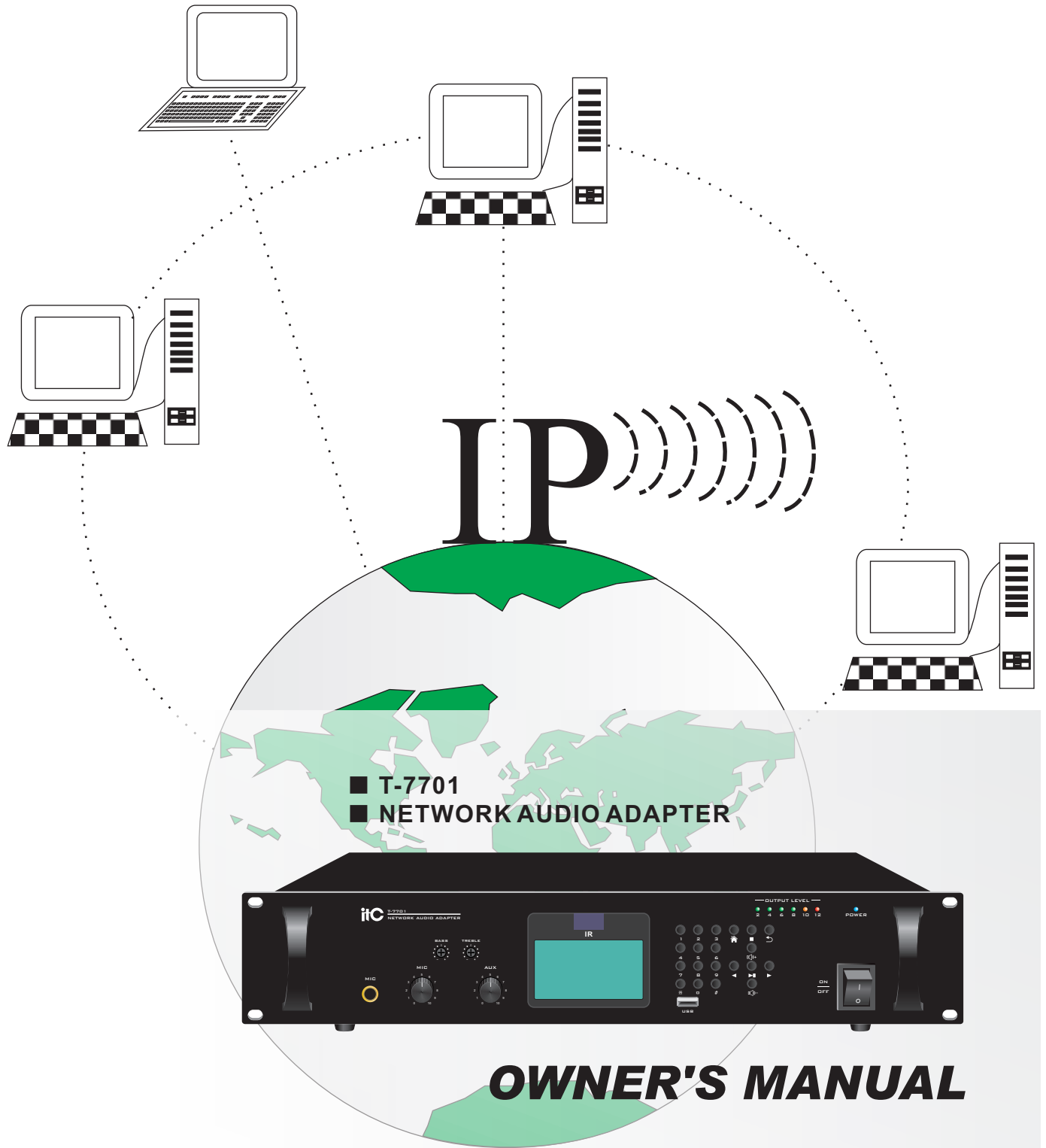


# itC IP NETWORK PA SYSTEM



Please follow the instructions in this manual to obtain the optimum results from this unit. We also recommend that you keep this manual handy for future reference.

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# 1. SAFETY PRECAUTIONS

- Be sure to read the instructions in this section carefully before use.
- Make sure to observe the instructions in this manual as the conventions of safety symbols and messages regarded as very important precautions are included.
- We also recommend you keep this instruction manual handy for future reference.

## Safety Symbol and Message Conventions

Safety symbols and messages described below are used in this manual to prevent bodily injury and property damage which could result from mishandling. Before operating your product, read this manual first and understand the safety symbols and messages so you are thoroughly aware of the potential safety



### WARNING

Indicates a potentially hazardous situation which, if mishandled, could result in death or serious personal injury.



### CAUTION

Indicates a potentially hazardous situation which, if mishandled, could result in moderate or minor personal injury, and/or property damage.



## WARNING

### When Installing the Unit

- Do not expose the unit to rain or an environment where it may be splashed by water or other liquids, as doing so may result in fire or electric shock.
- Use the unit only with the voltage specified on the unit. Using a voltage higher than that which is specified may result in fire or electric shock.
- Do not cut, kink, otherwise damage nor modify the power supply cord. In addition, avoid using the power cord in close proximity to heaters, and never place heavy objects -- including the unit itself -- on the power cord, as doing so may result in fire or electric shock.
- Be sure to replace the unit's terminal cover after connection completion. Because high voltage is applied to the speaker terminals, never touch these terminals to avoid electric shock.
- Be sure to ground to the safety ground (earth) terminal to avoid electric shock. Never ground to a gas pipe as a catastrophic disaster may result.
- Avoid installing or mounting the unit in unstable locations, such as on a rickety table or a slanted surface. Doing so may result in the unit falling down, causing personal injury and/or property damage.

