



# TUBE MP



Professional Tube Microphone Preamp

## USER'S GUIDE

## Introduction

Thank you for purchasing the TUBE MP-and congratulations: You now own one of the most sophisticated pieces of audio signal-processing gear. Offering a superb level of sound quality, the TUBE MP's special tube and integrated circuit design combined with a straightforward user interface quickly and easily gives you access to all of its features.

### Features :

- 70dB of Gain
- 12AX7 Tube
- XLR Balanced Input
- 1/4" TS Instrument Input
- Balanced XLR Output
- 1/4" TS Output
- Switchable Phantom Power
- Phase Reverse Switch
- 20dB Gain Switch
- Input Gain Control
- output Level Control
- 10Hz to 20KHz Frequency Response
- >100dB Dynamic Range
- AU Steel Chassis
- Designed & Manufactured in the USA

Fill in the following information for your reference:

Date of purchase: \_\_\_\_\_

Purchased from: \_\_\_\_\_

Serial number: 127- \_\_\_\_\_

This is a great time to fill out the User Registration Card included with your TUBE MP to become a completely informed A R T Artist. Returning the card to us ensures you of becoming the first to know about new A R T products as well as any further developments from A R T.

127-5004-101

## CONNECTIONS

It's easy to interface the TUBE MP with other equipment. All connections are made at the back of the TUBE MP. Standard XLR and 1/4" inputs and outputs make patching simple. Note: For best audio quality, always use high-quality cables.

### Inputs

The TUBE MP provides both an XLR and 1/4" input jack. Use the balanced XLR input for use with a microphone. Audio input as well as phantom power (if needed switchable on and off) is supplied through this jack. Use the unbalanced 1/4" input jack for instrument applications.

XLR pin configuration: pin 1 = gnd pin 2 = Positive (hot), pin 3 = negative.

Do not Use both inputs at the same time.

### Outputs

The XLR output of the TUBE MP is active balanced. You may use it in an unbalanced configuration without harm to the output circuitry. Use the unbalanced 1/4" jack for sending your signal to amps, processors or other unbalanced configurations. Also, both outputs may be used at the same time.

### Power

Insert the supplied 9 Volt AC adapter's plug into the input labeled Pwr, 9VAC on the TUBE MP's back panel.

The TUBE MP is powered by an external 9VAC adapter. Always make sure the output plug is securely plugged into the rear of the TUBE MP, and that the adapter is held firmly in an electrical outlet. Never operate the TUBE MP or AC adapter in the rain or in wet locations. If the AC adapter's cord is ever cut, discontinue use and replace the adapter with a new one. Unplug the adapter when the TUBE MP is not in use. Refer to the label on the adapter or the specifications later in this manual for the appropriate operating voltages.

## Controls, Switches and Indicators:

### Input Control

The input control sets the amount of input Gain of the TUBE MP. Turn the control clockwise to increase gain and counterclockwise to decrease gain. You may control two ranges of gain with this control, +26 to +60dB and +6 to +40dB. Selection of the gain range is made with the +20dB Gain Switch.

### +20dB Gain/Norm Switch

Use the +20dB Gain/Norm switch to set the gain range of the Input control. When the switch is out, the TUBE MP operates in Normal mode. Depressing the switch adds 20dB of gain. This mode is indicated by the labeling in red and corresponds directly to the Input control's red gain range labeling. For microphone applications, where more level is needed, push the switch in.

### P-Pwr +48V/Out Switch

Use the TUBE MP's phantom power to supply power to all microphones requiring +48V phantom power.

The TUBE MP's Phantom power is engaged and disengaged with this switch. Phantom power is applied to pins 2 and 3 of the XLR Input jack when this switch is pushed in. To disengage phantom power, position the switch in the out position.  
Power Phase Reverse/Norm Switch

### Phase Reverse/Norm Switch

To set the phase of the TUBE MP's output signal, use this switch. When the switch is in the Out position the output signal is normal. Depressing the switch reverses the phase of the output signal.

In multi-microphone applications, mic placement can affect the phase of the signals. If your sound is "thin" or "out of position," reverse the phase to correct the problem.

### Output Control

The output control sets the output level of the TUBE MP. When the control is fully counterclockwise the output level of the TUBE MP is zero. Turning the control clockwise increases the level of the

output to a maximum of +10dB of gain. This gain is in addition to the existing input gain.

### Power/Peak L.E.D.

When power is applied to the TUBE MP the Power/Peak L.E.D. lights green. This L.E.D. also serves as the signal clip indicator. If too much signal is present this L.E.D. lights red. If the L.E.D. is constantly lit, reduce the signal level with the Input Control. The clip L.E.D. is positioned at the tube's output in the circuitry and lights when a level 6dB below hard clipping dB is reached.

## Product Description

A RT's TUBE MP circuitry is a hybrid design utilizing the latest and best solid state and tube technology. Using a transformerless design throughout the TUBE MP maintains exceptional signal integrity and extremely low noise. The active balanced input utilizes a hybrid multiple paired transistor/opamp design providing extremely low noise and excellent CMRR. The instrument input has a high impedance preventing the loading of any device connected to it. Phantom power is derived from the incoming AC voltage. The XLR output is active balanced and the 1/4" output is unbalanced with a 300 ohm impedance.

