

User's Manual

PAM Series

PAM5 Passive Live Monitor

PAM5A Active Live Monitor

PAM5T Transformer 70.7V/100V Constant Voltage



www.altoproaudio.com
Version 1.0 October 2003

— English —

SAFETY INSTRUCTIONS



▲ "Electric discharge"

This symbol, alert you to the presence of uninsulated dangerous voltage inside the product enclosure, which constitutes a risk of electric shock.

▲ "Exclamatory point"

This symbol, alert the user to the presence of important operating and maintenance instructions in the owner's manual included to the product.

1. Read Instructions

All the safety and operation instructions should be read before using the product and retain them for future reference.

2. Water & Moisture

This product should not be used near water and will be protect from atmospheric agents in fixed or temporary installations.

3. Heat

This product should be situated away from heat sources such as radiators, or other devices which produce heat.

4. Liquid Entry

Care should be taken so that liquids are not spilled into the product and that objects do not fall on.

5. Service Assistance

This product should be serviced only by qualified service personnel when :

- a. Liquids has spilled or objects have fallen into this product, or
- b. This product has been exposed to rain, or
- c. This product does not appear to operate normally or exhibits change in performance, or has been dropped or its cabinet / chassis damaged.

6. Package

The package of this product has been tested, inspect the package before open, if any damage is found, notify to your dealer.

7. Hearing

This product produce high acoustic levels may cause permanent hearing loss, (SPL in for a defined period of time).

8. Installations

This product should be installed on the wall or in the floor with specific stands, according to the max weight.

TABLE OF CONTENT

1. PAM5 Passive Live Monitor	3
1.1 Quick Start - Passive Speaker Cabinet	
1.2 Input / Link Connections	
1.3 Wire Connections	
2. PAM5A Active Live Monitor	5
2.1 Quick Start - Active Speaker Cabinet	
2.2 Control Elements for PAM5A Rear Panel	
3. PAM5T Installation Speaker Cabinet	6
3.1 Quick Start Passive - Line 70.7/100V connection	
3.2 Control Elements for PAM5T Rear Panel	
4. Technical Specifications	8

1. PAM5 Passive Live Monitor

1.1 Quick Start - Passive Speaker Cabinet

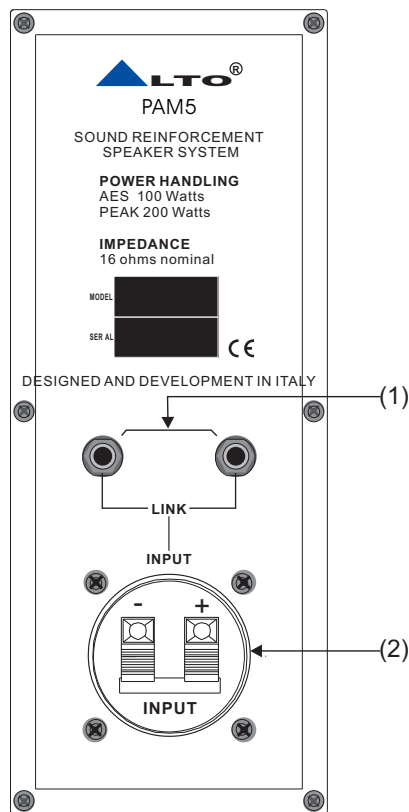
Make all initial connections, with the power switches Off for all equipment and main volumes are closed.

Connect one side of the speaker cable to the **Output CHA-CHB** (SPK+1/-1) or Binding Post of your stereo power amplifier and the other side to the **Input Link** (Jack for Live applications) or **Push-Button** (for fixed installations).

Caution: The Nominal Impedance is 16 ohm and the Minimum Impedance is 12 ohm.

Put more attention to the impedance value, when you connect more speakers with the same power amplifier.

1.2 Input / Link Connections



Two types of linked connector are used, **Mono Jack (1)** for Live application and **Push-Button (2)** for fixed installation.

The Positive connection is usually marked with (+), or Red for push-button.

