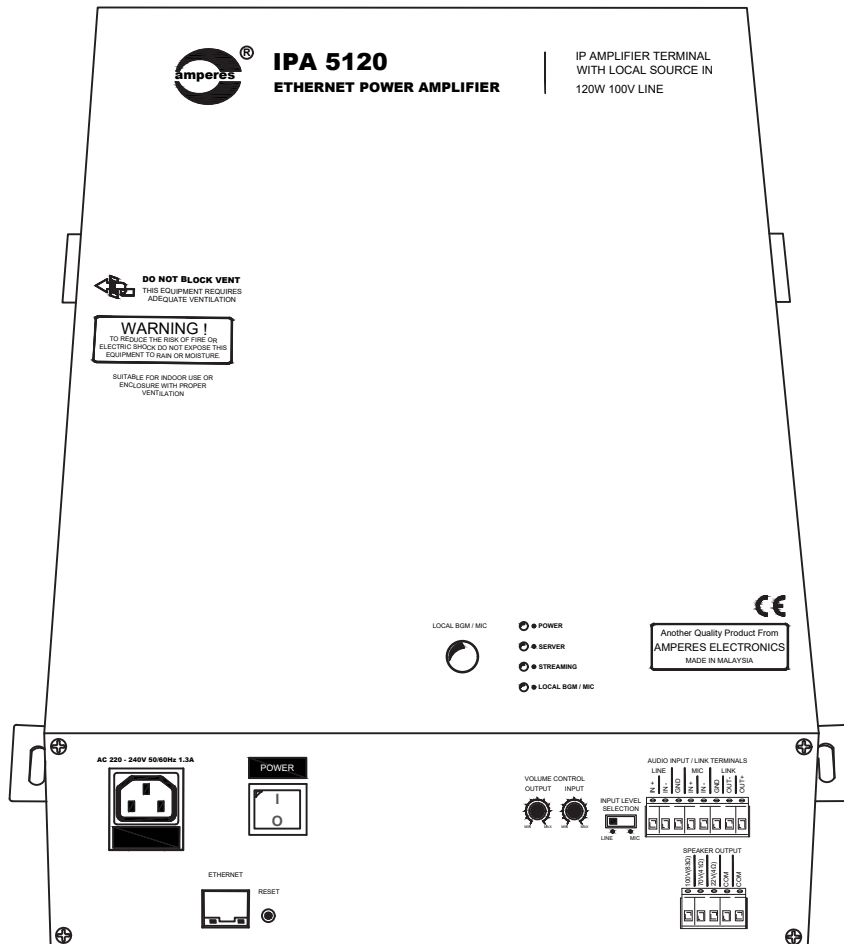




# INSTRUCTION MANUAL

## iPA5060 iPA5120

Ethernet Power Amplifier Terminal



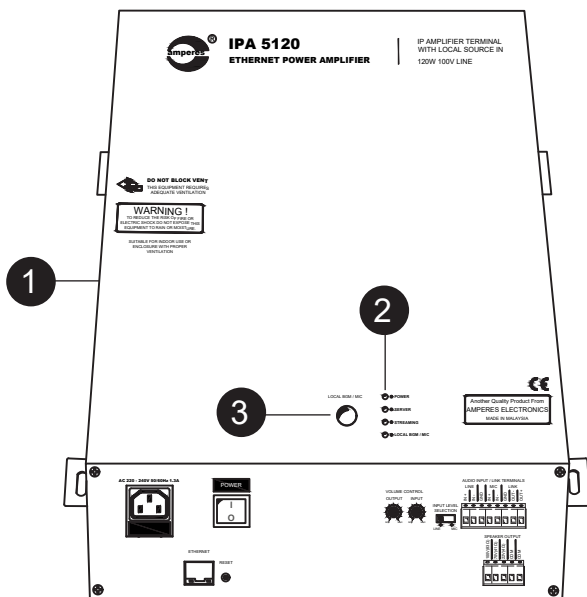
*Thank you for choosing another quality product from Amperes Electronics.*

Introducing the new arrival : iPA5060 - 60W 100V line and iPA5120 - 120W 100V line Ethernet Amplifier Terminals which has expanded the IP range of products further. Both are suitable for decentralised IP PA system in locations such as park kiosks, ticketing booths, classrooms, floor risers, pole mounted speakers for power plants, ports etc.

