

# IP NETWORK INTERCOM TERMINAL User Manual



**IP NETWORK INTERCOM SYSTEM** 

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# Summarize

### **Safety precaution**

Please abide by the warning and the relevant safety tips.

Please take this manual in convenient place after you reading the guide for future reference.

#### Warning

The sign means there is potential safety hazard, when operate wrong may result in death or serious injury.

The sign is used to remind the user that attached is the important operation and maintenance data.

#### Setting and Installation

(1) Avoid being wet with the water.

Don't make the machine or exposed to rain water or other liquid contamination of the environment, or lead to fire or get an electric shock.

(2) Don't use unspecified voltage.

Using the marked voltage on the machine.

Using more than the logo of voltage could lead to fire or shock.

(3) Don't scratch the power cord.

Don't scratch the power cord or cut it.

Simultaneous, keep the power line far way from heated objects, put heavy things on it will lead to fires or electric shock.

#### Using machine

(1) In case of the anomalies

Please turn off the power supply immediately when finding the abnormal phenomena, please connect with the agency. if you continue to use, it will likely fires or shock.

•The smoke or odor of the machine.

The inside of the machine is flooded by water or foreign bodies intrusion.

·Machine falling or machine shell damage.

·The power cord damage(wire core is exposed of broken, etc)

·Fault(eg it can't network, no sound ect)

(2) Don't open the machine internal or modify the machine.

Do not let foreign matters invade the machines internal.

Don't let the metal items or inflammable objects inserting machine such as foreign inserting machines or throw into the vents machines internal, otherwise will likely cause fires or electric shock.

(3) Please do not touch it when thundering

To avoid electric shock, please do not touch the machine and the plug when lightning, etc.

(4) Please do not place containers with liquid or small metal objects on machine above.

If gets upset containers, and let the fluid inflow to the machine that will likely fires or cause shock.

(5) Do not open the machine internal or modify the machine.

The machine internal contains high voltage parts, once open the cover or modify the machine, it will likely fires or cause shock. All the maintenance and other machine modification should be operated by professional personnel.

(6) Maintenance and the precautions for not using in a long time.

While maintenance, if the machine is not using for 10 days or more, please shut off power supply switch for safety. If do not comply with this provision, it will likely cause electric shock or fires.

# **Product Presentation**

IP network intercom terminal is embedded with the independent intellectual property rights IP Audio digital network audio technology. The terminal equipped with power input interface, short circuit input and output, audio power output, audio line etc ports. Support full duplex intercom, receive broadcast etc functions.



- With a LCD display and a mini size, available to be table topped or wall-mounted.
- Double buttons, with a full-duplex intercom.
- With a built –in speaker and a microphone, available to make a hands-free call and receive the broadcast.
- With the audio output and the microphone input to connect the earphone.
- Works everywhere as long as Ethernet available.

# Hardware Interface Introduction

Front



①Speaker: Restore the remote live voice.

2 LCD Screen: Show terminal status.

③Buttons: Both are calling keys, press any button to call the service software designated terminal.

④ Pickup microphone: Pick up the live and intercom voice.





①Power input: connect to 12V DC power supply (with anti-power connection and anti-protection circuit).
 ②Alarm input/ output:

Alarm input port has two pins, the two pins' state won't affect the audio terminal working state in normal use, only when the two pins are short sub, then the audio terminal will make some special operations automatically (eg: generate an alarm signal and sent to the server or give an alarm from the local terminal etc.) Alarm button, signal generator all these devices can access to this port;

Alarm output port has three pins. Usually, pins 4 and 5 are in an open state. When the terminal receives an alarm output signal from the server, the two pins will be automatically shorted together to act as an alarm (Such as turning on the power. Control door lock). The maximum carrying current of the alarm output port is 500mA, and the maximum voltage is AC100V (or DC24V).

③Network input port: Use the cable to connect server and terminal.

Side





# Introduction

# **Packing List**

IP network intercom terminal contains the following accessories. Please check the accessories before installation, if you find any missing, please contact your supplier.