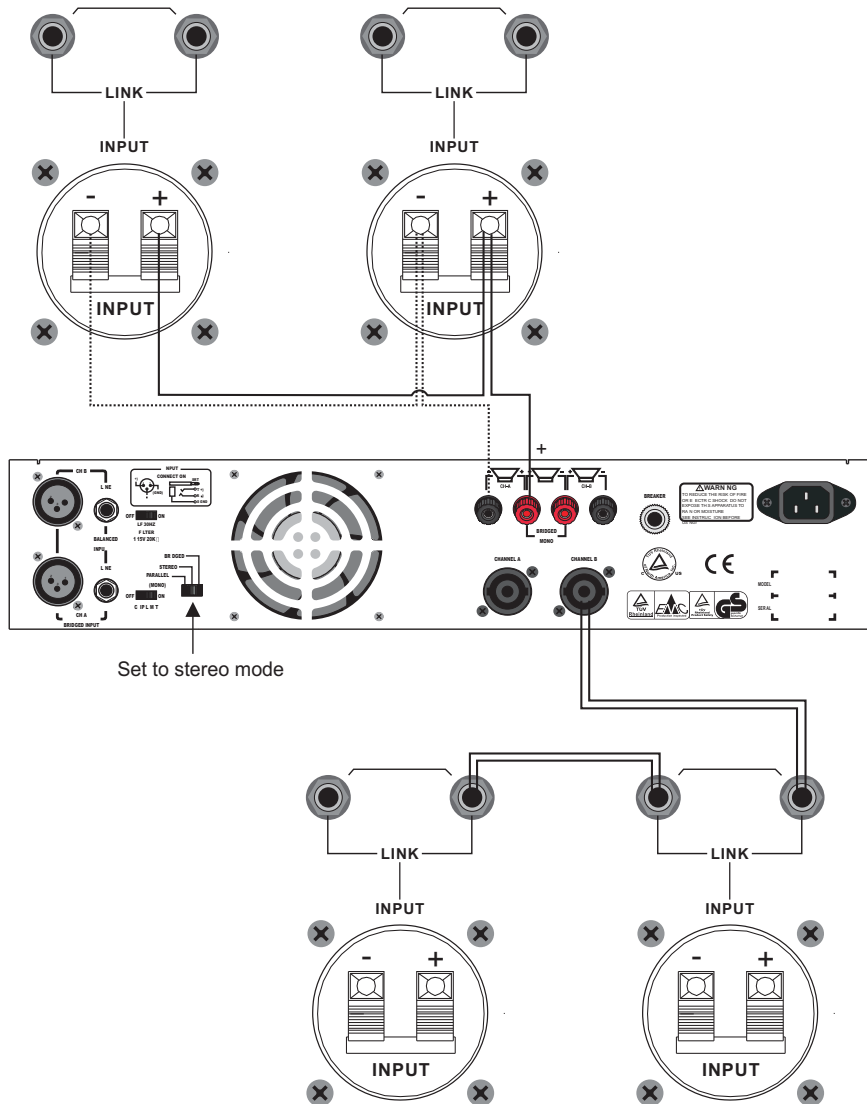
In case of 1/4" Standard Jack, the Tip of the plug is positive connection.

The Negative connection is usually marked with (-), or Black for push-button.

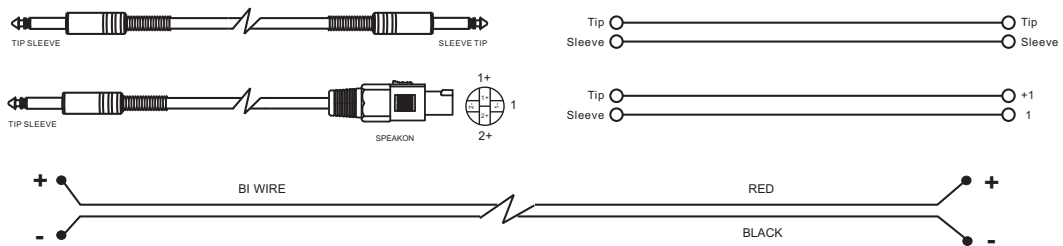
The sleeve of 1/4" Standard Jack will be the negative connection.

1.3 Wire Connections

Here, we strongly recommend you to pay more attention to its electrical connection with the power amplifier, and avoid any polarity mismatch issue. For further details, please refer to the following configuration.



- Power Connections



2. PAM5A Active Live Monitor

2.1 Quick Start - Active Speaker Cabinet

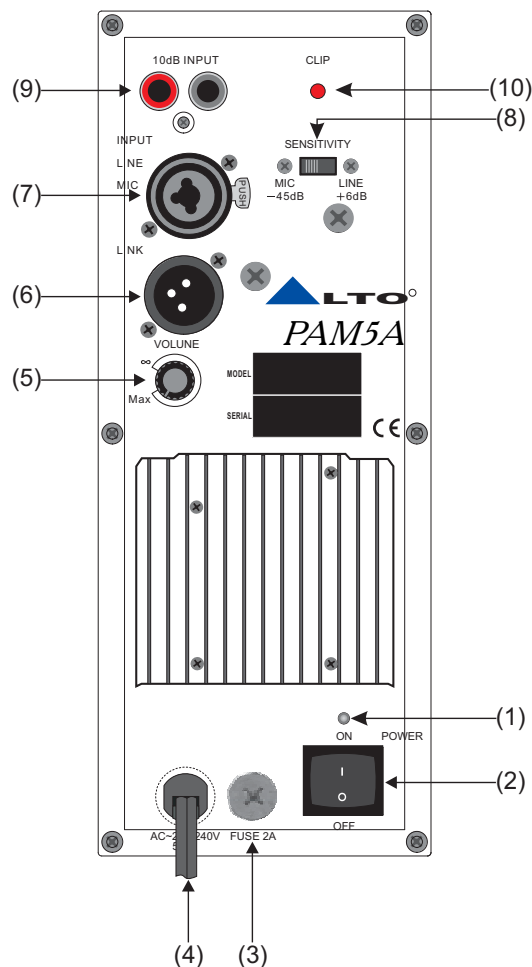
Make all initial connections, with the power switches Off for all equipment and main volumes are closed.