### When the Unit is in Use

- Should the following irregularity be found during use, immediately switch off the power, disconnect the power supply plug from the AC outlet and contact your nearest **ITC** dealer. Make no further attempt to operate the unit in this condition as this may cause fire or electric shock.
  - If you detect smoke or a strange smell coming from the unit.
  - If water or any metallic object gets into the unit
  - If the unit falls, or the unit case breaks
  - If the power supply cord is damaged (exposure of the core, disconnection, etc.)
  - If it is malfunctioning (no tone sounds.)
- To prevent a fire or electric shock, never open nor remove the unit case as there are high voltage components inside the unit. Refer all servicing to your nearest **ITC** dealer.
- Do not place cups, bowls, or other containers of liquid or metallic objects on top of the unit. If they accidentally spill into the unit, this may cause a fire or electric shock.
- Do not insert nor drop metallic objects or flammable materials in the ventilation slots of the unit's cover, as this may result in fire or electric shock.

### CAUTION

#### When Installing the Unit

- Never plug in nor remove the power supply plug with wet hands, as doing so may cause electric shock.
- When unplugging the power supply cord, be sure to grasp the power supply plug; never pull on the cord itself. Operating the unit with a damaged power supply cord may cause a fire or electric shock.
- When moving the unit, be sure to remove its power supply cord from the wall outlet. Moving the unit with the power cord connected to the outlet may cause damage to the power cord, resulting in fire or electric shock. When removing the power cord, be sure to hold its plug to pull.
- Do not block the ventilation slots in the unit's cover. Doing so may cause heat to build up inside the unit and result in fire.
- Avoid installing the unit in humid or dusty locations, in locations exposed to the direct sunlight, near the heaters, or in locations generating sooty smoke or steam as doing otherwise may result in fire or electric shock.

#### When the Unit is in Use

- Do not place heavy objects on the unit as this may cause it to fall or break which may result in personal injury and/or property damage. In addition, the object itself may fall off and cause injury and/or damage.
- Make sure that the volume control is set to minimum position before power is switched on. Loud noise produced at high volume when power is switched on can impair hearing.
- Do not operate the unit for an extended period of time with the sound distorting. This is an indication of a malfunction, which in turn can cause heat to generate and result in a fire.
- Contact your **ITC** dealer as to the cleaning. If dust is allowed to accumulate in the unit over a long period of time, a fire or damage to the unit may result.
- If dust accumulates on the power supply plug or in the wall AC outlet, a fire may result. Clean it periodically. In addition, insert the plug in the wall outlet securely.
- Switch off the power, and unplug the power supply plug from the AC outlet for safety purposes when cleaning or leaving the unit unused for 10 days or more. Doing otherwise may cause a fire or electric shock.

An all-pole mains switch with a contact separation of at least 3 mm in each pole shall be incorporated in the electrical installation of the building.

## 2. APPLICATION

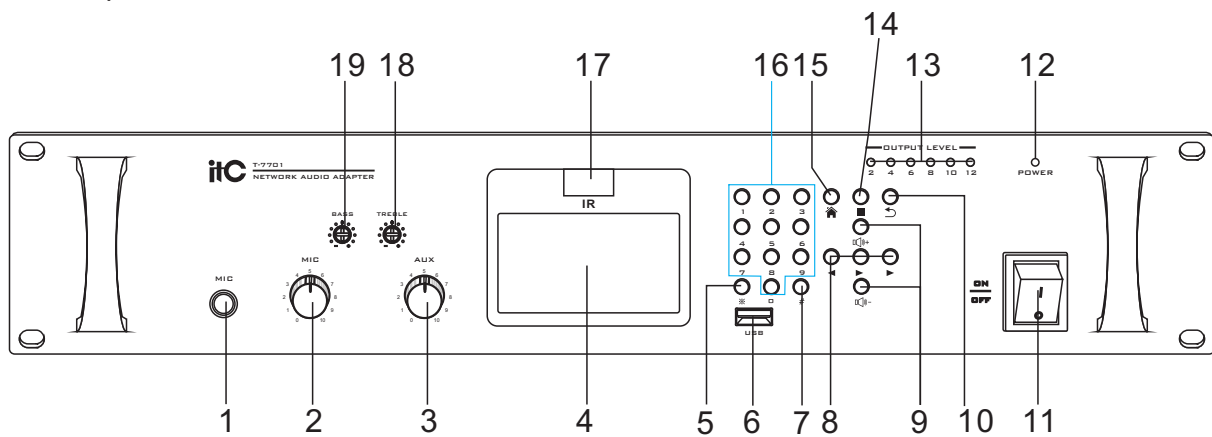
It is a popular used model installed in low voltage room or parallel room of radio management area, matched with 2 sets of power amplifier. It is an ideal choice to broadcast in hall, corridor, outdoor areas etc.

## 3. FEATURES

1. 19 rack mount IP/TCP network audio adapter, black alumina panel, strong Handle, Professional mechanical assembly process, the appearance is very high-end.
2. Built-in 3.4 inch LCD screen, can clear display most of lattice pattern and machine working state.
3. Embed PC technology, built-in DSP Audio processing technology design and high speed industrial chip to ensure start time less than 1 second.
4. Built-in single network hardware audio decoding module, support TCP/IP, UDP, IGMP (Multicast) protocol, transmit 16-bit stereo audio signal of CD quality through network transmission.
5. One channel (AUX) and one channel Mic. (Mic) input interface. Support independent bass and treble adjustment and support offline local paging function without Internet.
6. EMC 1 road input interface, enter the emergency alarm voice signal for straight, with the highest priority.
7. 2 road auxiliary audio signal output interface, extensible external power amplifier, the standard lotus interface, wiring connection is very convenient.
8. One channel 3 wire system strong cutting output interface of volume control, no need strong cutting power supply, it compatible with 4 wire fire alarm strong cutting at the same time, it needs 24V strong power supply.
9. Built-in intelligent power management, no music or call, automatic cut off output power, output signal automatically open when the power supply, support IP software programming beforehand to open the output power.
10. Built-in 3 priority setting:
  - 1) EMC as the highest priority.
  - 2) Network alarm signal priority MIC, AUX and network background music signal.
  - 3) MIC AUX priority and network background music signal.
  - 4) AUX and background music for peer network, do not have any preferred.
11. Support function of reduce preset mute level, support background accompaniment preset function. Support status led display, including the level indicator, protection, standby indicator lights. Authorized operation management functions, Unified configuration and management user and password by the server.
12. Support DHCP, compatible routers, switches, Bridges, Modem, Internet, 2G, 3G, 4G, arbitrary, multicast, etc.
13. Digital products, the capacity is convenient, without being limited by the geographical position, don't need to increase the engine room management equipment, with a total net free line construction design concept, simple installation.

