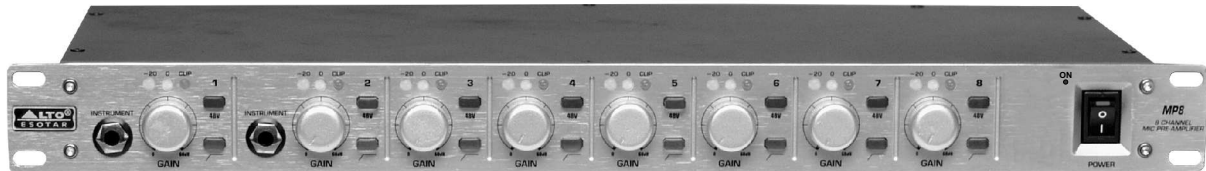


MP8

User's Manual

EIGHT CHANNELS MICROPHONE/
INSTRUMENT PREAMPLIFIER



www.altoproaudio.com

Version 1.3 Oct. 2006

— English —

SAFETY RELATED SYMBOLS



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.

WARNING

Describes precautions that should be observed to prevent the possibility of death or injury to the user.

CAUTION

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



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

WARNING

• Power Supply

Ensure that the mains source voltage (AC outlet) matches the voltage rating of the product. Failure to do so could result in damage to the product and possibly the user.

Unplug the product before electrical storms occur and when unused for long periods of time to reduce the risk of electric shock or fire.

• External Connection

Always use proper ready-made insulated mains cabling (power cord). Failure to do so could result in shock/death or fire. If in doubt, seek advice from a registered electrician.

• Do Not Remove Any Covers

Within the product are areas where high voltages may present. To reduce the risk of electric shock do not remove any covers unless the AC mains power cord is removed.

Covers should be removed by qualified service personnel only.

No user serviceable parts inside.

• Fuse

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.

• Protective Ground

Before turning the product ON, make sure that it is connected to Ground. This is to prevent the risk of electric shock.

Never cut internal or external Ground wires. Likewise, never remove Ground wiring from the Protective Ground Terminal.

• Operating Conditions

Always install in accordance with the manufacturer's instructions.

To avoid the risk of electric shock and damage, do not subject this product to any liquid/rain or moisture. Do not use this product when in close proximity to water.

Do not install this product near any direct heat source.

Do not block areas of ventilation. Failure to do so could result in fire.

Keep product away from naked flames.

IMPORTANT SAFETY INSTRUCTIONS

Read these instructions

Follow all instructions

Keep these instructions. Do not discard.

Heed all warnings.

Only use attachments/accessories specified by the manufacturer.

• Power Cord and Plug

Do not tamper with the power cord or plug. These 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.

• Cleaning

When required, either blow off dust from the product or use a dry cloth.

Do not use any solvents such as Benzol or Alcohol. For safety, keep product clean and free from dust.

• Servicing

Refer all servicing to qualified service personnel only.

Do not perform any servicing other than those instructions contained within the User's Manual.

PREFACE

Thank you for choosing ▲LTO MP8 Eight Channel Microphone/Instrument Pre-amplifier and thanks for choosing one of the results of ▲LTO AUDIO TEAM job and research.

For our ▲LTO AUDIO TEAM, music and sound are more than a job...is first of all passion and let us say our obsession! We have been designing professional audio products for a long time in cooperation with some of the major brands in the world in the audio field.

The ▲LTO line presents unparalleled analogue and digital products made by Musicians for Musicians in our R&D centers in Italy, Netherlands, United Kingdom and Taiwan. The core of our digital audio products is a sophisticated Software Team for the last 7 years.

Following this idea we create our products and we will create the new ones! From our side, we guarantee you and we will guarantee you also in future the best quality, the best fruits of our continuous researches and the best prices.

Nothing else to add, but that we would like to thank all the people that made the MP8 Eight Channel Micro phone/ Instrument Pre-amplifier, and thank our designers and all the ▲LTO staff, people who make possible the realization of products containing our idea of music and sound and are ready to support you , our customers, in the best way, conscious that you are our best richness.

