



OWNER'S MANUAL

α **MIctube** **STEREO TUBE PREAMP**



www.altoproaudio.com
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English

IMPORTANT SAFETY INSTRUCTION



TO REDUCE THE RISK OF ELECTRIC SHOCK PLEASE DO NOT REMOVE THE COVER OR THE BACK PANEL OF THIS EQUIPMENT. THERE ARE NO PARTS NEEDED BY USER INSIDE THE EQUIPMENT. FOR SERVICE, PLEASE CONTACT QUALIFIED SERVICE CENTERS.

 This symbol, wherever used, alerts you to the presence of un-insulated and dangerous voltages within the product enclosure. These are voltages that may be sufficient to constitute the risk of electric shock or death.

 This symbol, wherever used, alerts you to important operating and maintenance instructions. Please read.

- ⊕ Protective Ground Terminal
- ~ AC mains (Alternating Current)
- ⚡ Hazardous Live Terminal

ON: Denotes the product is turned on.
OFF: Denotes the product is turned off.

CAUTION

Describes precautions that should be observed to prevent damage to the product.

1. Read this Manual carefully before operation.
2. Keep this Manual in a safe place.
3. Be aware of all warnings reported with this symbol. 
4. Keep this Equipment away from water and moisture.
5. Clean it only with dry cloth. Do not use solvent or other chemicals.
6. Do not damp or cover any cooling opening. Install the equipment only in accordance with the Manufacturer's instructions.
7. Power Cords are designed for your safety. Do not remove Ground connections! If the plug does not fit your AC outlet, seek advice from a qualified electrician. Protect the power cord and plug from any physical stress to avoid risk of electric shock. Do not place heavy objects on the power cord. This could cause electric shock or fire.
8. Unplug this equipment when unused for long periods of time or during a storm.
9. Refer all service to qualified service personnel only. Do not perform any servicing other than those instructions contained within the User's Manual.
10. To prevent fire and damage to the product, use only the recommended fuse type as indicated in this manual. Do not short-circuit the fuse holder. Before replacing the fuse, make sure that the product is OFF and disconnected from the AC outlet.

WARNING

To reduce the risk of electric shock and fire, do not expose this equipment to moisture or rain.



Dispose of this product should not be placed in municipal waste and should be separate collection.

11. Move this Equipment only with a cart, stand, tripod, or bracket, specified by the manufacturer, or sold with the Equipment. When a cart is used, use caution when moving the cart / equipment combination to avoid possible injury from tip-over. 

12. Permanent hearing loss may be caused by exposure to \ extremely high noise levels. The US. Government's Occupational Safety and Health Administration (OSHA) has specified the permissible exposure to noise level. These are shown in the following chart:

HOURS X DAY	SPL	EXAMPLE
8	90	Small gig
6	92	train
4	95	Subway train
3	97	High level desktop monitors
2	100	Classic music concert
1,5	102	
1	105	
0,5	110	
0,25 or less	115	Rock concert

According to OSHA, an exposure to high SPL in excess of these limits may result in the loss of heat. To avoid the potential damage of heat, it is recommended that Personnel exposed to equipment capable of generating high SPL use hearing protection while such equipment is under operation.

The apparatus shall be connected to a mains socket outlet with a protective earthing connection.

The mains plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.

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1. INTRODUCTION

Thank you for your purchasing the ▲LTO α MICtube preamplifier.

Your α MICtube is an extremely musical and flexible Stereo Microphone Preamplifier which is based on many years of experience of ▲LTO Engineers in tube technology and it is used all over the world in recording studios, live sound systems as well as in broadcast and television studios. α MICtube is just one of the many ▲LTO products that a talented, multinational Team of Audio Engineers and Musicians have developed with their great passion for Music.

Enjoy your α MICtube and make sure to read this Manual carefully before operation!

2. FEATURES

- ▲ Half rack space
- ▲ Robust and Compact design
- ▲ Dual Servo Microphone Preamplifier
- ▲ 20 dB PAD
- ▲ +48V phantom power
- ▲ Phase Reverse
- ▲ 8-Digit Output Level meter
- ▲ 12A X 7WA Low Noise Tubes
- ▲ 1/4", high Z input on the front panel for instrument preamplification
- ▲ Output section includes XLR and 1/4" connectors for driving two separate signal path
- ▲ High quality and fidelity components
- ▲ SMD Technology for top performance
- ▲ Manufactured under QS9000, VDA6.1 certified management system



3. CONTROL ELEMENTS

Front Panel:

1 Power LED

It will light-up when the unit is connected to an AC outlet.