## 4. NOMENCLATURE AND FUCTIONS

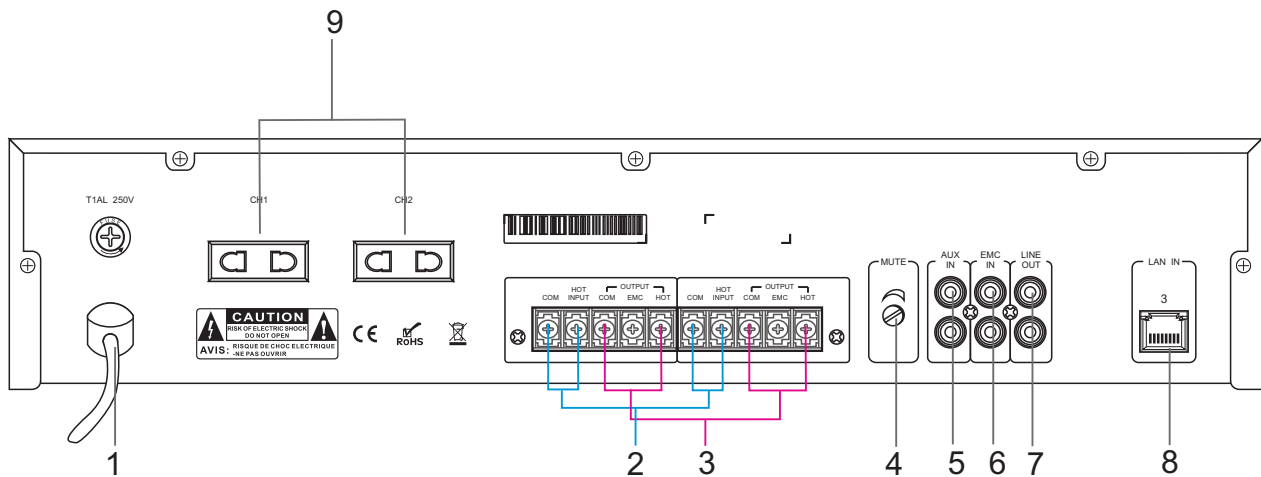
### 4.1 Front panel



1. Local MIC input, Adopting 6.35mm MIC input interface.
2. Volume control of MIC input.
3. Volume control of AUX input.
4. Working status display screen, Mainly used for showing the different status in different quests.
5. "\*" key - clear the fill code.
6. USB interface - used to read the U disk to store MP3 audio signals.
7. "#" key.
8. Left/right direction key and pause key.
9. Volume plus / minus keys, its function is:  
Volume plus key - press and hold the volume up button to zoom in on the volume;  
Volume down key - Press and hold the volume down button to make the volume decrease.
10. Back button - mainly used to press the button to return to the previous step when selecting errors or entering errors.
11. Power switch, Mainly used for start up and shut down the equipment. Turn ON to switch on the equipment, OFF to shut down the equipment.
12. Power indicator, Mainly used for indicating of the power startup and shutdown. The LED lights on when switches on the equipment, it lights off when shuts down the equipment.
13. OUTPUT LEVEL—Level indicator.
14. Stop button.
15. The main menu button - mainly used to enter the menu after the corresponding function settings.
16. 0-9 number keys , It is mainly used for the corresponding options of the home page.
17. Remote control receiver window.
18. TREBLE—Adjust the response of treble. Increase treble output by knob clockwise rotation and decrease it by knob anticlockwise rotation.
19. BASS—Adjust the response of bass. Increase bass output by knob clockwise rotation and decrease it by knob anticlockwise rotation.

