

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.

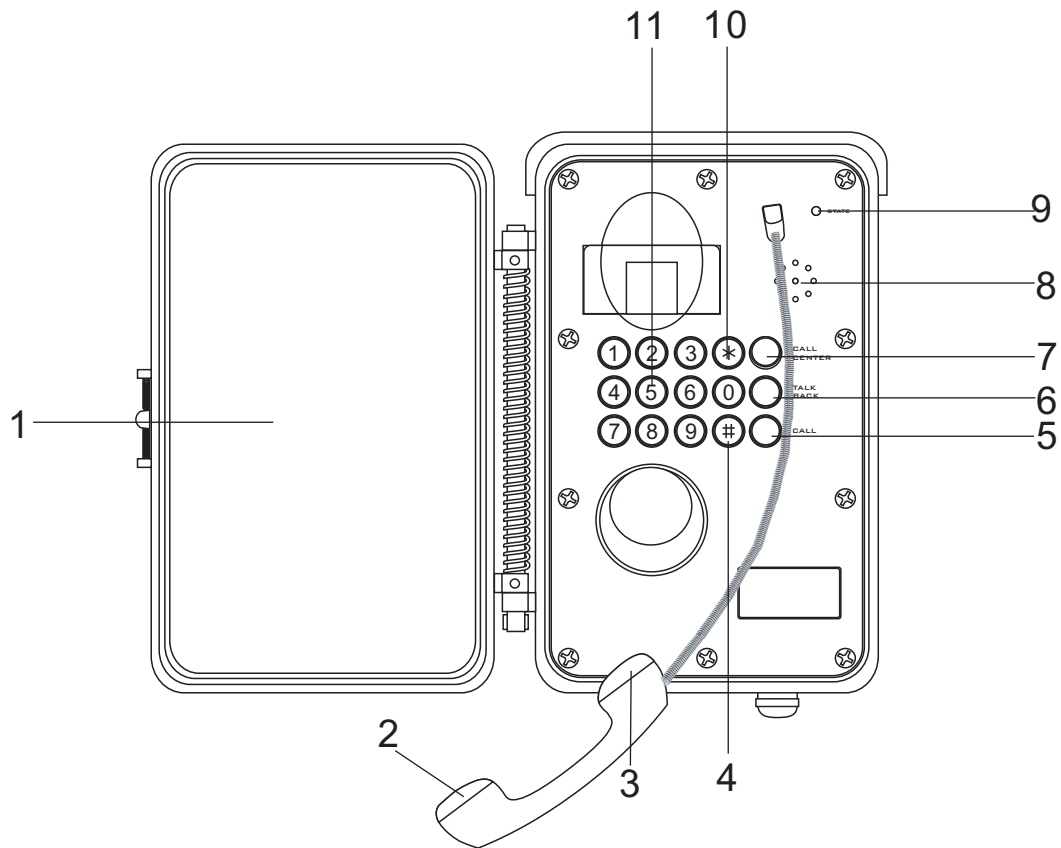
2. APPLICATION

T-7731 is a wall mounted explosion proof intercom terminal with dial buttons. It is dedicated designed for places including power plants, dams, steel plants, coal plants, mines, and so on, to realize two-way intercom, paging and background music broadcasting.

