivery to the factory service department or authorized service center, accompanied by proof of purchase date in the form of a valid sales receipt.

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.

ART 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.

ART 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. The warranty terms listed above are only valid within the United States of America. For units purchased outside the United States, an authorized distributor of Applied Research and Technology will provide service. For information on warranty and service policies outside of the U.S., please contact your local distributor.

Please fill in the following information for your reference:

Date of purchase: _____

Purchased from: _____

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 the unit has power supplied, that all cables are connected correctly, and that the cables themselves are in working condition. You may want to consult with your dealer for assistance in troubleshooting or testing your particular configuration.

2. If you believe that the ART unit is at fault, go to www.artproaudio.com. Select "*Support*", then "*Return Authorization Request*" to request a return authorization number.

3. If you are returning the unit for service, pack the unit in its original carton or a reasonable substitute. The original packaging may not be suitable as a shipping carton, so consider putting 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.

4. Include with your unit: a note with the RA number and your contact information, including a return shipping address (we cannot ship to a P.O. box) and a daytime phone number, and a description of the problem, preferably attached to the top of the unit. Also include a copy of your purchase receipt.

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TPATCH

TPAT-5004-101

V1.3