2 Output Level Display LEDs (CHANNEL 1 & 2)

It informs you about the output gain of Channel 1 & 2. For optimal operation you should visualize the signal from -2 dB to 0 dB. If you operate at a low output level (-24 dB), you will experience a high noise level while operating at levels higher than +6 dB. It will saturate the output stage and produce unwanted distortion.

3 Phantom Power Switch

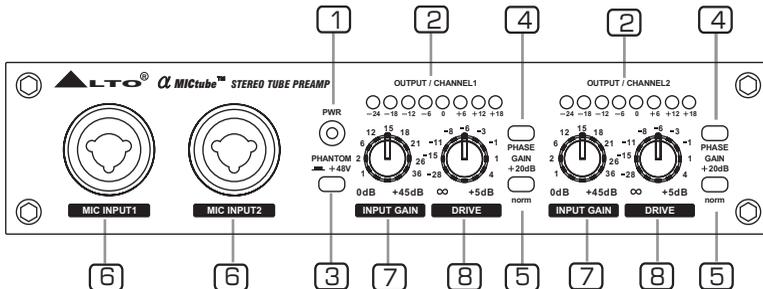
This switch activates the +48 volts phantom power to supply condenser microphones and/or any other device requiring phantom power. The +48V is applied both to the positive (pin2) and negative inputs (pin3) of the XLR connector:

XLR Connector	Phantom Power Supply
PIN (Ground)	GND
PIN (Positive)	+48V
PIN (Negative)	+48V

⚠Caution: Please make sure that you are using an appropriate condenser microphone before you activate this switch to supply the +48V phantom power. Read the microphone operating instructions. Some condenser microphones might need another type of power supply and old ribbon microphones maybe be damaged by the +48V voltage.

4 Phase Reverse Switch

These two switches will reverse the audio signal's phase by 180°. Under normal operation, there is no need to use these switches. However, in some cases, it might be necessary, for example: the inversion of the pins of the XLR connector may be necessary to alter the audio phase of two link microphones to compensate for phase cancellation. It may be required that the wiring of a cable's XLR connector be switched to successfully utilize Phantom power:





3. CONTROL ELEMENTS

5 +20 dB PAD

A +20 dB PAD is available on each channel to attenuate the incoming signal level to provide increased "headroom" for the operator. It can be used with high output devices such as electric guitars.

6 COMBO Microphone (XLR) and Instrument (1/4 inch) input

Each channel of your α MICtube has a separate Combo XLR 1/4" connector on the front of the Unit for input signals from MIC XLR or instrument 1/4" input.

7 Input Gain Control (0 dB to +45 dB)

This control sets the amount of boost to the signal being processed by your α MICtube. You can use this control to adapt your α MICtube to either home recording level (-10 dBV) or professional level (+4 dBu). Should the Gain be too low, the effect of the tube becomes less audible and the S/N (Signal to Noise) ratio deteriorates. In general, dynamic microphones and musical instruments without a built-in preamplifier will require more gain than condenser microphones and instruments with a built-in preamplifier. If you require a higher signal out of the α MICtube for a higher recording level, you can turn up the gain and you will get all the signal that you need. If you want to obtain the best possible S/N (Signal to Noise) ratio and, as a consequence, a very transparent sound, watch up the 8-Digit Output Level Meter.

8 Drive Control (- ∞ dB to +5 dB)

You can achieve quite dramatic effects with this control depending on the settings applied. If you want to "warm-up" the sound, you should apply a lower setting. This setting can be used for microphones and for electric bass. The resulting sound is sweeter and richer than the original. An over-driven signal can be achieved by significantly. If you raise significantly the level of the Drive control, you will obtain a much over-driven signal. This over-driven tube effect will give harmonicas a real blues touch and it is also extremely useful in providing cool guitar sounds. The possibilities of the Drive control of your α MICtube are really up to your imagination.

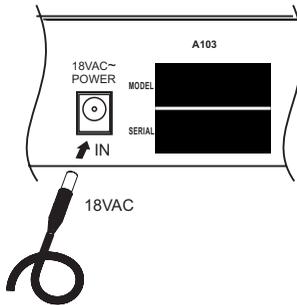
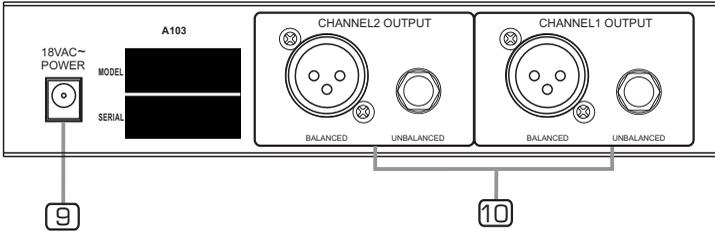


3. CONTROL ELEMENTS

Rear Panel

9 Power Supply Connection

Please use the 18 VAC AC/AC Adaptor provided to connect your *α* MICtube. You can follow the illustration in detail.