Thank you very much

▲LTO AUDIO TEAM

TABLE OF CONTENTS

1. INTRODUCTION.....	4
2. FEATURES.....	4
3. CONTROL ELEMENTS.....	4
4. INSTALLATION AND CONNECTION.....	6
5. BLOCK DIAGRAM.....	8
6. TECHNICAL SPECIFICATION.....	9
7. WARRANTY.....	10

1. INTRODUCTION

MP8 eight channels microphone/ instrument preamplifier has been designed and constructed using advanced technology to provide its user crystalline audio reproduction for an infinite period of time, which is ideal for professional recording applications and sound installs. These first 2 channels of our MP8 include high gain mic /line input with an integrated DI box feature. The high-quality components and the carefully designed circuits ensure excellent audio performance and an extremely linear frequency response, giving crystal-clear sound in the high range and an up-front, full-bodied bottom end. This peramplifier guarantees total reliability and a trouble-free use even in the most demanding conditions. We believe the MP8 not only look great, but provide a perfect performance, what you get is unprecedented performance at an incredibly attractive price.

2. FEATURES

- Ultra-Wide Dynamic Range
- Low-Noise Operating Levels
- 48V Phantom Power on Every Channel
- Instrument Input on Channels One and Two
- It has a 25-PIN SUB-D Connector Analog Outputs

3. CONTROL ELEMENTS

3.1 The Front Panel



① 1/4" Instrument Input (only channel 1 and channel 2)

These two 1/4" instrument inputs have been designed to connect instruments such as electric guitars or basses. These instrument inputs are ultra high impedance amplifiers designed to allow the audio potential of an acoustic or electric instrument pickup to be fully realized.

Note: please do not use the pre-amp of the instruments on-board (if possible), in order to avoid distortion caused by over-driving input signal.

② Input Gain Control Knob (from channel 1 to channel 8)

The knob can be used to adjust the gain of the input signal. The gain range can be varied from 0dB to +60dB.

③ Phantom Power Switch (from channel 1 to channel 8)

The unit provides +48V Phantom Power to every channel. Via this lighted switch, you can turn on /off the +48V phantom Power for condenser microphone .

Note: please do not connect dynamic microphone when the phantom Power is on. Otherwise, It may damage the device and the microphone.

④ High Pass Filter Switch (from channel 1 to channel 8)

The unit provides an 80Hz high pass filter for each channel. You will activate the filter by pressing the lighted switch.

This filter is useful for eliminating extraneous low-end information from the signal being amplified. Frequencies from eighty hertz and below are cut from the incoming signal. This feature is useful in eliminating low frequency noise such as air-conditioning rumble or for reducing the sound of footsteps or other types of vibrations from being transmitted through the microphone stand into the microphone. But, never press the switch when in music or bass musical instrument application or the plump bass of music.

5 Input Level LED Indicator

These three LEDs will indicate the level of the input signal. When red LED flashes, it warns you that input signal level is too high and may cause distortion, please attenuate the level of the input signal.

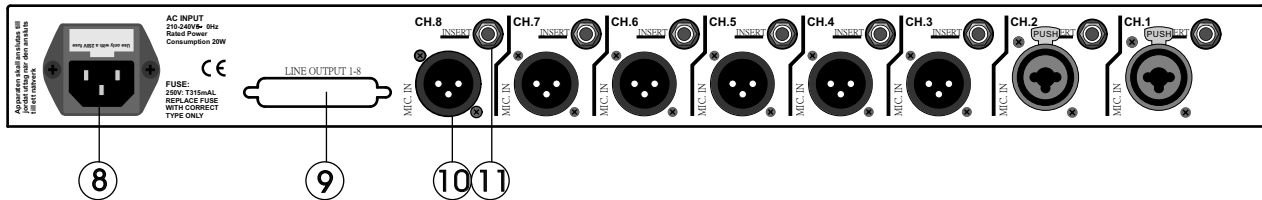
6 Power LED Indicator

When the unit is powered on, the LED lights up.

7 Power Switch

It switches on/off MP8 main power.

3.2 The Rear Panel



8 AC Inlet

Standard IEC receptacle, connect your MP8 to mains with the supplied power cord. Before powering up your MP8 for the first time, make certain the stated power requirement of the instrument matches the voltage supplied in the country. Failure to do so could result in injury to the user and the probability of irreparable damage to the unit is highly likely.