IP Network Intercom Terminal 1PCS



(2) Power adapter (DC12V/1.5A) 1PCS(Optional)



(3) Plastic expansion suit (F7) 3PCS



(4) Half round head Phillips screw (ST4\*25) 3PCS



(5) Wiring Terminal (3.96-5P) 1PCS



(6) Microphone pole (IM-320B) 1PCS



(7) Sponge cover 1PCS







#### (9) Quick Install Manual 1PCS



# **Connection Diagram**



(1) Connect one end of the power adapter to the DC12V of the IP network intercom terminal, and the other end to the power socket

 $(2)\ \mbox{Alarm}\ \mbox{output}\ \mbox{interface}\ \mbox{can}\ \mbox{be}\ \mbox{connected}\ \mbox{to}\ \mbox{the}\ \mbox{electric}\ \mbox{lock}.$ 

(3) Alarm input interface can be connected to the alarm button or other correlation signals.

(4) Terminal LAN interface connect to the switcher.



# **Basic Network Setting**

Connected the terminal according to the "Quick Installation Guide", turn on the power, and setting the network parameters of the terminal according to the on-site use environment. There are two ways:

#### **Terminal Equipment Scanning Tools**

(1) Run "IP Audio Terminal Configuration Tool" and enter the default password "123456".



(2) From the right menu choose [Mandatory method configuration], then in the [terminal parameters] fill in the correct parameters, click "send parameters" button to complete the IP parameters Settings.

Wote: All terminals suppo Warning: 1. Make use of interconn 2. When using net switch,	rt, used ection r , only d	1 ne 20	with t cal nnect	ca le	utio ; one f	on.	minal;
erminal parameter		-	_				
Terminal ID:	1		1		₽		
Server IP:	192	ii.	168	ŵ	0	2	192
Terminal IP:	192	•	168	•	0	•	101
Gateway IP:	192	G.	168	12	0	×.	1
Subnet Mask:	255		255		255	:	0
Terminal Port:	2046		(Def:	aul vi s	t 20	046 . d i	) fvl
Server Port:	2048	ī	(Def (spe	aul	lt 2 al m	D48 odi	3) (fv)
			S	end	l par	ал	eters
🔽 Safety checks (Ch	eck mor	e	than	0	ne t	er	minal)

#### Note:

1. When using the Windows 7/Win 10 operating system, please use the administrator mode, and then shut down t he firewall and the related software.

2. Terminal equipment scanning tools can only configure one terminal. When using this method, please make sure that a computer is only corresponding to one target terminal.

3. If you need IP audio terminal configuration tools, please contact our customer service.

#### Web Page Mode

Enter the IP network intercom terminal web interface, then revise the terminal network parameters according to the live environment, after finish Setting, click "save".

The detailed operation steps please refer to the custom terminal network parameters setting.



# **User-Define Terminal Parameters**

# Login Web Interface

(1) Enter the IP address of the terminal in the browser address bar (the factory default IP is 192.168.1.101. When the network cable is not plugged in, press any key for about 10 seconds to broadcast the device IP information) and then press the enter key.

Note: Google browser is recommended, IE browser is not supported.

New Tab	×	+
$\leftrightarrow \rightarrow G$	192.168.1.101	
Apps	3	
opps		

(2) In the login window enter the user name and password (the default is admin).

Intercom te	erminal
옷 admin	
₽	
English	
Login	

(3) Press [Login] to enter the IP network intercom terminal web page. The home page displays the running status of the terminal



		English 🗸	
O Running state	Running state		
🗟 Basic settings 🛛 🖌			
<ul> <li>A advanced setting ✓</li> <li>A Equipment maint ✓</li> </ul>	MAC address 7a:03:a7:87:4c:8d		
	IP address 192.168.1.101		
	Subnet mask 255.255.255.0		
	Default gateway 192.168.1.1		
	Preferred DNS Server 192.168.1.1		
	Standby DNS server 192.168.1.13		

# **Basic Setting**

# **Network Parameters**

Set the network parameters, please modify the parameters in the network parameters according to the on-site environment. After the setting is completed, click [Save] to restart the device to take effect.