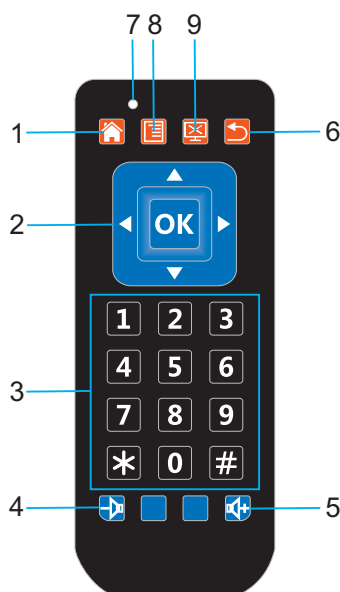
## 4. NOMENCLATURE AND FUNCTIONS

### 4.2 Rear panel



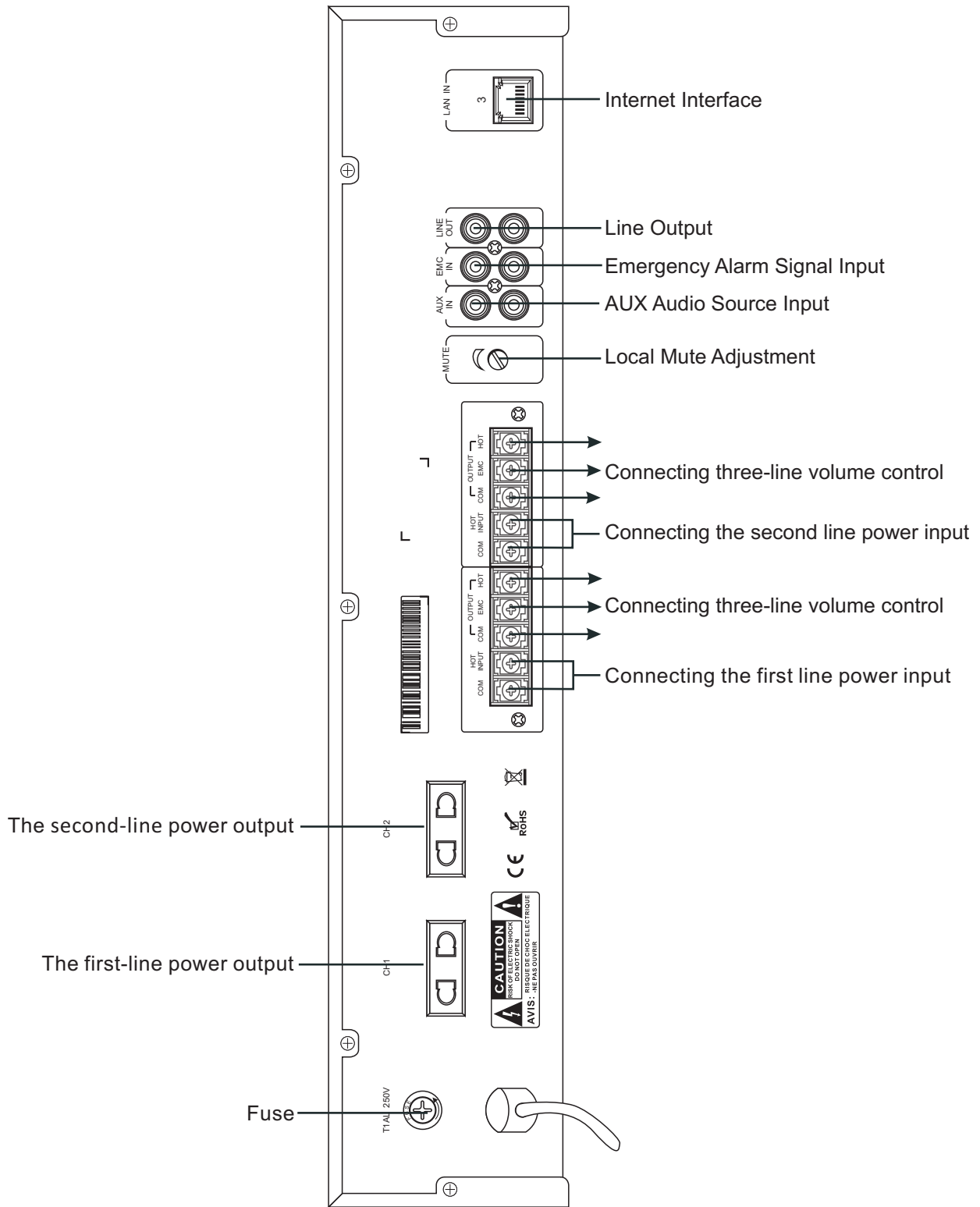
1. AC power input.
2. CH1/CH2 signal input port  
Connecting with 100V output terminal of the amplifier.
3. CH1/CH2 three-wire delay alarm port  
Connecting with three-wire volume control.
4. Mute potentiometer, turn the knob to the rightmost, the mute level is the maximum; And turn the knob to the leftmost; the mute level is the minimum.
5. AUXIN  
Audio source input jack, the unbalance connecting port.
6. EMC  
Emergency alarm music signals input. The equipment will take the priority to play the music automatically once there is signal input of EMC channel.
7. 2 channel line output, unbalance output port.
8. LAN IN  
connecting with EtherNet port/switch by internet cable.
9. 2 channel independent power outputs correspond to 2 independent channels.

