

# PUBLIC ADDRESS AMPLIFIER

## User's Manual



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## SAFETY RELATED SYMBOLS



The symbol is used to indicate that some hazardous live terminals are involved within this apparatus, even under the normal operating conditions.



The symbol is used in the service documentation to indicate that specific component shall be only replaced by the component specified in that Documentation for safety reasons.



Protective grounding terminal.



Alternating current /voltage.



Hazardous live terminal .

ON: Denotes the apparatus turns on.

OFF: Denotes the apparatus turns off, because of using the single pole switch, be sure to unplug the AC power to prevent any electric shock before you proceed your service.

**WARNING:** Describes precautions that should be observed to prevent the danger of injury or death to the user.



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

**CAUTION:** Describes precautions that should be observed to prevent danger of the apparatus.

## WARNING

### • Power Supply

Ensure the source voltage matches the voltage of the power supply before turning ON the apparatus.

Unplug this apparatus during lightning storms or when unused for long periods of time.

### • External Connection

The external wiring connected to the output hazardous live terminals requires installation by an instructed person, or the use of ready-made leads or cords.

### • Do not Remove any Cover

There are maybe some areas with high voltages inside, to reduce the risk of electric shock, do not remove any cover if the power supply is connected.

The cover should be removed by the qualified personnel only.

No user serviceable parts inside.

### • Fuse

To prevent a fire, make sure to use fuses with specified standard (current, voltage, type). Do not use a different fuse or short circuit the fuse holder.

Before replacing the fuse, turn OFF the apparatus and disconnected the power source.

### • Protective Grounding

Make sure to connect the protective grounding to prevent any electric shock before turning ON the apparatus.

Never cut off the internal or external protective grounding wire or disconnect the wiring of protective grounding terminal.

### • Operating Conditions

This apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on this apparatus.

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

Do not use this apparatus near water. Install in accordance with the manufacturer's instructions. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat. Do not block any ventilation openings.

No naked flame sources, such as lighted candles, should be placed on the apparatus.

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## IMPORTANT SAFETY INSTRUCTIONS

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- Read these instructions.
- Follow all instructions.
- Keep these instructions.
- Heed all warnings.
- Only use attachments/accessories specified by the manufacturer.

### • Power Cord and Plug

Do not defeat the safety purpose of the polarized or grounding type plug.

A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

### • Cleaning

When the apparatus needs a cleaning, you can blow off dust from the apparatus with a blower or clean with rag etc.

Don't use solvents such as benzol, alcohol, or other fluids with very strong volatility and flammability for cleaning the apparatus body. Clean only with dry cloth.

### • Servicing

Refer all servicing to qualified personnel. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

The mains plug is used as the disconnect device, the disconnect device shall remain readily operable.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Statement:

"This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help."

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## **INTRODUCTION**

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There are many models of PAX series amplifiers which have 60W, 120W & 240W power output. professionally designed for schools, department stores and shopping centres.

Great protection design, such as overload.....: such as overload , short-circuits of output overheat; and you can use it safely and freely. This new series has many acoustic modules, such as MP3 player BT FM, ECHO , telephone paging and monitor for option.

Each input volume can be controlled with the corresponding individual input volume control, and can be adjusted by means of a master volume and individual bass and treble tone controls. Emergency operation can be made of DC power source 24V, even when AC power fail. They have good performance and supply the excellent quality of sound . Besides , users can operate easily.

### **Features:**

1. Output : RMS 60W/120/240W.
2. 2 Tones(BASS/TREBLE); 5 Input volume controls; 1 MASTER;
3. MP3 player with SD/USB interface;
4. Impedance output is  $4\Omega$ ; constant voltage output is 70V,100V; output level display;
5. 4MIC(XLR)inputs; MIC/LINE/PHANTOM exchange SW; 1 AUX(RCA)INPUT;
- 6.ECHO Function;
- 7.High current switching power with class-D amplifier;
8. 1 HU rack 19" size.

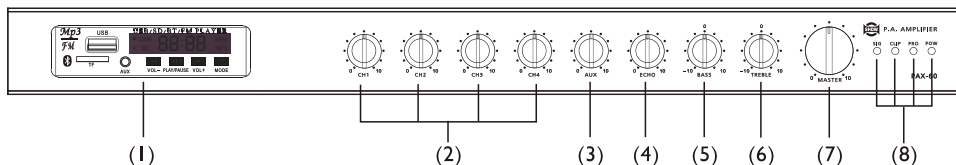
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## CONTROL ELEMENTS

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Take the below model with MP3 player + ECHO for example.