9 LINE OUTPUT 1-8

This preamplified output multi-pin connect is used to output channels 1-8 analog signals.

10 MIC Input

Each channel comes with input socket. There are balanced XLR sockets (from channel 3 to channel 8) and combo sockets (channel 1 and channel 2). It provides ultra low noise and wide gain control allowing the MP8 user to boost desirable signal without increasing unwanted background noise. Phantom power is available to each channel input of the MP8. When the phantom power switch is engaged, the +48v power is supplied for condenser microphone.

11 Insert

The MP8 provides a stereo 1/4" TRS socket for each channel. These connectors allow to send and receive the analog signal to and from an external processing unit.

4: INSTALLATION AND CONNECTION

4.1 Mains Connection

Please ensure that the MP8 supply voltage matches your area voltage before plugging the power cord into the wall outlet, use the same fuse as marked on the fuse holder at the AC power connection. The mains connection of the MP8 is made by using the enclosed mains cord and unit standard IEC receptacle. It complies to all international safety laws and rules.

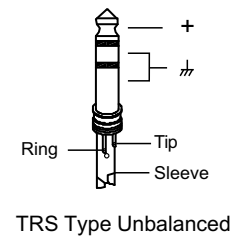
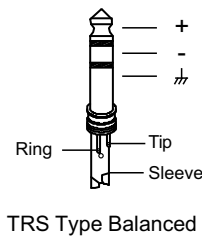
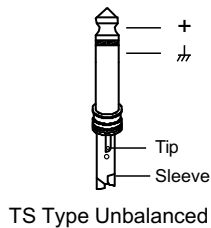
4.2 Audio Connection

MP8 inputs are provided of balanced XLR connectors (channels 1 and 2 have combo XLR & and 1/4" TRS connectors). It can be interfaced by sever always to support a variety of applications without any signal loss. Since defective or poor wiring may degrade MP8 performances, please use good quality screened audio cables only. Please follow the following wiring schematics to interface MP8 without experiencing any noise signal loss.

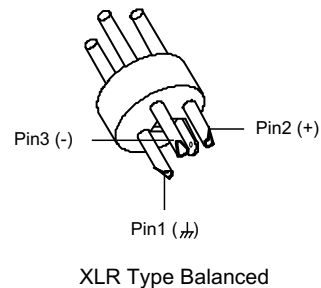
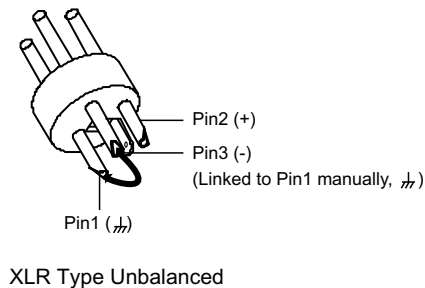
- Wiring Configuration

Either the 1/4" TRS phone jack or the XLR connector can be wired in balanced and unbalanced modes, which will be determined by the actual application status, please wire your system as the following wiring examples:

- For 1/4" Phone jack



- For XLR connector

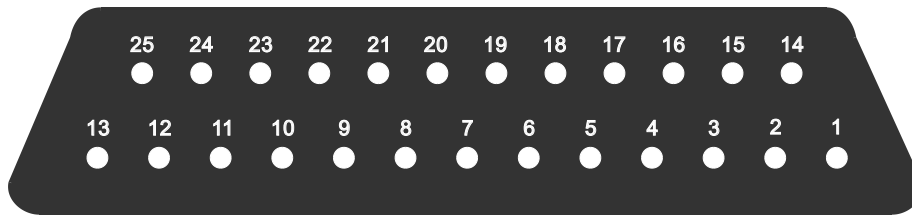


- XLR Connector Wiring For Phantom Power

PIN1 GND
PIN 2 +48v
PIN 3 +48v

- For Direct Output Multi-pin Connector Wiring

Direct output

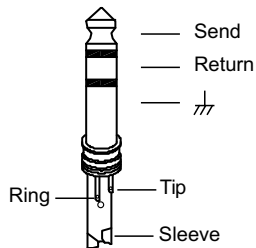


Pin23 = CH7-C	Pin18 = CH4-H	Pin14 = CH1-C
Pin10 = CH7-H	Pin6 = CH4-C	Pin1 = CH1-H
Pin11 = GND	Pin19 = GND	Pin2 = GND
Pin24 = CH8-H	Pin20 = CH5-C	Pin15 = CH2-H
Pin12 = CH8-C	Pin7 = CH5-H	Pin3 = CH2-C
Pin13 = GND	Pin8 = GND	Pin16 = GND
Pin25 = GND	Pin21 = CH6-H	Pin17 = CH3-C
	Pin9 = CH6-C	Pin4 = CH3-H
	Pin22 = GND	Pin5 = GND