### 4.3 Remote control

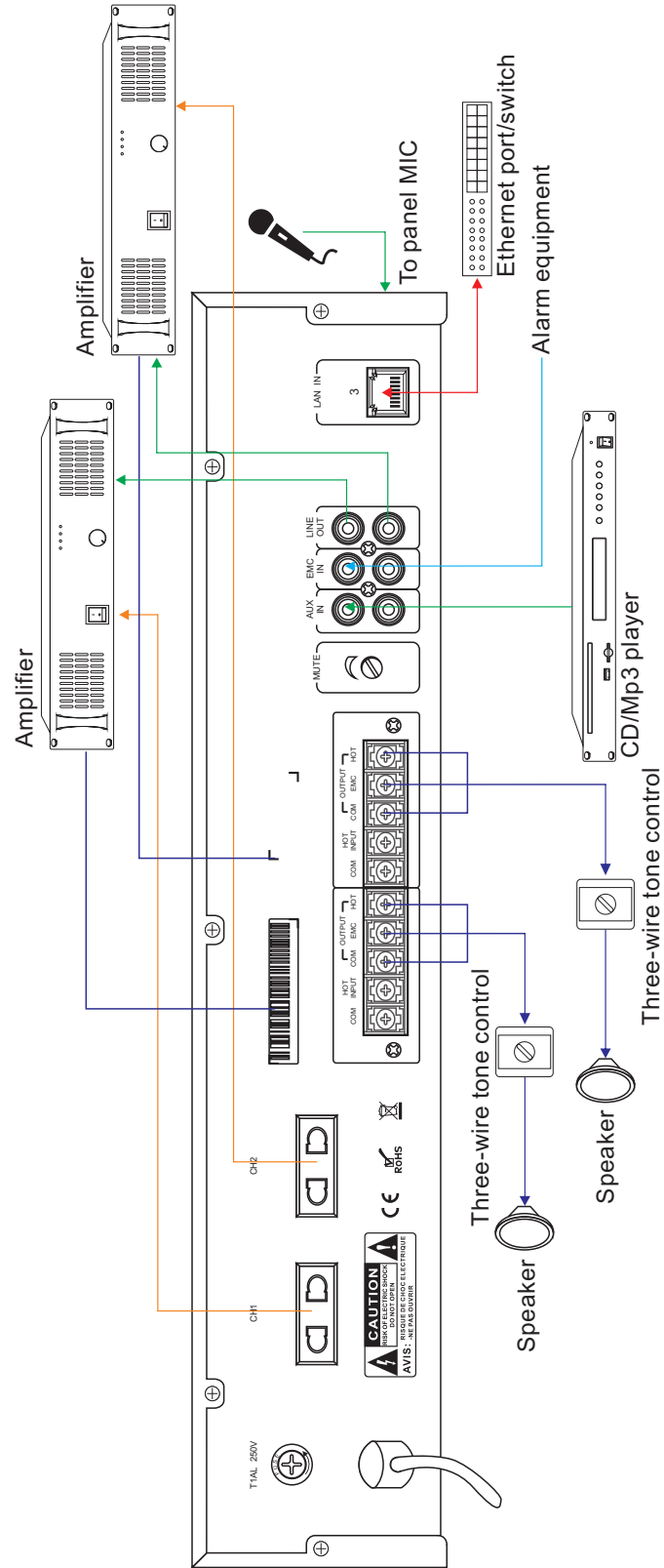


1. Back to Main Menu
2. Confirm button/up/down/left/right select direction button
3. Number button 0-9, button\*, button#
4. Volume reducing button
5. Volume increasing button
6. Return button
7. Work status indicator
8. Reserved function button
9. Stop button

# 5. FUNCTIONAL DESCRIPTION



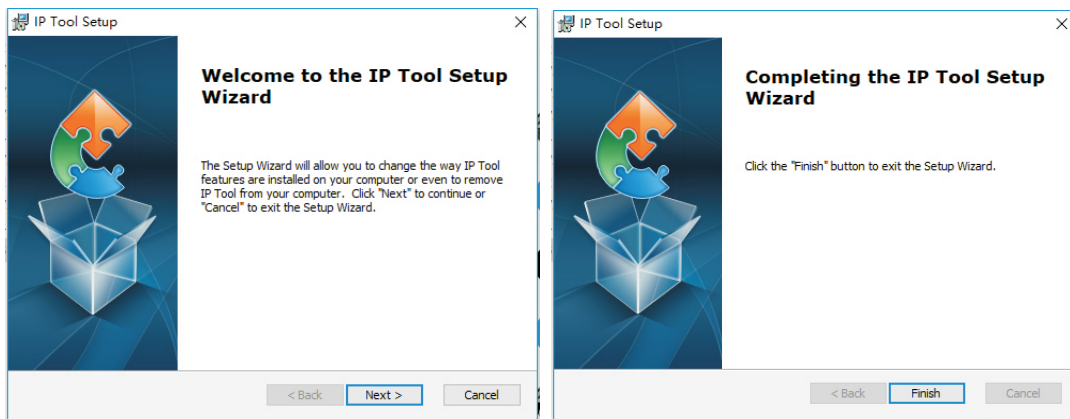
# 6. WIRING DIAGRAM



## 7. TERMINAL CONFIGURATION OPERATING INSTRUCTIONS

The terminal needs to be configured before installation, before installation, need make a installation plan including terminal name, terminal IP address, gateway IP address, server IP address, location of terminal installation, and label the information on the terminal to ensure the convenient use of the device. Please save the plan as an electronic document for future maintenance. After the system planning is completed, please configure parameters of each terminal includes “terminal IP address, subnet mask, gateway and server address”.

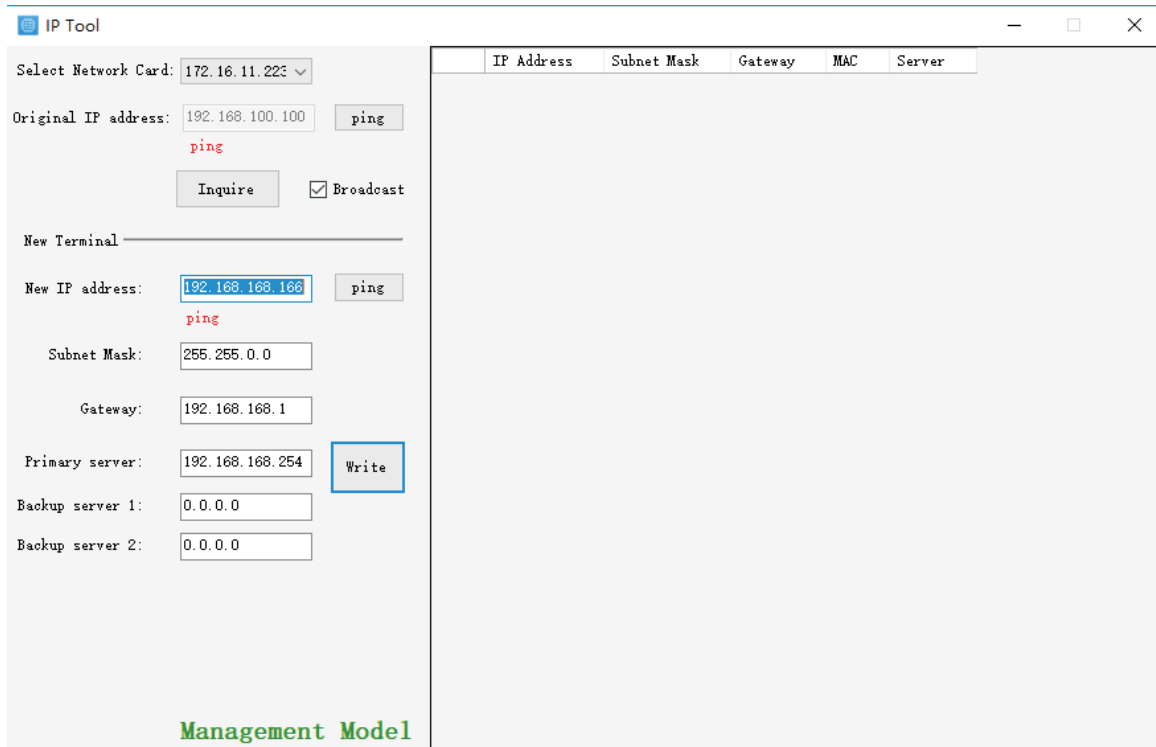
1. Installing software. Find the IP network broadcast system software installation package, double-click to open it, click on the program “terminal configuration tool”, after the installation of the program is completed, as shown below:



2. After the program is installed, a icon is generated on the desktop, as shown below:



3. Double-click the icon to run, and the “terminal configuration tool” window will pop up, as shown below:



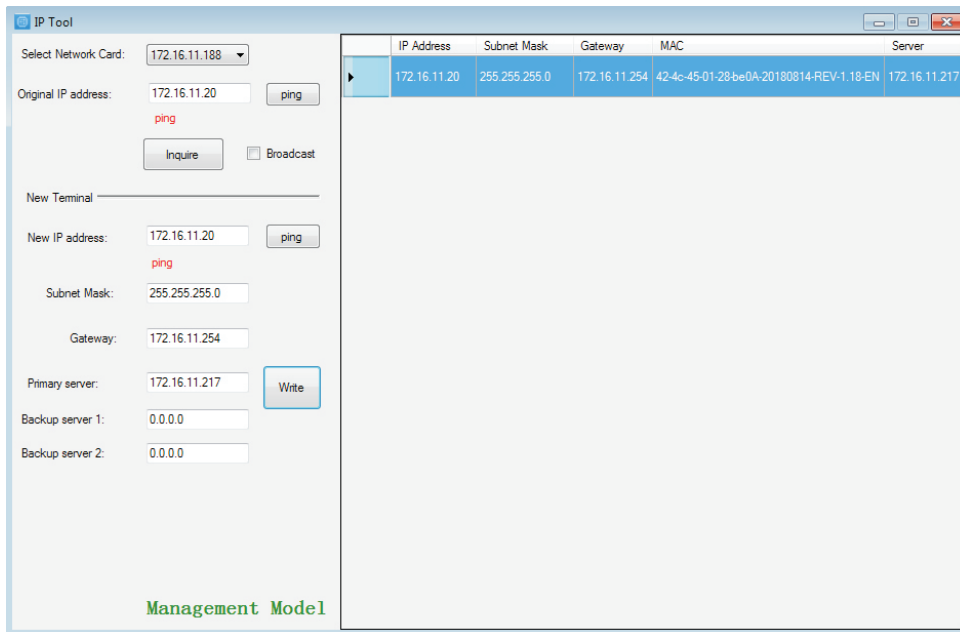
## 7. TERMINAL CONFIGURATION OPERATING INSTRUCTIONS

The configuration steps:

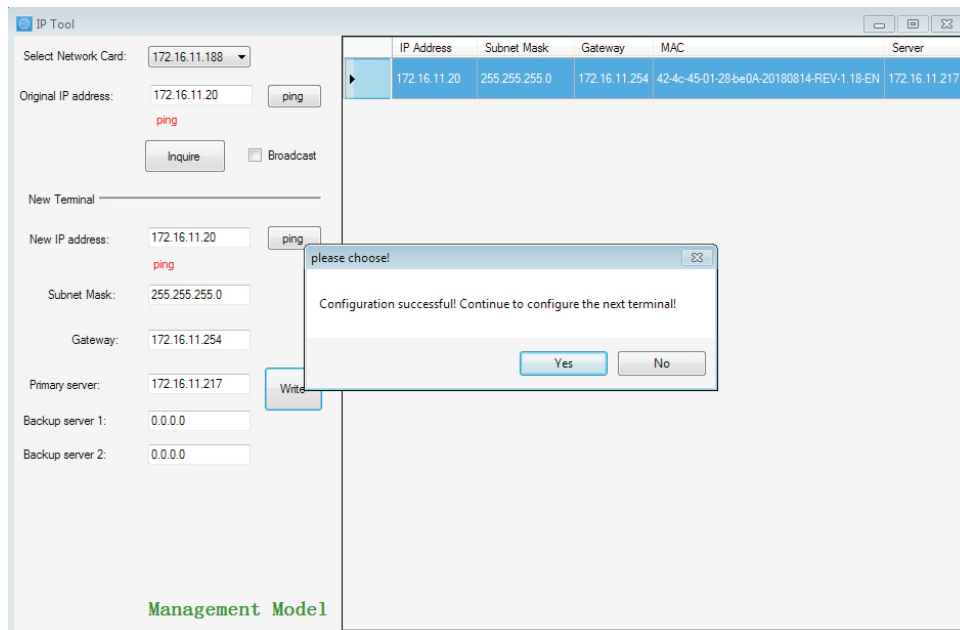
Step 1: Connect the terminal and the computer installed with the terminal configuration tool program by the network wire, Plug in the power until the terminal power indicator is on.

Step 2: double-click to open the shortcut icon of “ terminal configuration tool”, select the network card first, and left-click the “query” button in the window, to query the terminal’s original IP address. Please pay attention to: local IP address of the computer should be set in the same network segment as the terminal, because the default IP of terminal is : 192.168.168.166, so the computer’s local IP address should also be set to: 192.168.168.X, otherwise it maybe not match the IP terminal address.

Step 3: In the window of “Terminal Configuration Tool” , fill in correct “IP address”, “Subnet mask”, “Gateway IP” and “Server IP”, as below :



Step 4: left click on the “write” button, there will be a window prompt after the successful configuration; after that, left click on the “query” button, the parameters of the terminal will be re-read by the configuration program, if it display as the same as entered one, means that the configuration was successful.



## 7. TERMINAL CONFIGURATION OPERATING INSTRUCTIONS

Step 5: If multiple terminals are in the same network segment, you only need to modify the IP address of one terminal, it is needed to click on the terminal in the queried terminals list, then cancel the choice of broadcast on the left interface, modify the IP address and click for configuration.

The IP Tool interface consists of a control panel on the left and a data table on the right.