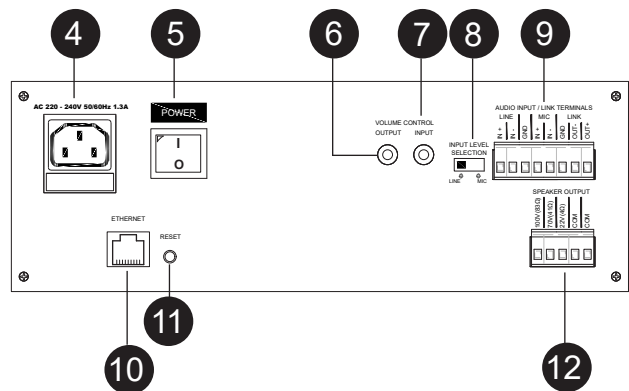
It has local audio source input, which can be either Mic or Line level, to enable local paging such as in classroom or park entrance. The local source shall be overridden by central paging and the highest priority shall be accorded to Emergency Paging or EVAC messages, to comply with EN54 or BS5839 requirement. Configuring the amplifier terminal is simple with user friendly browser interface, thanks to our detailed study and feedback from installers.

# Parts Identification

Front View



Rear View



## 1. SIDE VENT

External cool air enters the unit from these vent holes. Please ensure that there is sufficient clearance for ventilation.

## 2. INDICATOR LEDS

LEDs for Power, Streaming, Status and Server.

## 3. LOCAL BGM / MIC BUTTON

To switch in between local input and remote streaming from iPX5200.

## 4. MAINS AC INLET

Operating voltage is 220 to 240V ac; 50 / 60 Hz.

## 5. POWER BUTTON

Mains ac power switch.

## 6. OUTPUT VOLUME CONTROL

Volume controller for 100V line output.

## 7. INPUT VOLUME CONTROL

Volume controller for local input source.

## 8. INPUT LEVEL SELECTION

For selection input level from mic or line.

## 9. AUDIO INPUT / LINK TERMINAL

The amplifier accepts line balanced audio signal, mic and a link to connect in parallel to the next amplifier. Local source to the unit can be either Mic or Line level. Connect the right source to the respective terminals. Link terminal is for connection to external amplifier for extra power amplification.

# Parts Identification

## 10. ETHERNET PORT

Ethernet Port for connection to network switch.