3. FEATURES

1. Adopting 5mm thickness aluminum alloy casting shell ,waterproof and dust-proof.
 2. Adopting embedded computer technology and DSP audio processing technology, high-speed industrial chip, to make the boot time less than 1 second.
 3. Built in 1 channel network audio decoding module, support TCP/IP、UDP、IGMP(multicast) protocol, realize 16-bit CD quality for audio signal network transmission.
 4. Built in voice intercom module, support full duplex intercom and call, work with high-performance DSP audio processing module to fulfil digital echo cancellation and audio compression function.
 5. Built in number buttons and function keys, support calling to any terminal, full duplex intercom, hands-free call, easy and convenient to operate.
 6. Built in incoming call buzzer, with an microphone and headset,for phone pick up
 7. Built in 30W(8Ω) class-D amplifier, to connect external 30w speaker for signal amplifying for large area paging and BGM broadcasting.
 8. Built in one short-circuit input and one short-circuit output ; the short-circuit input is to collect signal and data, the short-circuit output is suitable for monitoring video linkage.
 9. Support multiple call strategies, including call waiting, call forwarding and no answer reminding.
 10. Support customized function on time of call forwarding , no answering and call waiting.
 11. Support menu-free dialing, meeting mode, built in management function of meeting schedule.
 12. Support manual and automatic call forwarding function, the call forwarding number can be preset .
 13. Support preset shortcut media library, support online remote control to play the audio file.
 14. Support customized hanging up mode, it can be automatic hanging up or been hung up.
 15. Support one-key to call, one key to alarm and meeting discussion models.
 16. With IP 66 design, with alloy enclosure and removal-proof screws, explosion-proof, water-proof and puncture-resistant.
 17. Compatible with router, switch, bridges, gateway, Modem, Internet, 2G, 3G, 4G, multicast, unicast, etc.
 18. Easy to expand without geographical location limit, no need no need add management devices, share the current network, easy to install.
- * 24V DC power supply is optional to meet the demand of Solar battery power supply.

4. NAME AND FUNCTION OF PARTS

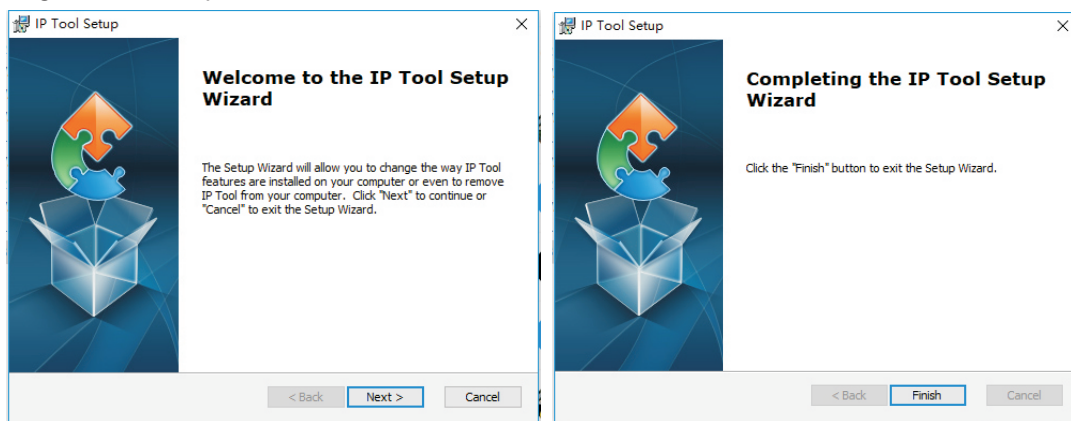


1. Surface cover, please open it during work, please close it when finish the work, to prevent equipment damage;
2. Telephone handset;
3. Telephone microphone;
4. Delete button;
5. Call button;
6. Intercom button;
7. Emergency button, when you press this button, you can make a quick call or call for help;
8. Ringing, ringing when the call is coming.
9. Work indicator;
10. Button to switch the external speaker. In the off-hook state, press this button to connect the external speaker; press this button again to disconnect the external speaker.
11. Number keys.

5. 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”.