				Engl	lish 🗸	
○ Running state	Network parameters					
			l i i i i i i i i i i i i i i i i i i i	Save		
Protocol settings	MAC address	IP address				
ନ Quick call	7a:03:a7:87:4c:8d	192.168.1.101				
Offline intercom						
Intercom param						
Broadcast para	Subnet mask	Default gateway				
Iistener paramet	255.255.255.0	192.168.1.1				
🖵 Alarm parameters						
🔒 advanced setting 💙	Preferred DNS Server	Standby DNS server				
읍 Equipment maint Y	192.168.1.1	192.168.1.13				

### Parameters meaning as following:

MAC address	Terminal physical address, not editable。
IP address	Terminal IP address, the factory default is 192.168.1.101
Subnet mask	Terminal networking Subnet mask
Default gateway	Terminal network gateway
Preferred DNS	Terminal networking preferred DNS conver ID
server	
Secondary DNS	Terminal networking secondary DNS server IP
server	Terminal networking secondary DNS Server IP



**Protocol settings** 

Set the communication protocol between the terminal and the server, and the server platform parameters of the terminal

login. After setting, click [Save], the device will be restarted automatically, and the reboot will take effect.

					English 🗸	
C Running state	Protocol settings					
<ul> <li>Basic settings</li> <li>Retwork param</li> </ul>				Save		
Protocol settings	Transport protocol					
ନ Quick call						
<ul> <li>Offline intercom</li> <li>Intercom param</li> </ul>		Password				
🗈 Broadcast para						
<ul> <li>Iistener paramet</li> <li>Alarm parameters</li> </ul>	Server IP 192.168.1.13	SIP Server Port 5060	NAS Server Port 2048			
읍 advanced setting ♥ 문 Equipment maint ♥						
	SIP local Port 5060	NAS local Port 2046				
	Jitter buffer enable Disable V	Adaptive switch Disable V	Jitter buffer size 80			
<	Time zone switch Disable V					

### Parameters meaning as following:

	Set the protocol for the normal communication between the terminal and the				
Transport	server, support SIP and NAS (internal communication) protocol, the default is				
protocol	SIP protocol.				
	Support registering to a third-party standard SIP server.				
	The unique number that identifies the device, cannot be repeated with the				
	terminal or other hosts, the factory default is 1				
	The password for the terminal to log into the SIP server. Default is 1234. NAS				
Deserved	protocol has no password setting option.				
Password	Note: The password must be the same as the password of the corresponding				
	terminal on the server, otherwise the terminal cannot log in to the server.				
	Set the server address or domain name where the terminal is located. The				
Server IP	factory default is 192.168.1.13.				
	If the communication protocol between the terminal and the server is SIP, only				
	the SIP server port needs to be set (the default is 5060).				
Server Port	If the communication protocol between the terminal and the server is NAS				
	protocol, just set the NAS server port (default is 2048).				
	Note: Port is not allowed to be modified except under special circumstances.				
	Set the local communication port of the terminal.				
Local port	If the communication protocol between the terminal and the server is SIP				
	protocol, just set the SIP local port (default is 5060).				



	If the communication protocol between the terminal and the server is NAS				
	protocol, just set the NAS local port (default is 2048).				
	Set whether to enable jitter buffer function, when it is enabled, set the jitter				
Jitter buffer	buffer size.				
enable, jitter	If it is enabled, it can improve the audio quality in a poor network environment				
buffer size	(such as network packet loss).				
	It is disabled by default.				
	Set whether to enable adaptive function.				
	If it is enabled, it can improve the audio quality in a poor network environment				
	(such as network packet loss).				
Adaptive switch	Note: Adaptive and audio jitter buffer enable function are only valid				
	under SIP protocol. It need to simultaneously "enable" automatic error				
	correction and packet loss retransmission in "Network Adaptive" in				
	"Basic Settings"-"Integrated Settings" of service software.				