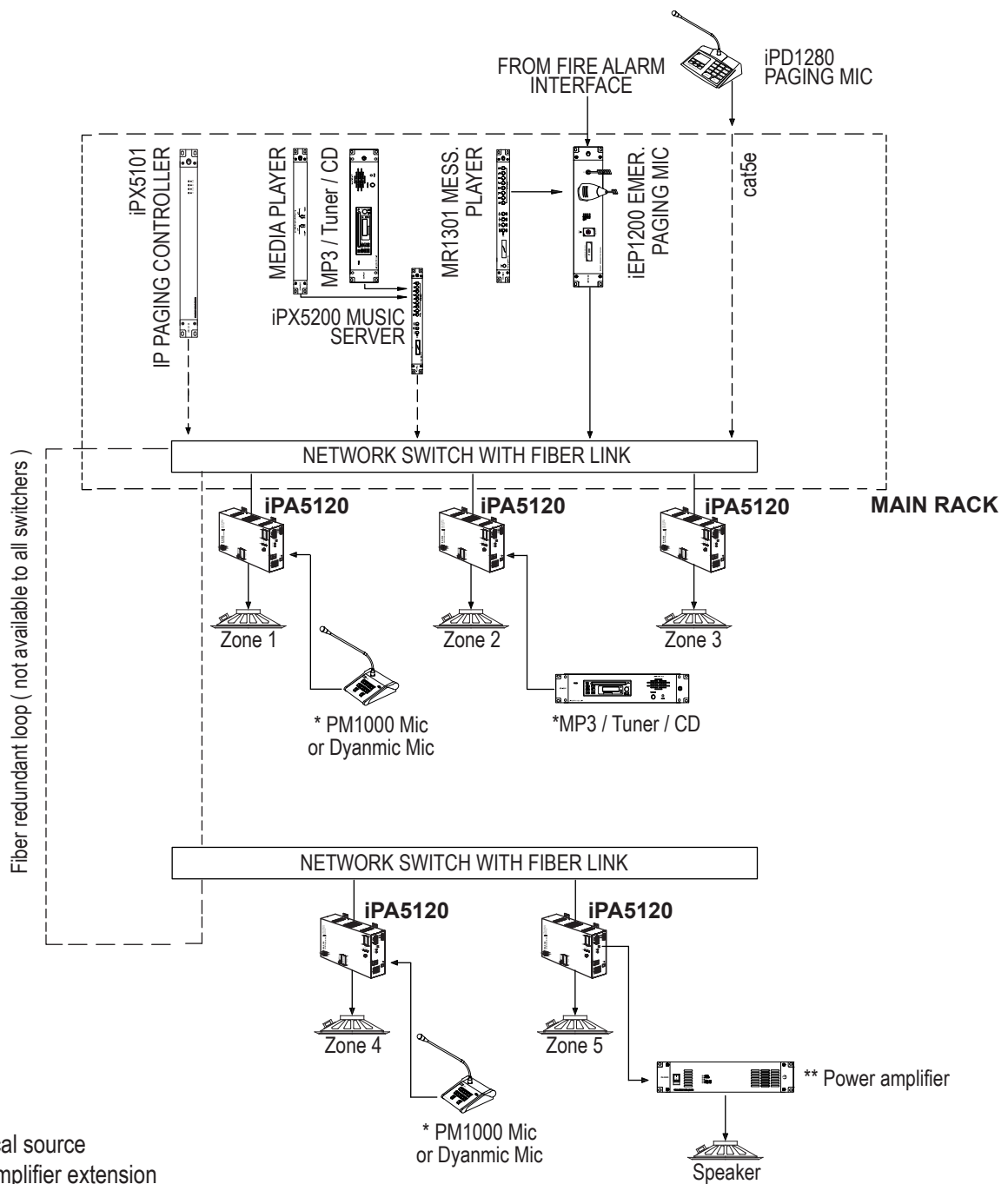
## 11. RESET BUTTON

Button for resetting the unit to factory default. Use only when required as setting done previously would be lost.

## 12. SPEAKER OUTPUT

Outputs from the units are available in 100 / 70V line and also for 4 Ohm speakers. At any one time, connect only one terminal.