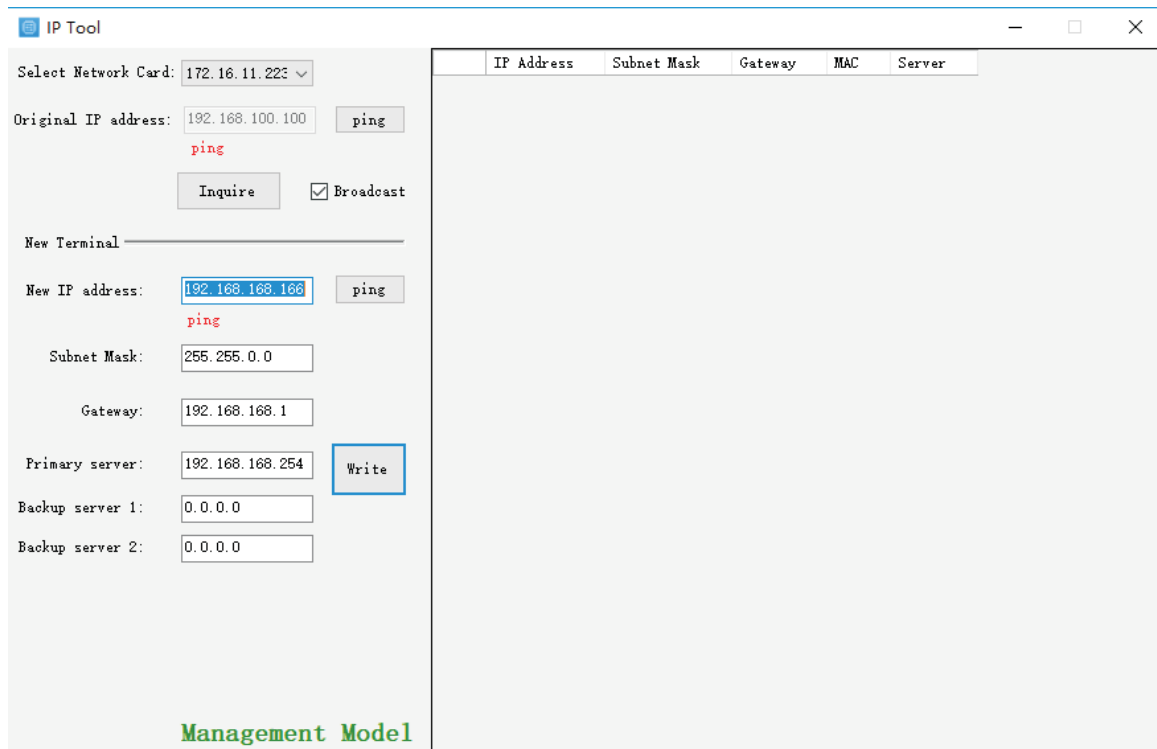
1. Installing software. Find the IP network broadcast system software installation package, double-click to open it, click on the program “terminal configuration tool”, after the installation of the program is completed, as shown below:



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:



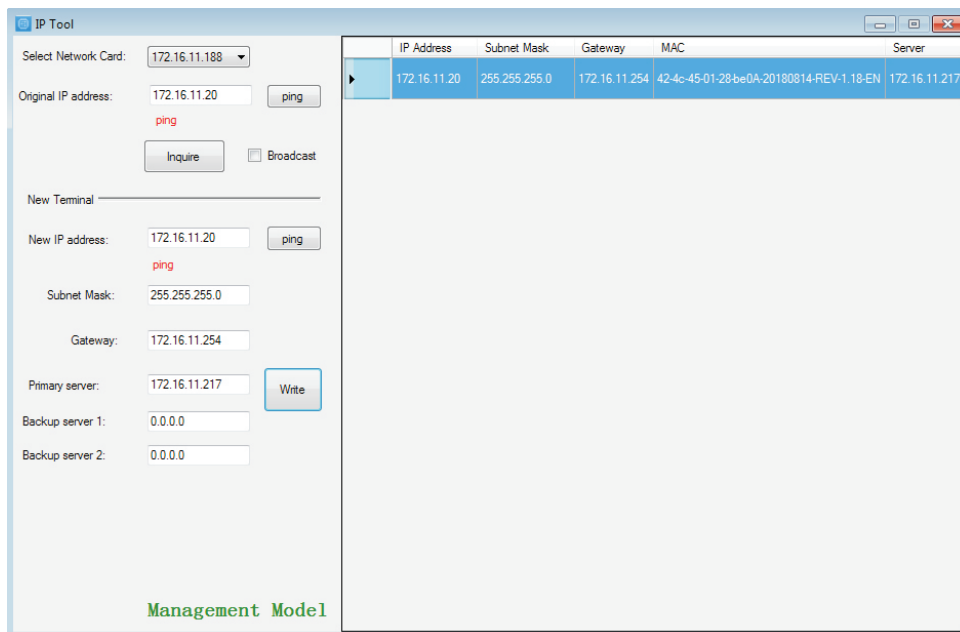
5. TERMINAL CONFIGURATION OPERATING INSTRUCTIONS