10 Analogue Inputs/Outputs

The Output XLR Connector is servo balanced and operates at +4 dBu. The Output 1/4" Phone jack is unbalanced and operates at -10 dBv.



4. APPLICATIONS

This section includes some very useful tips for the applications of your α MICtube Stereo Microphone Preamp. Please read it carefully to get the most out of your α MICtube.

5.1 The α MICtube as A Microphone Preamp

It is the PRINCIPAL application for your α MICtube. Before operation, we recommend that you study the functions of the unit first as described in this Manual. The high gain factors (+30 dB) provided by the microphone preamp can produce extremely high output levels which may damage other devices connected to the unit. So you should turn down all the level controls beforehand, or you can press the -20 dB PAD (5) to attenuate the incoming signal level about 20 dB. At this point you can hook up a microphone to the XLR and 1/4" COMBO Input (6), using either the jack or XLR output connectors. Now, power up the unit; if you wish to use a condenser MIC requiring +48V phantom power, please press the Phantom Power Switch (3) (to avoid electric damage, please read Control Elements "Phantom Power Switch" carefully). After that, please adjust your Input Gain Control and Drive Control to get the best result.

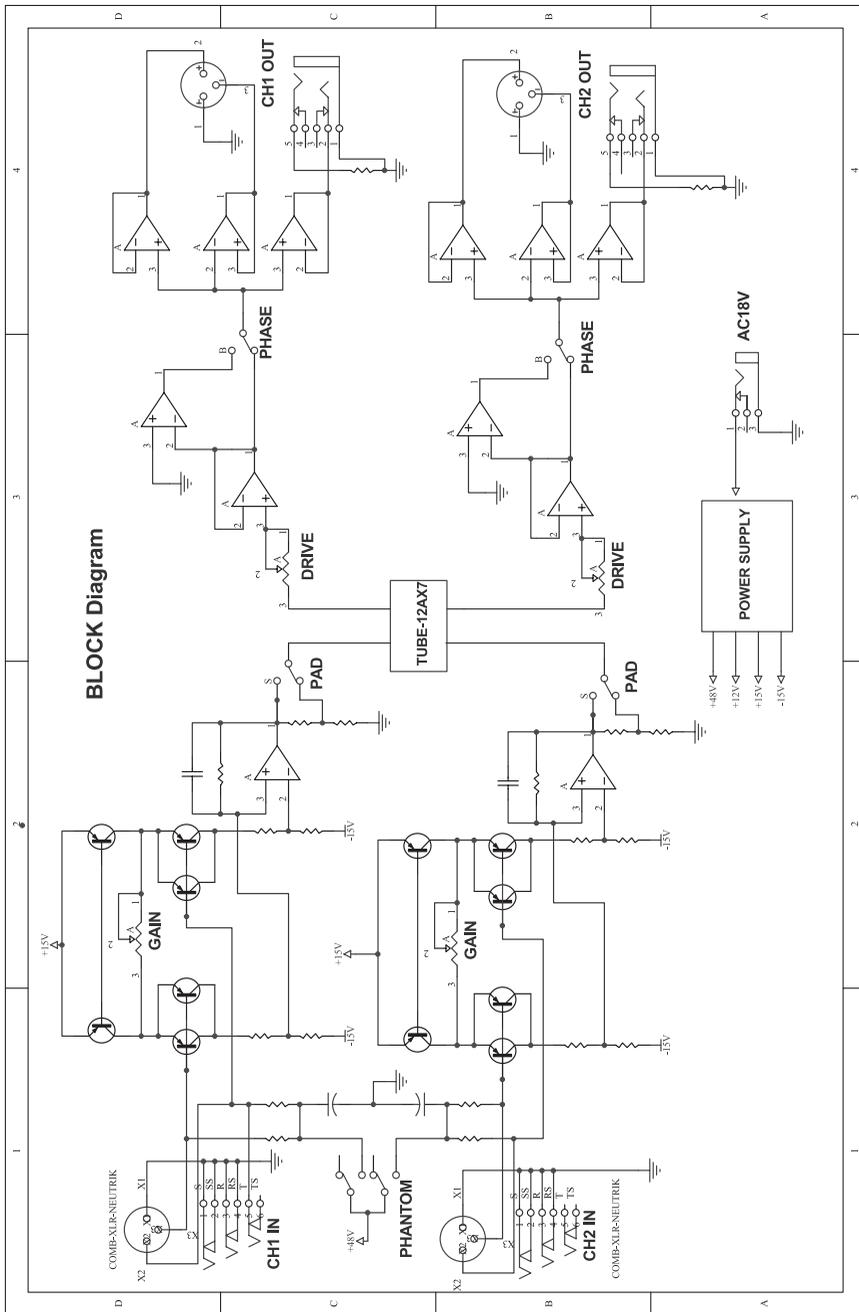
5.2 The α MICtube as A Direct-Injection Box (DI Box)