### I. FRONT PANEL



#### (1) MP3 MODULE

Regarding its function and operation, please see the BGM module description in detail.

#### (2) INPUT 1-4 VOL Knobs

The knobs are used to adjust the gain of input 1-4 respectively. Adjust clockwise to increase the volume while adjust counter-clockwise to decrease the volume.

#### (3) AUX VOL knob

The knobs are used to adjust the gain of AUX. Adjust clockwise to increase the volume while adjust counterclockwise to decrease the volume .

#### (4) ECHO FUNCTION

It is used to control ECHO, When not using the ECHO function, please turn the ECHO volume level to the minimum to avoid noise.

#### (5) BASS

Use the knob to control the low frequency at the range of  $\pm 10$ dB. Turn clockwise to boost and counterclockwise to attenuate the treble response. Tone is flat at centre.

#### (6) TREBLE

Use the knob to control the high frequency at the range of  $\pm 10$ dB. Turn clockwise to boost and counterclockwise to attenuate the treble response. Tone is flat at centre.

#### (7) MASTER

This knob is used to adjust the overall gain of the unit.

#### (8) Output level indicator and power LED.

## 2. MP3 Operation Instructions

Before performing the following operations, please confirm that the module is connected to the USB/TF card.

### 1. MODE button

Short press mode is to convert between USB-TF card and FM-AUX-BLUETOOTH. Long press as invalid button. USB, SD card and AUX input respectively correspond to port insertion, and can automatically enter the corresponding mode state, or can be manually selected.

In FM mode, you can listen to the radio by selecting the mode to the FM state, in addition, in places with low terrain, you must connect the external antenna to listen to clear FM radio.

In BT mode, use your mobile phone, computer and other devices to search for "VIRE BT" and then click on the connection, after connecting successfully, you can play music.

Note that the above modes can only use one mode alone, and it is impossible to use more than two modes at the same time.

### 2. VOL+

In MP3 mode, short press to play the next song, long press to continuously increase the volume;

In AUX mode, short press as invalid button, long press to continuously increase the volume;

In BT mode, short press to play the next song of BT, long press to continuously increase the volume;

In FM mode, Short press to save the next station for playback, long press to continuously increase the volume;

### 3. PLAY/PAUSE button

In MP3 mode, Short press for play and pause, long press for invalid button;

In AUX mode, Short press for mute button, long press for invalid button;

In BT mode, when playing music, short press

for pause/play button, press 2 times continuously to call back (last number), long press as invalid button;

When calling, long press to reject the call, short press to hang up when talking;

In FM mode, short press for pause/play button, long press to automatically search and save the station; such as P 01, P 02....



### 4. VOL-

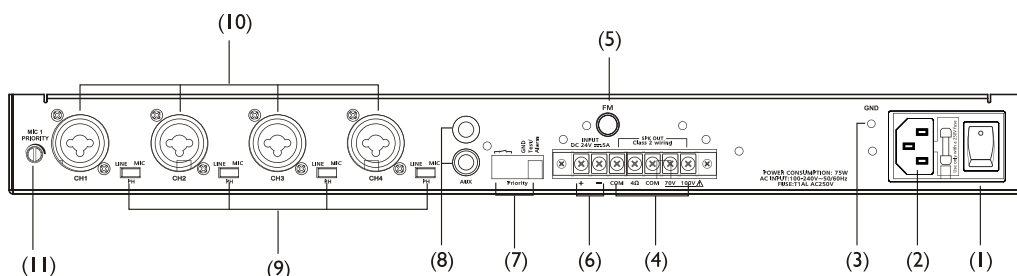
In MP3 mode, short press to play the previous song, long press to continuously decrease the volume;

In AUX mode, short press as invalid button, long press to continuously decrease the volume;

In BT mode, short press to play the previous song of BT, long press to continuously decrease the volume;

In FM mode, short press to save the previous station for playback, long press to continuously decrease the volume;

### 3. REAR PANEL



#### (1) POWER SWITCH

The main power can be switched on or off with it.

#### (2) AC JACK

This connector is meant for connection of the supplied main cord. Do not insert the power cord into this unit until voltage has been correctly set.

#### (3) GND

It is ground connection.

#### (4) OUTPUT TERMINALS

Connections for low impedance 4Ω speakers; connections for constant voltage, 70V or 100V speakers.

#### (5) FM ANT

#### (6) DC INPUT

It is used for DC power supply for 24V. You should pay attention to the polarity.

#### (7) MUTE/SEN

With Alarm or TEL paging working, all other input signals are muted.

#### (8) AUX IN

It is used for AUX input.