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 :



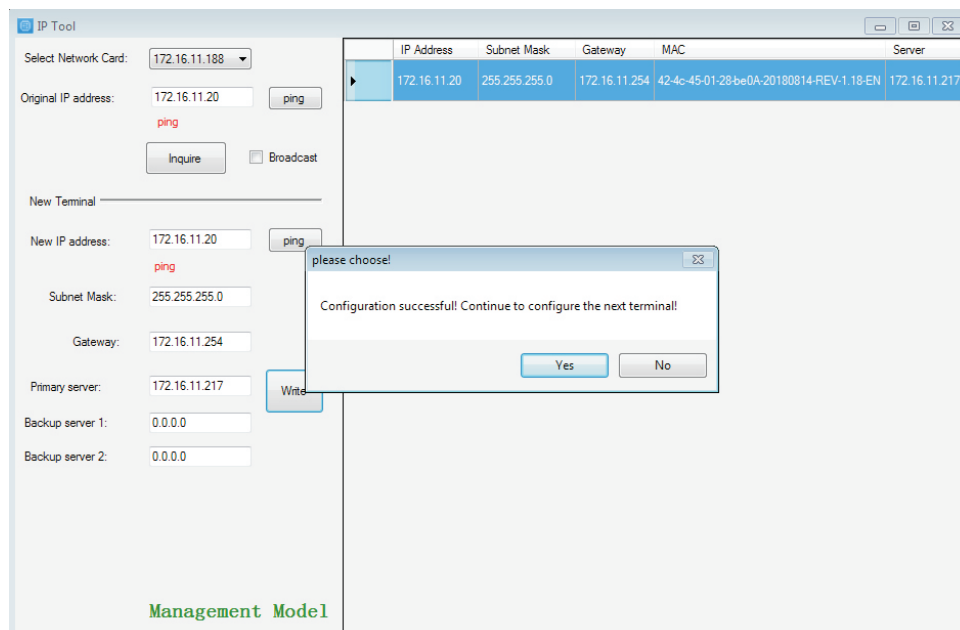
The screenshot shows the 'IP Tool' window with the following configuration fields:

- Select Network Card: 172.16.11.188
- Original IP address: 172.16.11.20 (with a 'ping' button)
- Inquire button and Broadcast checkbox
- New Terminal section:
- New IP address: 172.16.11.20 (with a 'ping' button)
- Subnet Mask: 255.255.255.0
- Gateway: 172.16.11.254
- Primary server: 172.16.11.217 (with a 'Write' button)
- Backup server 1: 0.0.0.0
- Backup server 2: 0.0.0.0

At the bottom left, it says 'Management Model'. On the right, there is a table with the following data:

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

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.



This screenshot is similar to the previous one, but with a dialog box overlaid on top. The dialog box has the title 'please choose!' and the text 'Configuration successful! Continue to configure the next terminal!'. It has 'Yes' and 'No' buttons.

5. 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 configuration panel on the left and a table of terminals on the right. The configuration panel includes fields for network card selection, original and new IP addresses, subnet mask, gateway, and primary/backup servers. A 'Write' button is used to save changes. The terminal table lists IP addresses, subnet masks, gateways, MAC addresses, and server names. In the top screenshot, the terminal with IP 172.16.11.20 is selected. In the bottom screenshot, the terminal with IP 172.16.11.34 is selected, and a success message dialog is displayed.

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.

6. OPERATION

2) Instructions:

Answer the phone:

The unit rings when there is a call. And you can pick up the handle to answer the call.

Make a call:

Pls lift the handle and dial No. when you need to make a call Put down the handle when you finish.