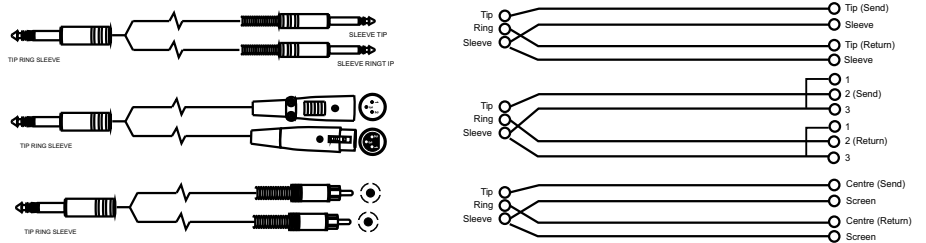
-Insert Points Connection

In order to use rear panel INSERT sockets, you need to use "Y" shaped cables, with one 1/4" TRS connector to be plugged into unit INSERT sockets and two TS plugs to be connected to an external unit. Please configure cable wiring like following examples.

1/4" TRS insert



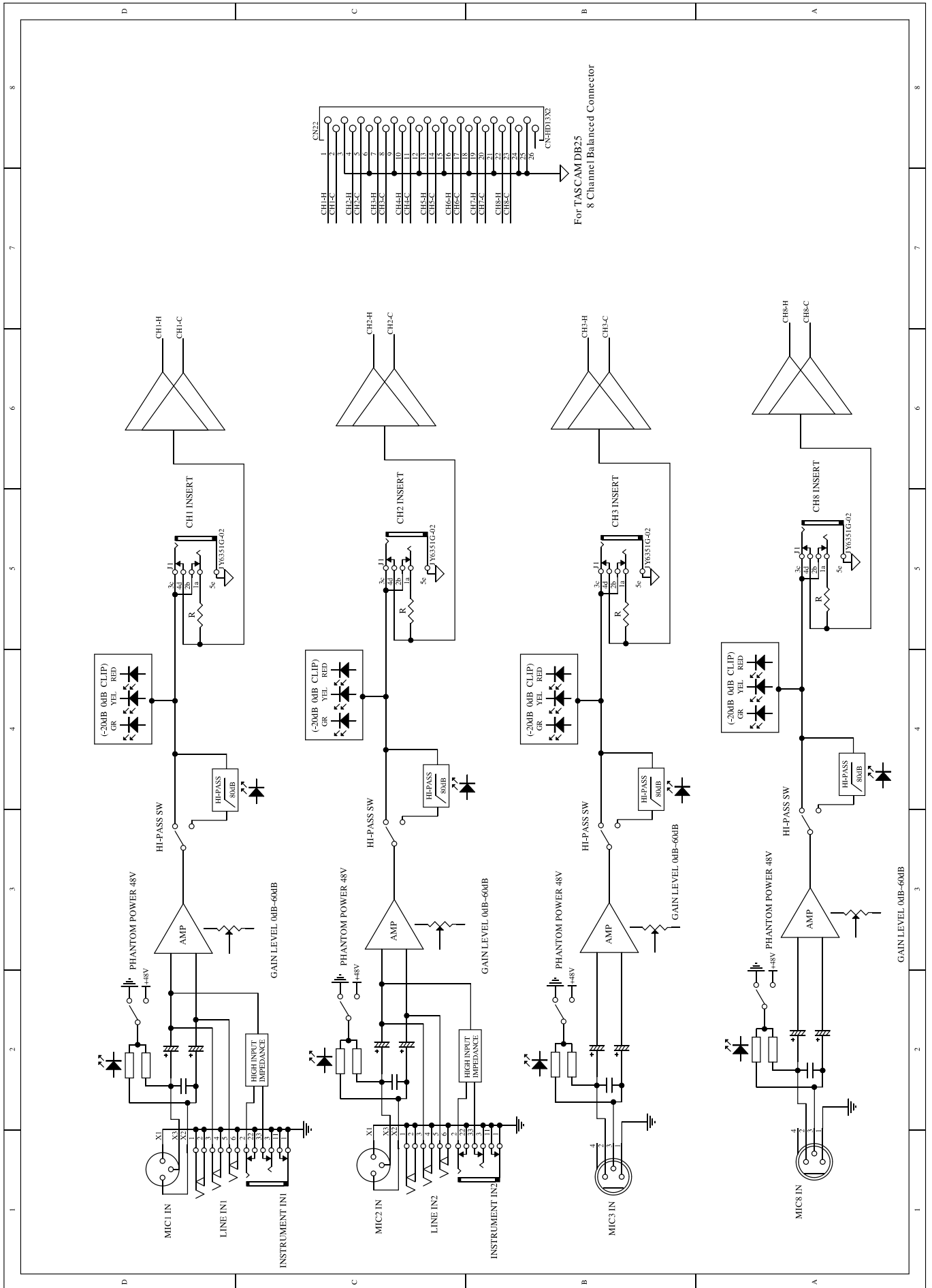
Insert Leads



4.3 Rack Mounting

The most secure mounting is on a universal rack shelf available from various rack manufactures or your music dealer. The MP8 fits into one standard 19" rack unit of space. Please allow at least an additional 4" depth for the connectors on the rear panel. Be sure that there is enough air space around the unit for sufficient ventilation and please do not place the MP8 on high temperature devices such as power amplifiers etc. to avoid overheating.

5. BLOCK DIAGRAM



6. TECHNICAL SPECIFICATION

INPUT	
Connectors	Six balanced XLR, Two 1/4" TRS Instrument Inputs and TWO combo on Channel One and Tw
Impedance	Balanced >50Kohm, Unbalanced >25Kohm
Max input level	>+24dBu balanced and unbalanced
CMRR	Typically >60dB at 1KHz

OUTPUT	
Connectors	Eight 1/4" TRS (INSERT) DIRECT OUT MULTI -PIN CONNECTOR WIRING
Impedance	balanced >60ohm
Max output level	>+21dBu balanced

SYSTEM SPECIFICATIONS	
Bandwidth	20HZ to 20kHz, +0/-0.5dB