#### (9) MIC/PHANTOM/LINE SELECT SWITCH

It is turned to left for MIC, middle for PHANTOM, and right for LINE.

#### (10) INPUT1-4

They are used for both balanced and unbalanced inputs.

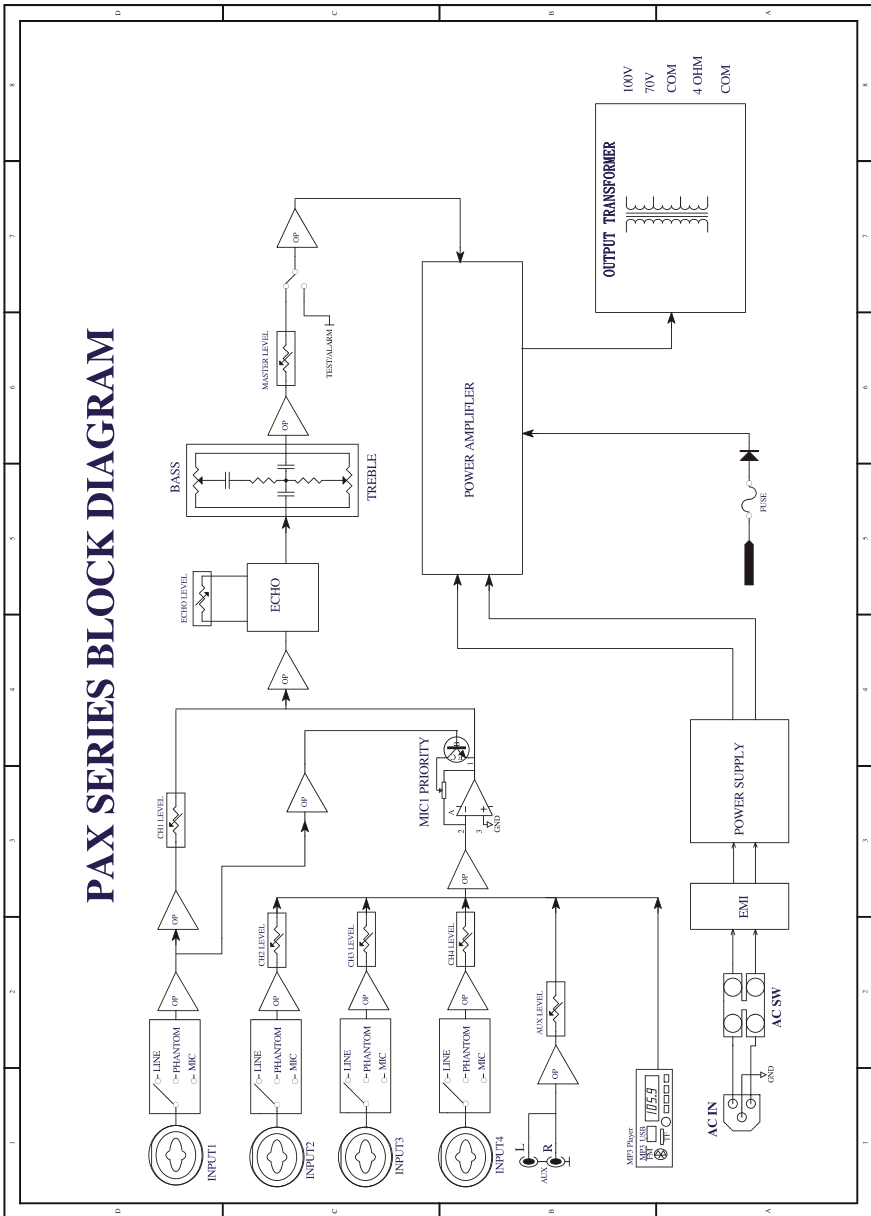
#### (11) MIC I PRIORITY

CHI Proriey adjust ment potentiometer.