The work indicator display status is as follows:

- ①Normally idle status: red indicator alternate with green indicator : red indicator alternate with green indicator for each 1.0 second, it will be showed in red and green dual color;
- ②Emergency assistance, green indicator will be on: green indicator is on and red indicator is off, it will be showed in green;
- ③Answer/call waiting, green indicator flash slowly: red indicator is off and green indicator flash with interval of 1.0 seconds, it will be showed in green;
- ④Paging intercom, red indicator flash slowly: red indicator is flashing and green indicator is off, with interval of 1.0 seconds , it will be showed in red ;
- ⑤Environmental monitoring, red flash slow: red indicator is flashing and green indicator is off, with interval of 1.0 seconds, it will be showed in red ;
- ⑥Network failure, red flash quickly, red indicator is flashing and green indicator is off, with interval of 2.0 seconds, it will be showed in red .

IP address reset function operation:

When the machine is disconnected from the network, press and hold the "Emergency" button for 10 seconds, and then press the button for three times to restore the original factory IP address.

● Notice:

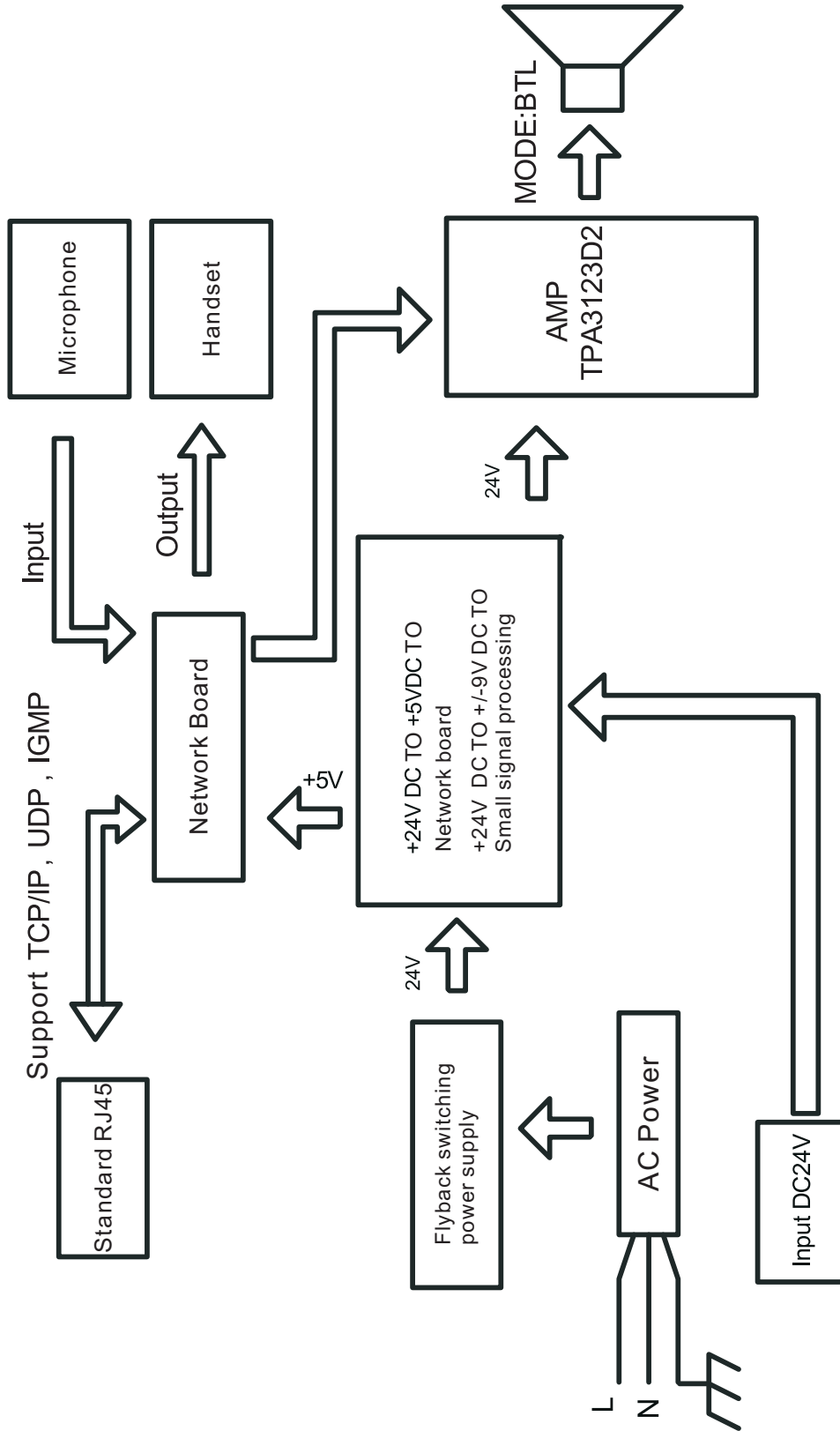
The factory terminal IP address is: 192.168.168.168