## Applications:

The main application of the TUBE MP is a microphone preamplifier. Plug any microphone directly into either input and set the Input and Output controls to provide a healthy level into the next stage of your system.

Use the TUBE MP as an acoustic or piezo pickup preamplifier to run directly into a console, amplifier, signal processor or recorder.

You may use the TUBE MP to interface any instrument directly to a live or recording console's line input, amplifier, signal processor or recorder.

The TUBE MP may also be used as a direct box.

## A R T TUBE MP Specifications

Dimensions	5.0"H X 5.5"W X 2.0"H
Weight	1.5 Lbs
Input Connections	XLR (balanced) 1/4"TS
Output Connections	XLR (balanced). 1/4"TS
Input Impedance XLR, 1/4"	2K ohms, 840K ohms
Output Impedance XLR, 1/4"	600 ohms, 300 ohms
Maximum Input Level, XLR	+14dBu
Maximum Input Level, 1/4"	+22dBu
Maximum Output Level, XLR	+28dBu
Maximum Output Level, 1/4"	+22dBu
CMRR	>75dB (typical @ 1KHz)
Frequency Response	10Hz to 20KHz (+0, -1dB)
Dynamic Range	> 100dB (20-20KHz)
Total Harmonic Distortion (THD)	<0.1% (typical)
Maximum Gains	
XLR to XLR	70dB (typical)
1/4" to 1/4"	54dB (typical)
XLR to 1/4"	64dB (typical)
1/4" to XLR	60dB (typical)
Equivalent Input Noise (EIN)	
XLR to XLR	-129dBu ('A' weighted)
1/4" to 1/4"	-105dBu ('A' weighted)
Power Requirements	9 Volts A.C. @ 700ma (typ)

A R T retains a policy of constant product improvement. Therefore, specifications are subject to change without notice.

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.

Applied Research and Technology, Inc.  
215 Tremont Street  
Rochester, NY 14608

716/436-2720, 716/436-3942 (FAX), <http://www.artroch.com>

## WARRANTY & SERVICE INFORMATION

### LIMITED WARRANTY

Warranty service for this unit will be provided by Applied Research & Technology, Inc. in accordance with the following warrant statement.

Applied Research & Technology, Inc. (A R T) 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 one year from the date of purchase. Applied Research & Technology, Inc. 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.

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 limitation 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 also have other rights which vary from state to state.

For units purchased outside the United States, service will be provided by an authorized distributor of Applied Research and Technology, Inc.

## Service

The following information is provided in the unlikely event that your unit requires service. Use this procedure to return units in the United States only. For service outside the United States, please contact your authorized A R T distributor.

- 1) Be sure that the unit is the cause of the problem. Check to make sure the unit has power supplied, 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 description of the problem, including how and when the problem occurs.
- 3) Call A R T's Customer Service Department to obtain a Return Authorization (RA) number.
- 4) Pack the unit in its original carton or a reasonable substitute. The packing box is not recommended for a shipping carton. Put the packaged unit in another box for shipping. Print the RA number clearly under the address.
- 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 the unit to:  
APPLIED RESEARCH AND TECHNOLOGY, INC.  
215 TREMONT STREET  
ROCHESTER, NY 14608  
ATTN: REPAIR DEPARTMENT  
RA # \_\_\_\_\_
- 7) Contact our customer service department at 716/436-2720 for your Return Authorization number or questions regarding repairs. Customer Service hours are 9:00 AM to 6:00 PM Eastern Time, Monday through Friday.

## Additional Information

If you are planning to purchase additional equipment for your audio needs, please consider the following A R T Products.

### Recording/ Live Sound:

MR-1, Personal Reverb Processor  
Tube MP, Personal Microphone Preamplifier  
MDM-8L, Eight channel compressor/limiter  
Pro Gate, Eight channel programmable Noise Gate  
SC-2, two channel compressor/limiter/gate  
MDC-2001, Stereo dynamics processor  
FXR and FXR Elite (II), Two channel Digital multi-effects processors  
Effects Network, Digital Dedicated and multi-effects processor  
Multiverb Alpha, Digital multi-effects processor  
HD-15, Two channel 15 band EQ  
HD-31, 31 band EQ  
Pro MP, Professional two channel microphone preamp

### Instrument Applications:

XTREME, Personal guitar processor with digital effects  
DST-4, Programmable guitar preamp with digital effects  
Power Plant, Studio guitar preamp  
DST 8080, 80 watt/ channel powered guitar preamp with effects  
The Acoustic, Personal acoustic guitar processor with digital effects  
SGX-2000, Analog and digital preamp/ processor for guitar  
SGX-Nightbass, Analog and digital preamp/ processor for guitar  
ECC, Guitar floor processor  
BCC, Bass floor processor

### MIDI:

X-15, MIDI foot controller with two expression pedals  
X-12, MIDI foot controller with optional Power Pedal controller

For a full line catalog, write, call in, or email us to request one. For up to date information on new products send in your User Registration card NOW!