# **Quick Call**

The quick call parameter is the shortcut function of the terminal number key 0-9, which can be configured as fast intercom or fast broadcast (default is fast intercom).

(1) Quick intercom: Set the target terminal number corresponding to the number keys 0-9, and define the shortcut key function as "quick intercom". After the save takes effect, directly press the corresponding number key to call to the designated one with one key the goal.

(2) Quick Broadcast: Set the partition number corresponding to the number keys 0-9, and define the shortcut key function as "Quick Broadcast". After saving takes effect, directly press the corresponding number key to initiate a broadcast to the designated partition with one key.

**Note:** After the shortcut call parameter settings are saved, manually restart the device to take effect. (You can restart the device by pressing the [Restart] button in the "Device Maintenance"-"System Tools" interface).

					English V	
C Running state	Quick call					
Basic settings  Basic settings				Save		
😨 Protocol settings	Quick call when pressing <0> key(terminal/zone)	Quick call when pressing <1> key(terminal/zone)	Quick call when pressing <2> key(terminal/zone)	Quick call when pressing <3> key(terminal/zone)		
Offline intercom	Quick call when pressing <4> key(terminal/zone)	Quick call when pressing <5> key(terminal/zone)	Quick call when pressing <6> key(terminal/zone)	Quick call when pressing <7> key(terminal/zone)		
Intercom param	4 Quick call when pressing	5 Quick call when pressing				
🗈 Broadcast para	<8> key(terminal/zone) 8	<9> key(terminal/zone) 9				
Iistener paramet						
Alarm parameters						
🔒 advanced setting 🗸	Shortcut function definition Quick talk  V					
🔒 Equipment maint 🛩						
<						

# Offline intercom

Set whether to enable the offline intercom function. After the settings are saved, manually restart the device to take effect. (You can restart the device by pressing the [Restart] button in the "Device Maintenance"-"System Tools" interface)

**Enable:** Turn on the enable switch, and then press the [Add Item] button to add offline call targets (up to 10 targets can be added). Then set the ID of the target terminal + the corresponding IP: port in the offline list (for SIP protocol, set the SIP port, and for NAS protocol, set the NAS port), click [Save] after setting, and restart the device to take effect.

When the device is offline, press the terminal Talk key + offline ID to be called + OK key to initiate an offline intercom.

**Disable:** Turn off the "Enable" switch and then click [Save] to turn off the offline intercom function.

						English 🗸	
C Running state	Offline intercom						
🔹 Basic settings 🛛 🔺							
Retwork param					Save		
Protocol settings	Enable Add item						
ର Quick call							
D Offline intercom	ID number	IP address	SIP Port	NAS Port	Operation		
Intercom param							
🗈 Broadcast para							
listener paramet							
🖵 Alarm parameters							
🔒 advanced setting 👻							
🗄 Equipment maint 🗸							
<							

#### **Intercom Parameter**

Set the terminal intercom parameters, click [Save] after modification, and the reboot will take effect.

C Running state	Intercom parameters				
Basic settings				Save	
🗟 Network param					
Protocol settings	Input Automatic recogniti 🗸	Input volume 9 V			
ର Quick call					
Offline intercom	Output	Output volume			
Intercom param	Automatic recogniti 🗸				
Broadcast para	· · · · · · · · · · · · · · · · · · ·				
Iistener paramet	Ringtone enable	Ring	Ring volume		
🖵 Alarm parameters	Enable 🗸 🗸	Automatic recogniti \vee			
🔒 advanced setting 💙					
🔒 Equipment maint 🛩	Receiving intercom Auto answer V	Echo cancellation	AGC		
<					

Parameters meaning as following:

Input	Terminal intercom audio input mode, can choose microphone, line input,



	automatic recognition.
Input Volume	The total volume input by the terminal during the intercom, range: 0-15
Quitaut	Terminal intercom audio output mode, can choose microphone, line input,
Output	automatic recognition.
Output Volume	The total volume output by the terminal during the intercom, range: 0-15
Dingtono onoblo	Set whether to enable ringtone function. It is enable by default.
Ringtone enable	When it is disabled, it won't have ringtone when a call comes in.
Pinging	When a call comes in, the ringing audio output mode can be selected from
Kinging	speaker, line output, and automatic identification.
Ringing Volume	When a call comes in, the ringing output volume, range 0-15
	As the intercom receiver, you can choose to answer automatically or
Receive Intercom	answer manually. The default is automatic answering. When manual
Receive intercom	answering is selected, you must press the intercom key to answer the
	intercom.
Echo cancellation	Enabled: supported.
	Forbidden: not supported.
AGC	Enabled: supported.
////	Forbidden Construction Forbidden Construction

# **Broadcast Parameters**

Set the terminal broadcast parameters, click [Save] after the modification is complete, and restart the device to take effect.

		English 🗸	
C Running state	Broadcast parameters		
😨 Basic settings 🔺			
Network param	Save		
Protocol settings	Input Input volume Automatic recogniti V 9 V		
ନ Quick call			
Offline intercom	Output Output volume		
Intercom param	Automatic recogniti V 9 V		
🗈 Broadcast para			
🗈 listener paramet	Broadcast tone		
🖵 Alarm parameters			
🔒 advanced setting 🗸			
🔒 Equipment maint 🗸			
<			

### Parameter meaning as following

Increate	Terminal broadcast audio input mode, can choose microphone, line input,
Input	automatic recognition.
Input volume	The terminal broadcasting total input volume, range:0-15
	Audio output mode of broadcasting, loudspeaker, line output and automatic
ouipui	recognition can be selected.
Output volume	The terminal broadcasting total output volume, range:0-15
Broadcast tone	Enabled Broadcast prompt will be played when a broadcast is initiated.



	Default is enabled.
	Forbidden Ethere is no announcement tone when the broadcast is
	initiated.

# **Listener Parameters**

Set the terminal monitor parameters, click [Save] after the modification is complete, and restart the device to take effect.

C Running state	listener parameters
🚦 Basic settings 🔺	
😨 Network param	3ave
Protocol settings	Input Input volume Automatic recogniti V 11 V
ନ Quick call	
Offline intercom	
Intercom param	
E Broadcast para	
🗈 listener paramet	
🖵 Alarm parameters	
🗄 advanced setting 💌	
🔒 Equipment maint 🗸	
<	

Parameter meaning as following:

Input Audio input mode when terminal is monitored, microphone, line input automatic recognition can be selected	
Input Volume	When terminal is monitored ,the volume arrange is 0 to 15.



## **Alarm Parameters**

Set the terminal alarm input parameters, click [Save] after the modification is complete, and restart the device to take

#### effect.

		English 🗸	
○ Running state	Alarm parameters		
🚦 Network param	Save		
Protocol settings	Input channel Alarm type 1 V Open V		
ଲ Quick call			
Offline intercom	DTMF alarm output		
Intercom param	Disable V		
Broadcast para			
🗈 listener paramet			
🖵 Alarm parameters			
igoplus advanced setting $igodot$			
盘 Equipment maint ♥			

### Parameter meaning as following:

Input channel	According to the alarm parameters to obtain the corresponding channel
	number, the default is 1.
	It have normally open and normally closed two types, the default is is normally
	open.
Alarm types	Normally open: when closed, it send alarm input signal to server.
	Normally closed: when disconnected, it send alarm input signal to server.
DTMF alarm	Set whether to enable DTMF remote door unlocking function. The default is
output	disable.



# Web Management

The password for logging in to the web page can be modified in the Web management parameters. The default password is "admin". After the password modification is saved, restart the browser to take effect.

○ Running state	Web Management	
Basic settings	Save	
🗄 Web Manageme	WEB Old Password	
盘 Equipment maint ♥		
	WEB New Password	
<		

# Language Setting

In any interface, click the language on the upper right corner to set the display language of the terminal, which supports simplified Chinese and English.