Subnet mask: 255.255.0.0

Gateway: 0.0.0.0

Server IP: 192.168.168.254

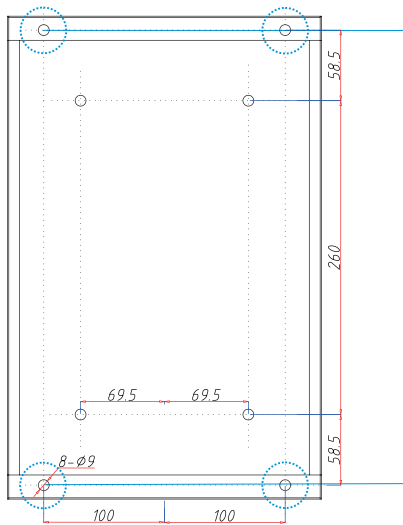
7. BLOCK DIAGRAM



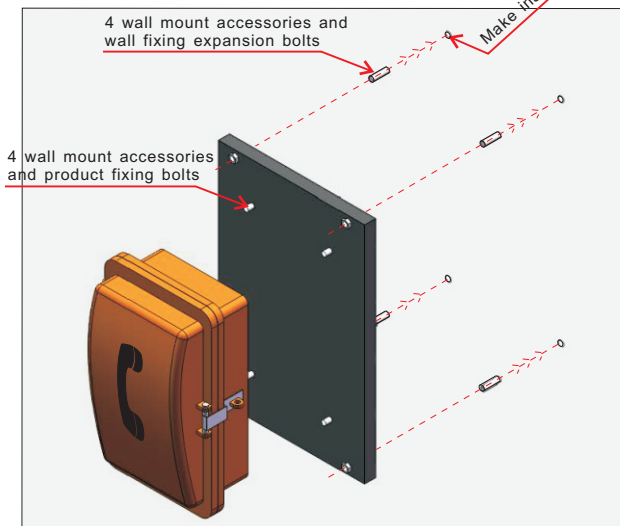
8. SPECIFICATIONS

Model	T-7731
Network Interface	Standard RJ45 input
Support protocol	TCP/IP, UDP
Audio Format	MP3
Sampling Rate	8K~48KHz
Transmission rate	100Mbps
Audio mode	16-bit CD sound quality
THD	≤1%
Frequency response	80Hz~16KHz +1dB/-3dB
SNR	>65dB
External Speaker Power	30W Industrial Standard Terminal
Operation temperature	-20°C~60°C
Operation humidity	20%~80% relative humidity without moisture condensation
Power Consumption	≤40W
Operating Voltage	~190-240V 50-60Hz
Protection class	IP66
Dimensions	320×205×120mm
Weight	5.5Kg

9. INSTALLATION METHOD



1. Make installation hole on wall. Put the terminal wall mount accessory at a proper height of the wall, and make 4 installation holes which distance size is 377*200mm.



2. Fixing product. Place the expansion bolts into the wall openings, and fix the product with the four bolts to the wall mount accessories, then fix the wall accessories on the wall by the nuts of the expansion bolts.



3. Installation finished.

IP NETWORK PA SYSTEM

VersionV0.1