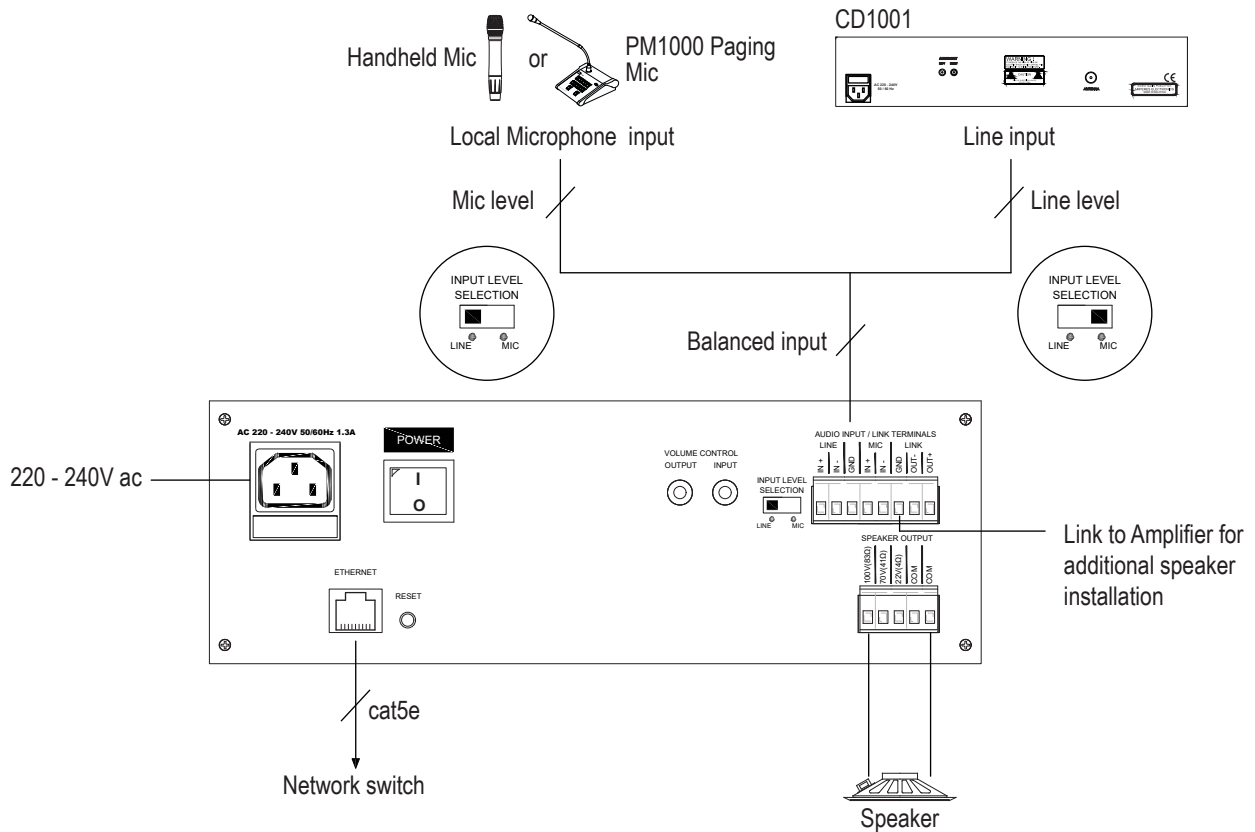
# Schematic Diagram



\* Optional local source

\*\* Optional amplifier extension

# Connecting The Unit



# Device Setup Via Browser

<b>i</b> Info	Firmware Version <b>V01.06 (Jan 14 2019)</b>
<b>Network Configuration</b>	Hardware Revision <b>01.00</b>
<b>System Configuration</b>	Serial Number <b>00000000000000000000</b>
<b>BGM Source</b>	Device Name <b>IPX Device</b>
<b>Network Information</b>	
MAC Address	<b>72:6A:76:19:0E:14</b>
IPv4 Address	<b>192.168.0.100</b>
Subnet Mask	<b>255.255.255.0</b>
Gateway Address	<b>192.168.0.1</b>
<b>Paging Server</b>	
Server Name	<b>IPX Device</b>
Server IP	<b>192.168.0.101</b>
Data Port	<b>3000</b>

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## Info / Main Page

**Info:** Providing hardware, network and paging server information. This shall be the first page once you entered the system's http browser.

**Network Information:** For configuration of IP address and its related ports.

**Paging Server:** For Paging Server Settings.

# Device Setup Via Browser

## Network Configuration

Unless required, you are recommended to change the IP address only, leaving other setting such as port number as default. Once the address has been changed to suit the environment, click the “Save Changes” button.

**NETWORK CONFIGURATION**

Network Settings

IP Address: 192.168.0.100

Subnet Mask: 255.255.255.0

Gateway Address: 192.168.0.1

Application Settings

Data Port: 3000

Save changes Restore Defaults

**SYSTEM CONFIGURATION**

Application Settings

Device Name: iPX Device

Connection Mode: Auto

Paging Server IP: 192.168.0.101

Zone Range: 1 To 255

Restricted Zones: 1,5,10,80,121

Web Page Theme: Dark

Save changes Cancel

Audio

Configuration Target: Paging

Volume: 80%

Graphic Equalizer

100Hz 250Hz 1KHz 4KHz 10KHz

Save changes Cancel

Authentication

New User Name: admin

Old Password: \_\_\_\_\_

New Password: \_\_\_\_\_

Confirm Password: \_\_\_\_\_

Save changes Cancel

## System Configuration

**Application Setting:** For Application Settings. The default source refers to the unit’s selected source every time it is turned on.

Device Name: You can rename the device name.

Connection Mode: You can choose Auto / Manual Setting.

Paging Server IP: To indicate the address of the iPA5060 / 5120 of which the client is connected to.

Zone Range: Zones that is served by the client / unit.

Restricted zones: Zones that only allows high priority paging / siren.

Web Page Theme: You can choose the theme of the web page.

**Audio:** You can setting the configuration target, volume and graphic equalizer.

**Authentication:** You can alter the user name and password to avoid unnecessary access to the system.

### Note:

Ensure Ethernet Power Amplifier is correctly set. If the paging source is iPA5120 / 5060, the default IP address shall be 192.168.0.100.

# System Bootloading (Firmware / Browser Update)

System firmware or Browser shall be updated once in a while when new features are available or to fix bugs. There are 2 methods of doing;

## Server Reset Bootloading

If the client “hanged”, it is required to perform system reset by :

1. Default reset: Press & hold the reset button until LED “streaming” ON.
2. At the web browser, enter the IP address 192.168.0.100 and the page below shall appear. This is a “Safe Mode” page for Browser or Firmware update.

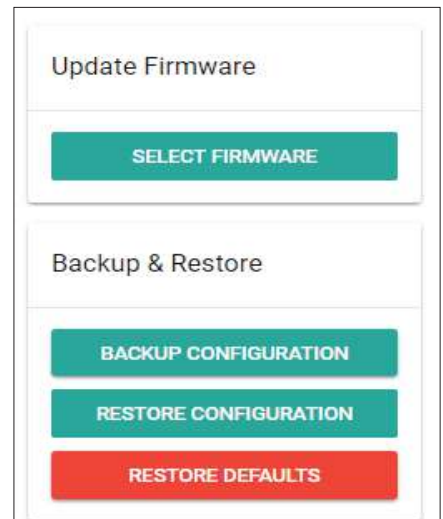
Safe mode: Press & hold the reset button until LED “status” ON.