**Control Panel (Left):**

- Select Network Card: 172.16.11.188
- Original IP address: 172.16.11.20 (ping)
- Broadcast
- New Terminal: [Empty]
- New IP address: 172.16.11.20 (ping)
- Subnet Mask: 255.255.255.0
- Gateway: 172.16.11.254
- Primary server: 172.16.11.217 (Write)
- Backup server 1: 0.0.0.0
- Backup server 2: 0.0.0.0

**Data Table (Right):**

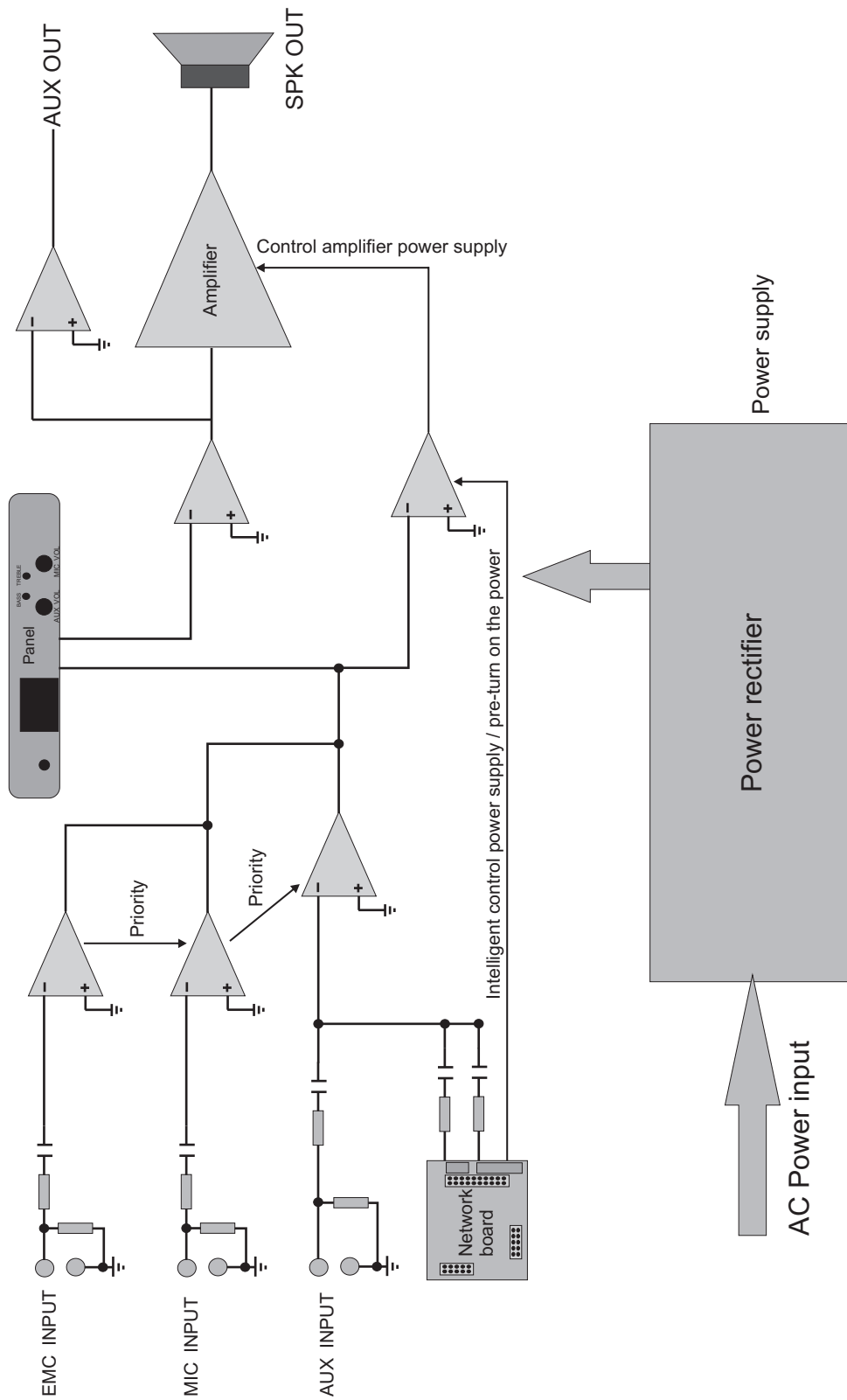
IP Address	Subnet Mask	Gateway	MAC	Server
172.16.11.20	255.255.255.0	172.16.11.254	42-4c-45-01-28-be0A-20180814-REV-1.18-EN	172.16.11.217
172.16.11.22	255.255.255.0	172.16.11.254	42-4c-45-00-4E-92F103RCT6-TR-20170225-REV-9.15-CN	172.16.11.228.0.0.0.0.0.0.0.0
172.16.11.31	255.255.255.0	172.16.11.254	42-4c-45-00-5D-10F103RCT6-TR-20170225-REV-9.15-CN	172.16.11.218.0.0.0.0.0.0.0.0
172.16.11.34	255.255.255.0	172.16.11.254	42-4c-45-00-51-4BF103RCT6-TR-20170225-REV-9.15-CN	172.16.11.218.0.0.0.0.0.0.0.0
172.16.11.37	255.255.255.0	172.16.11.254	42-4c-45-00-63-F02F103RCT6-20170606-REV-9.17-CN	172.16.11.228.0.0.0.0.0.0.0.0
172.16.11.38	255.255.255.0	172.16.11.254	42-4c-45-00-FF-002F103RCT6-20170606-REV-9.17-CN	172.16.11.214.0.0.0.0.0.0.0.0
172.16.11.45	255.255.255.0	172.16.11.254	42-4c-45-00-86-532F103RCT6-20170606-REV-9.17-CN	172.16.11.228.0.0.0.0.0.0.0.0
172.16.11.63	255.255.255.0	172.16.11.254	42-4c-45-00-17-15	172.16.11.228
172.16.11.66	255.255.255.0	172.16.11.254	42-4c-45-01-9F-902F103RCT6-20170606-REV-9.17-CN	172.16.11.218.0.0.0.0.0.0.0.0

**Second Screenshot (Bottom):**

The control panel shows the 'Write' button selected. A dialog box titled 'please choose!' is displayed over the table, containing the text: 'Configuration successfull. Continue to configure the next terminal!' with 'Yes' and 'No' buttons.