Connect one side of the signal cable at your audio mixer in to Output Left - Right (with Stereo - Jack or XLR) and the other side of the cable in to the Line Input (Combo) of your active speaker cabinet. Start always with the LINE switch sensitivity in +6dB positions.

Caution: The Line Input (Combo) and Link (XLR) are connected in Balanced or Unbalanced mode (Positive 2 / Negative 3 / Ground 1).

The input with RCA connector, work in direct mode and by-pass the Volume control.

2.2 Control Elements for PAM5A Rear Panel



(1) Power Indicator

This LED lights up blue when the PAM5A active speakers are powered ON.

(2) Power Switch

This switch is used to turn the PAM5A active speakers ON or OFF.

Caution: Make sure your supply voltage is same to the value printed on the rear panel, before turn on the switch, (230V - 50Hz # 115V - 60Hz).

(3) Mains Fuse

The fuse is a security device for mistake in the power supply, replace the fuse with the same type (230V - 2A # 115V - 4A).

Caution: Ask always at qualified personnel only.

(4) Power Cord

The power cord is a standard printed cable with ground makes for your security. Do not cut or replace the connector, be sure that ground is always connected at voltage supply line.

Caution: Ask always at qualified personnel only.

(5) Main Volume

This control adjusts the proper signal present on the Combo Connector (Line Input).

Caution: The signal present on the RCA-Connector (Input) is out of the Volume Control.

(6) Out / Link

Balanced Output (XLR Male), can be used for linked at another PAM5A Active Speaker with the same signal level of the first.

(7) Signal Input

Line Input on combined connector (XLR / Jack) for receive any type of signal Sources.

Balanced or unbalanced configuration is possible.

(8) Sensitivity Switch

Use this switch in LINE position at +6dB when you connect an Audio Mixer, use this switch in MIC position at -45dB when you connect a Microphone.

(9) Direct Aux Input

Direct Aux Input, with RCA connector, the signal work without volume control at -10dB of sensitivity.

(10) Limiter Indicator

When the LED indicator, flashes in Red colour the limiter circuit is engaged, when the LED indicator switches In fixed Red, the signal is excessive, adjust the Volume control or decrease the Mixer Output.

3. PAM5T Installation Speaker Cabinet

3.1 Quick Start Passive - Line 70.7V/100V connection

Make all initial connections, with the power switches Off for all equipment and main volumes are closed.

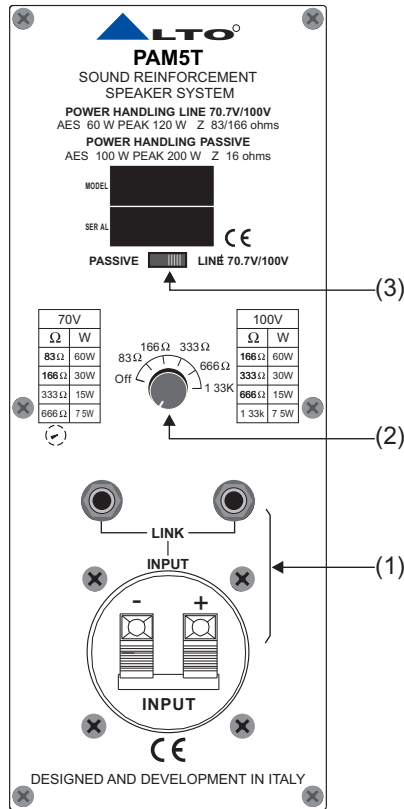
The 70.7V or 100V connection is possible only with power amplifier included the output transformer for same voltage value 70.7V/100V.

Connect one side of the bi-wire cable at your 70.7V or 100V power amplifier and the other side at the Input of PAM5T (push-button) or with a Mono Jack .

After this, select the desired power level of PAM5T, read the value in the 70.7V list from 60W (83 ohm) to 7.5W (666 ohm) or in 100V list from 60W (166 ohm) to 7.5W (1.33kohm).