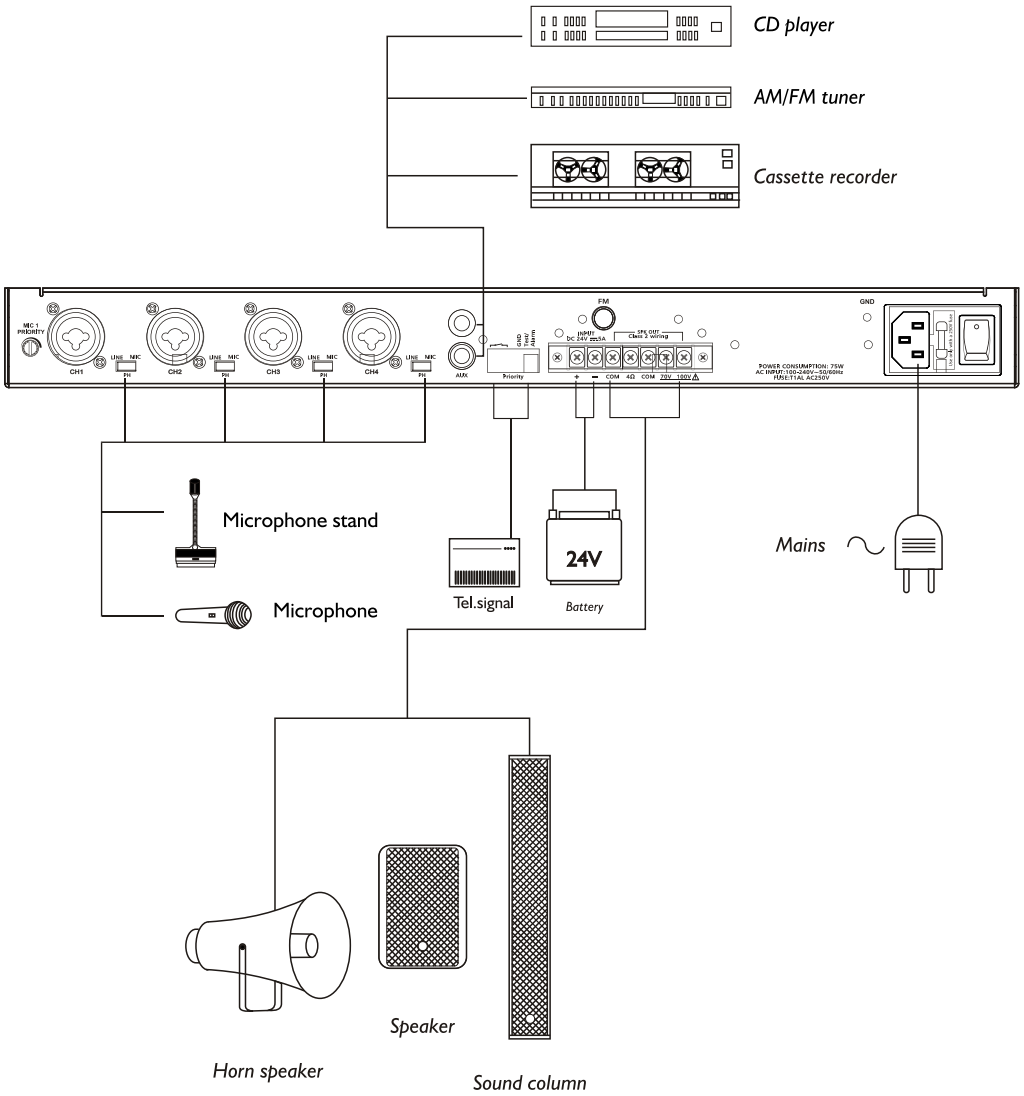


BLOCK DIAGRAM

PAX SERIES BLOCK DIAGRAM



# CONNECTION DESCRIPTION



## TECHNICAL SPECIFICATIONS

MODEL	PAX-60	PAX-120	PAX-240
Power supply	AC 100-240V 50/60HZ / DC24V		
Power output (1K/70V/100V)	60W(RMS)	120W(RMS)	240W(RMS)
Frequency response	80HZ-16KHZ( $\pm 3$ dB)..		
T.H.D	$1 \leq 1\%$ .		
S/N Ratio	Mic: $\geq 65$ dB. Phantom: $\geq 65$ dB. line: $\geq 75$ dB. AUX: $\geq 75$ dB.		
Input/Sensitivity	Mic: -52dBV balanced. Phantom: -52dBV/18V balanced. line: -10dBV balanced. AUX: -10dBV balanced. Test/alarm: -10dBV balanced.		
Equalizer Controls	BASS: $\pm 10$ dB(at 100HZ), TREBLE: $\pm 10$ dB(at 10KHZ),		
Indicators	Pow: Green led. Sig : Green led. Pro : Red led. Clip : Red led		
Output	COM,4 $\Omega$ ,70V,100V		
Controls	4 input volume controls, 1Aux volume controls. 2 Treble/Bass controls, 1 Master volume control. 4 Mic / phantom / line selector switch. 1.Mic1 Priority controls. MP3 player with SD/USB interface. ECHO function.		
Dimensions(W×D×H)	483x281x44mm.		
Net weight	4.1KG	4.9KG	5.6KG