Notes: If the terminal data can't be queried or the network is blocked, the pop-up window will say Reconfigure the IP address or IP address writing error. In this case, please reconfigure the network, check the network cable, and turn off the firewall, etc.

# 8. BLOCK DIAGRAM

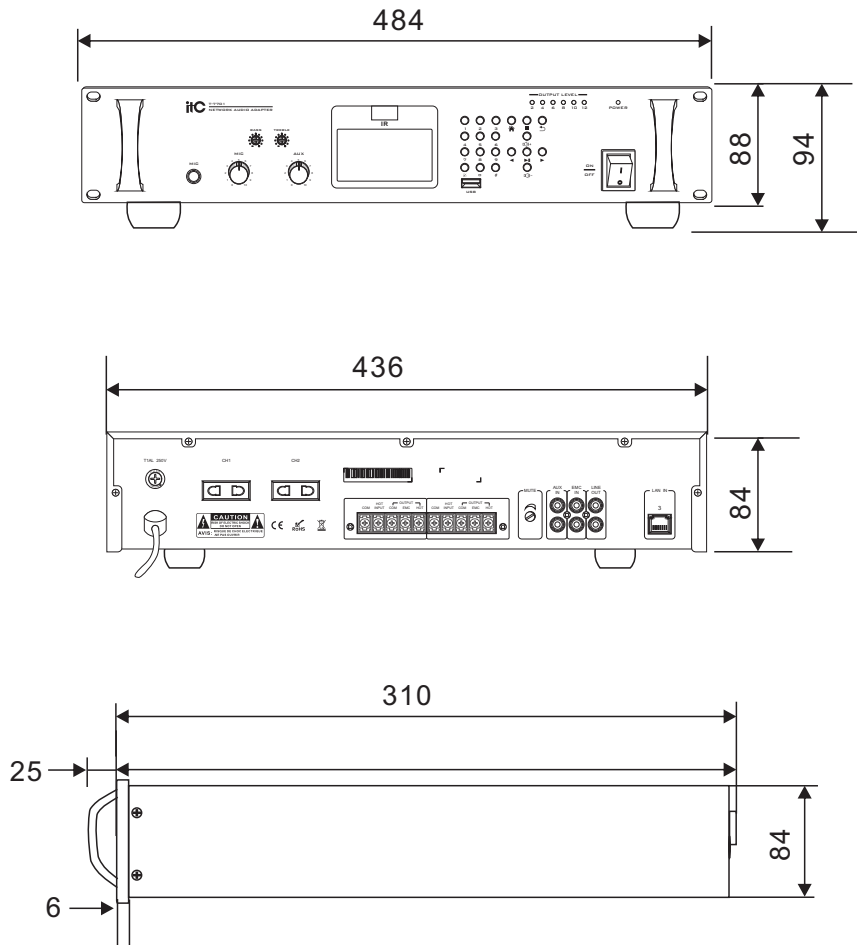


## 9. SPECIFICATIONS

Model	T-7701
Network Interface	Standard RJ45 input
Support protocol	TCP/IP, UDP, IGMP (Multicast)
Audio Format	Mp3
Audio mode	16 bit stereo CD tone quality
Sampling Frequency	8K~48KHz
Bit rate	8K~512Kbps
EMC Input Sensitivity	775mV (unbalance)
AUX Input Sensitivity	350mV (unbalance)
MIC Input Sensitivity	5mV (unbalance)
AUX output amplitude	1000mV 2 road lotus output interface
AUX output impedance	470 $\Omega$
Treble boost, attenuation	$\pm 10$ dB
Bass boost, attenuation	$\pm 10$ dB
Frequency response	80Hz~16KHz(+1dB, -3dB)
Power Consumption	10W
THD	$\leq 1\%$
S/N Ratio	$\geq 65$ dB
Environmental Temperature	5 $^{\circ}$ C~40 $^{\circ}$ C
Environment Humidity	20%~80% Relative humidity, without condensation
Power Supply	<input type="checkbox"/> ~110V 50Hz <input type="checkbox"/> ~110V 60Hz <input type="checkbox"/> ~120V 50Hz <input type="checkbox"/> ~120V 60Hz <input type="checkbox"/> ~220V 50Hz <input type="checkbox"/> ~220V 60Hz <input type="checkbox"/> ~230V 50Hz <input type="checkbox"/> ~230V 60Hz <input type="checkbox"/> ~240V 50Hz <input type="checkbox"/> ~240V 60Hz
Dimensions	484x303x88mm
Weight	5.2Kg

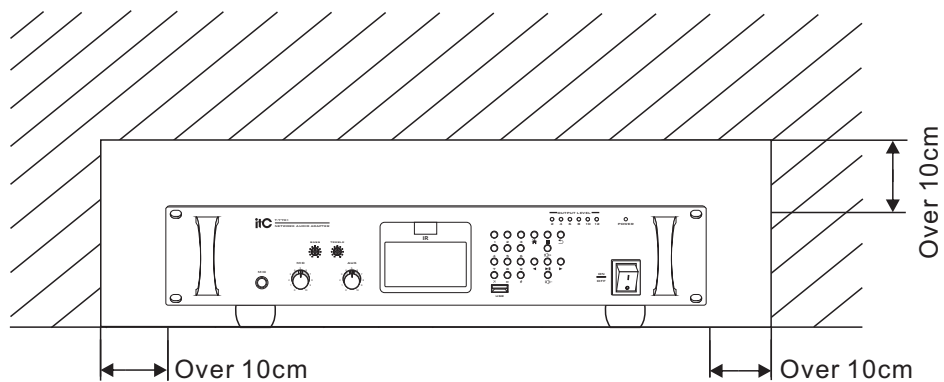
## 10. DIMENSIONAL DIAGRAM

UNIT :mm



Keep the unit's all sides over 10 cm away from objects that may obstruct air flow to prevent the unit's internal temperature rise.

UNIT :mm



# IP NETWORK PA SYSTEM

VersionV0.3