## Update via Browser

When it is required to update the units firmware for bugs fixing or features upgrade, you can manage it by using browser at its designated IP address (default at 192.168.0.100).

To update, follow the steps below:

1. Download the updated firmware from our website or source it directly from our service center. The file extension is “appbin”, save it in your PC.
2. Use browser (http) to access the unit, go to “ System Configuration ” and look for “ Update Firmware ”. Click “ Select Firmware ” tab and locate the file saved earlier.
3. Finish the update, restart the device and the unit shall operate under latest firmware.



# Technical Specifications

	iPA5060	iPA5120
Power requirement :		
Power supply	220 - 240V ac; 50 / 60 Hz	
Current consumption ( load / standby )	0.7A / 0.1A	1.3A / 0.1A
Audio:		
Analogue input	1 mic or line level balanced signal via 8 way connector	
Input impedance	Mic: 600 Ohm Line: 10K Ohm	
Input gain controls	-40 to 4 dBu	
Rated output (100V, RMS)	60 / 120W	
4 Ohm output voltage	22V	
Output impedance (max load)	170 Ohm	83 Ohm
Frequency response	70Hz - 15KHz @ 1KHz +/- 3 dB	
S / N ratio	>70 dB @ 1 KHz, 1V	
THD + N	<0.18%	
Temperature control:		
Protections	Thermal, short circuit, overload, fuse, Inrush current	
Cut off temperature	75 Deg C	
Cooling system	Auto temperature controlled fan speed	
Controls / Communication:		
Communication control	RJ-45, 100Mb/s	
Common protocols	TCP/IP, UDP, IGMP, HTTP	
Priority protocols	UDMP, ADP	
Digital format (decode)	IMA ADPCM / MP3 (CBR / 320 kbps max) / WAV / MP2 / OGG / WMA / FLAC	
User interface	Direct web interface via LAN for PC	
Local control	1 push button to switch in between local input and remote input	
Firmware upgrade	Via web browser through PC / bootloading	
Priority controls ( low to high)	Remote input over LAN, local input, Emergency paging via iEP	
Case :		
Dimension (WxHxD)	250 x 85 x 375 mm	
Weight	6.40 kg	7.25 kg

## Note:

The above specifications are correct at time of printing but subjected to changes without prior notice due to product improvements.

## Warranty Conditions

Only Amperes Electronics Service Centres are allowed to make warranty repairs : a list of Amperes Electronics Service Centres may be asked for by the purchaser or send directly to Amperes Electronics Sdn Bhd at 70 Jalan Industri PBP 3, Tmn Perindustrian Pusat Bandar Puchong, 47100, Puchong, Selangor, Malaysia or its authorized dealers. This warranty is not valid if repairs are performed by unauthorized personnel or service centres.

This warranty covers only repairs and replacement of defective parts ; cost and risks of transportation as well as removal and installation of the product from the main system are for the account of the purchaser. This warranty shall not extend to the replacement of the unit.

This warranty does not cover damages caused by misuse, neglect, accident of the product as well as using the product with power supply voltage other than shown on the product, or any other power supply source / adaptor not recommended by the manufacturer.

This warranty does not cover damages caused by fire, earthquakes, floods, lightning and every cause not directly related to the unit.

This warranty does not include any indemnity in favor of the purchaser or the dealer for the period out of use of the unit; moreover the warranty does not cover any damages which may be caused to people and things when using the product.

This warranty certificate is valid only for the described product, and is not valid if modifications are made on this certificate or on the identification label applied on the product.

This warranty covers all the material and manufacturing defects and is valid for a period of 36 months from the date of purchase or for a specified period in countries where this is stated by a national law. In this case, the extension is valid only in the country where the product is purchased.

Amperes Electronics Sdn Bhd is not obliged to modify previously manufactured products under warranty if the design changes or improvements are made.

## Disclaimer

Information contained in this manual is subject to change without prior notice and does not represent a commitment on the part of the vendor. AMPERES ELECTRONICS SDN BHD shall not be liable for any loss or damages whatsoever arising from the use of information or any error contained in this manual.

It is recommended that all services and repairs on this product be carried out by AMPERES ELECTRONICS SDN BHD or its authorized service agents.

AMPERES series must only be used for the purpose they were intended by the manufacturer and in conjunction with this operating manual.

AMPERES ELECTRONICS SDN BHD cannot accept any liability whatsoever for any loss or damages caused by service, maintenance or repair by unauthorized personnel, or by use other than that intended by the manufacturer.



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