Frequency Response	10Hz to 200kHz, +0/-3dB
Signal/Noise	>128dBu, weighted, 22Hz to 22kHz
THD	<0.007%
Crosstalk	<-100dB, 22Hz to 22KHz

FUNCTION SWITCHES	
48 Volt Phantom Power	Each MP8 input channel is provided of individual 48V Phantom Power switch
High pass filter	Each MP8 input channel is provided of individual 80Hz high pass switch

INDICATORS	
INPUT LEVEL	3 element LED display: -20 / 0 / CLIP dB.
Function switch	LED indicator for each switch

POWER SUPPLY		
Mains Voltages	USA/Canada	~120VAC, 60Hz
	U.K./Australia	~240VAC, 50Hz
	Europe	~230VAC, 50Hz
	General Export Model	~100-120VAC, ~200-240VAC, 50-60Hz
Fuse	100-120VAC : 400mA (SLOW-BLOW)	
	200-240VAC : 200mA (SLOW-BLOW)	
Power consumption	30 Watts	
Mains Connection	Standard IEC receptacle	

PHYSICAL	
Dimension	W(483.0)*D(288.0)*H(44.2) mm
Net Weight	3.3Kg

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 purport 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.

SEIKAKU TECHNICAL GROUP LIMITED

No. 1, Lane 17, Sec. 2, Han Shi West Road, Taichung 40151 Taiwan

<http://www.altoproaudio.com> Tel: 886-4-22313737

email: alto@altoproaudio.com Fax: 886-4-22346757

All rights reserved to ALTO. All features and content might be changed without prior notice. Any photocopy, translation, or reproduction of part of this manual without written permission is forbidden. Copyright © 2006 SEIKAKU GROUP