Caution: Before switching ON the external power amplifier, verify the correct position of the Power Selections (Off - 7.5W/15W/30W/60W) and the correct position of slider selection (Passive - Line 70.7V/100V).

3.2 Control Elements for PAM5T Rear Panel



(1) Input / Link Connection

Two types of linked connector are used, Mono Jack for Live application and push-button for fixed installation.

The Positive connection is usually marked with (+), or Red for push-button.

In case of 1/4" Standard Jack, the Tip of the plug is positive connection.

The Negative connection is usually marked with (-), or Black for push-button.

The sleeve of 1/4" Standard Jack will be the negative connection.

(2) Power Selections

With this rotary switch, it is possible to select the power level of the PAM5T from 7.5W minimum to 60W maximum, for two different Constant Voltages 70.7V or 100V. In Off position the speaker system is disconnected from the Line.

(3) Passive - Line Selector

The type of work for PAM5T is selectable by a slider selector.

When in PASSIVE position, the PAM5Ts work in passive configuration at 16 ohm.

When in LINE 70.7V / 100V position, the transformer inside will be engaged.

4. Technical Specifications

	PAM5 - Passive Live Monitor
Power Handling	100W AES Standard /200W Peak Power
Frequency Response	75Hz - 16kHz @ +/- 10dB
Sensitivity (1watt @ 1mt)	94dB (1-2kHz octave band)
Max SPL (1mt)	at 100W -114dB @ at 200W -117dB
Speaker Complement	Two 5-inch extended range speakers
Connectors	INPUT - LINK On Mono jack for live application
	Push-button for fixed installation
Impedance	16ohms nominal -12ohms minimum
Enclosure Materials	High resistant plastic, anthracite colour
Fixing Point	4 × M4 standard (2× Vertical and 2× Horizontal side)
Dimensions	315 (H)× 195 (W)× 195 (D)mm
Weight	4.5kg (10lbs)

	PAM5A - Active Live Monitor
Power Amplifier	100W RMS (2× 50W class AB) /200W Peak Power
Frequency Response	75Hz - 16kHz @ +/- 10dB
Max SPL (1mt)	at 1mt -114dB @ at 0.5mt - 120dB
Speaker Complement	Two 5-inch extended range speakers
Connectors	MIC/LINE balanced input at -45/+6dB (Combo Connector)
	AUX Input at -10dB with RCA connector
	LINK Output at -45/+6dB with XLR
Volume Control	Continuous, work only on MIC/LINE input
Power Supply	230V - 115V@ 50 - 60Hz
Enclosure Materials	High resistant plastic, anthracite colour
Fixing Point	4 × M4 standard (2× Vertical and 2× Horizontal side)
Dimensions	315 (H)× 195 (W)× 195 (D)mm
Weight	5.5kg (12lbs)

	PAM5T Installation Speaker Cabinet
Power Handling	60W AES Standard / 120W Peak (transformer-limited)
	70.7V option, 60W (83ohm); 30W (166ohm); 15W (333ohm); 7.5W (666ohm); OFF
	100V option, 60W (166ohm); 30W (333ohm); 15W (666ohm); 7.5W (1.33kohm); OFF
Frequency Response	75Hz - 16kHz @ +/-10dB
Max. SPL (1mt)	at 60W -110dB @ at 120W -113dB
Speaker Complement	Two 5-inch extended-range speakers
Connectors	INPUT - LINK on Mono Jack for live application, or
	Push-button for Constant Voltage in fixed installation
	Slide selector for PASSIVE (16ohm)/LINE (70.7V/100V)
	Rotary switch for selectable power output (Off +5 step)
Enclosure Materials	High resistant plastic, anthracite colour
Fixing Point	4× M4 standard (2× Vertical and 2× Horizontal side)
Dimensions	315 (H)× 195 (W)× 195 (D)mm
Weight	5kg (11lbs)
	PASSIVE CONFIGURATIONS
Power Handling	100W AES Standard /200W Peak Power
Frequency Response	75Hz - 16kHz @ +/- 10dB
Sensitivity (1watt @ 1mt)	94dB (1-2kHz octave band)
Max SPL (1mt)	at 100W -114dB @ at 200W -117dB
Impedance	16ohms nominal - 12ohms minimum

SEIKAKU TECHNICAL GROUP LIMITED
No. 1, Lane 17, Sec. 2, Han Shi W. Road, Taichung, 401 Taiwan
<http://www.altomobile.com> Tel: 886-4-22313737
email: info@altomobile.com Fax: 886-4-22346757

All rights reserved to ALTO Mobile. Due to continued development in response to customer feedback, product features, specifications and/or internal/external design may be changed without prior notice. No photocopying, translation or reproduction of any part of this user manual is allowed without prior written permission. Copyright © 2004 Seikaku Technical Group Limited.