When audio signals produced by instruments such as guitars, keyboards, etc. are transported over long unbalanced lines, the resulting quality may be affected by Hum or other noises induced in the cable. DI Box (Direct injection box) is used to solve this problem: A DI Box converts the unbalanced signal coming from the instrument into a balanced signal. Using the α MICtube as a Stereo DI box is very easy. Simply connect the line output of your instrument to the XLR and 1/4" TRS COMBO Input on the front panel of your α MICtube, then use its balanced output to send the balanced signal to the next equipment in the chain.

5.3 The α MICtube as a Level Translator

Semi-professional equipment in a home recording system are normally operated with a nominal level of 10 dBV, while the level used in studios and other professional application is 0 dBu or +5 dBu. So, when you connect devices with different levels to each other, you will need to adapt the different levels. Your α MICtube can be used to solve this problem. The Input Gain control allows you to increase or decrease the input signal level by as much as +45 dB.

5. BLOCK DIAGRAM



6. TECHNICAL SPECIFICATION

Input

XLR Impedance	2.2 kOhms
1/4" High Z	1M Ohms
Connectors	Neutrik™ Combo

Output

XLR Balanced	40 Ohms
1/4" Unbalanced	40 Ohms

Panel Controls

Tube Drive	-∞ dB to +5 dB
Gain	0 dB to +45 dB
Phase Reverse	
20 dB Pad	
+48V Phantom Power	

Performance

THD + Noise	<0.3%
Signal To Noise	>90 dB
Amplifier Type	Dual Servo

Meter

8-Digit LED	-24 dBu to +18 dBu
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Physical

Weight	1.37 Kg
Dimension	199(W)x153(D)x45(H) mm

Power Supply

Type	Servo controlled, stabilized
Input	18 VAC
Power	14 Watts
Transformer	External Wall Mount

7. WARRANTY

1. WARRANTY REGISTRATION CARD

To obtain Warranty Service, the buyer should first fill out and return the enclosed Warranty Registration Card within 10 days of the Purchase Date.

All the information presented in this Warranty Registration Card gives the manufacturer a better understanding of the sales status, so as to provide a more effective and efficient after-sales warranty service. Please fill out all the information carefully and genuinely, miswriting or absence of this card will void your warranty service.

2. RETURN NOTICE

- 2.1 In case of return for any warranty service, please make sure that the product is well packed in its original shipping carton, and it can protect your unit from any other extra damage.
- 2.2 Please provide a copy of your sales receipt or other proof of purchase with the returned machine, and give detail information about your return address and contact telephone number.
- 2.3 A brief description of the defect will be appreciated.
- 2.4 Please prepay all the costs involved in the return shipping, handling and insurance.

3. TERMS AND CONDITIONS

- 3.1 ▲LTO warrants that this product will be free from any defects in materials and/or workmanship for a period of 1 year from the purchase date if you have completed the Warranty Registration Card in time.
- 3.2 The warranty service is only available to the original consumer, who purchased this product directly from the retail dealer, and it can not be transferred.
- 3.3 During the warranty service, ▲LTO may repair or replace this product at its own option at no charge to you for parts or for labor in accordance with the right side of this limited warranty.
- 3.4 This warranty does not apply to the damages to this product that occurred as the following conditions:
 - Instead of operating in accordance with the user's manual thoroughly, any abuse or misuse of this product.
 - Normal tear and wear.
 - The product has been altered or modified in any way.
 - Damage which may have been caused either directly or indirectly by another product / force / etc.
 - Abnormal service or repairing by anyone other than the qualified personnel or technician.

And in such cases, all the expenses will be charged to the buyer.

- 3.5 In no event shall ▲LTO be liable for any incidental or consequential damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitation may not apply to you.
- 3.6 This warranty gives you the specific rights, and these rights are compatible with the state laws, you may also have other statutory rights that may vary from state to state.

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