Note: You can also log into the web page by selecting the corresponding language in the web login interface.



#### **Equipment maintenance**

#### system tools

#### (1) Reboot Device

In the [Device Maintenance]-[System Tools] interface, click the [Restart] button, and the device will restart.

#### (2) Restore factory setting

In the [Device Maintenance]-[System Tools] interface, click the [Restore Factory Settings] button to restore all the device settings to the factory default state.

#### (3) Terminal Update

In the [Device Maintenance]-[System Tools] interface, click [Select File], select the firmware upgrade file provided by the manufacturer in the pop-up selection box, and press the [Start Upgrade] button to upgrade.

Note: Do not cut off the power during the upgrade process, otherwise the upgrade may fail and the device may malfunction. The upgrade process takes about 45s, and the device will automatically restart after the upgrade is completed. If you need to upgrade the firmware, please contact our company's technical support.

		English V	
C Running state	System tools		
🗟 Basic settings 🛛 🛩			
🔒 advanced setting 💙	Restart		
🔒 Equipment maint 🔺	Redart		
System tools			
Ø System log	Restore factory settings		
Ø         Version	Restore factory settings		
	Terminal upgrade		
	Terminal upgrade		
	L Select file Start upload		
<			



# System Log

The terminal can record the operation of the equipment and generate a log. Click the [download] button on the right to download the system log for viewing (TXT format).

				English ∨ Radmin ✓
C Running state	System log			
😨 Basic settings 🛛 🗸				
🔒 advanced setting 🗸	Number	Name	Operation	
🔒 Equipment maint 🔺		web_log.log		
🕸 System tools				
System log				
\$। Version				
<				

### Version

Enter the version information interface, you can view the terminal software version.

		English 🗸	
C Running state	Version		
🗟 Basic settings 🛛 🗸			
🗄 advanced setting 💙	Firmware version [Std_2020_EN]_1.1.5_20230407 Build 02		
🕸 System tools			
ि System log			
Ø Version			



# **Basic Function**

#### **Initiate Intercom**

Press the left key or the right key to directly call the called terminal designated by the server.

#### Remarks:

(1) If the communication protocol between the terminal and the server is the SIP protocol, the call destination of the left and right buttons can be set in the "terminal management" in the service software, "call destination" corresponds to the left button, and "extended call destination" corresponds to the right button, which can be set Multiple call targets, when the called party is busy, it can automatically transfer the call to the next one,

(2) If the communication protocol between the terminal and the server is the NAS protocol, the call destination of the left and right buttons can be set in the "Terminal Settings"-"Terminal Properties" in the service software, and the "call button" corresponds to the left button, and the "extended call button" Corresponding to the right button, multiple call targets can be set. When the called party is busy, the call to the next party can be automatically transferred.

For specific operations, please refer to the relevant service software operation guide.





SIP server call mapping settings

NAS server call mapping settings

# **Offline Intercom**

Enable offline mode in the "offline intercom" parameter on the web page, and correctly set the target terminal to be called when offline.

When the device is offline, press the left or right button of the terminal to initiate an offline intercom to the designated terminal.

#### **Receive Intercom**

The default is automatic answering. When other terminals call in, they will answer the call automatically after ringing.

If the answering method is set to manual answering in the "Intercom Parameters" on the Web page, you need to press the left or right button to accept the call request.

#### **Receive Broadcast**

In the case of server authorization, the terminal can receive server broadcasts and broadcasts initiated by other terminals.

Note: The broadcast output channel can be set in the "Broadcast Parameters" on the Web page.



# **Malfunction Test**

#### The terminal is always offline

1).Check the software server and the main controller is normal opened or not. It's required to close all firewall before open the software server (including system built-in firewall and other antivirus software firewall)

2).Check the network connection is normal or not. after the terminal powered on, the network port green light is norm on, meantime the orange light will be short and fast flash, it means the network cable connect normal. If the network port green light is not on, it means the network hardware connection problem, please check the network cable and switcher of terminal whether they work normal, damaged and disconnect or not etc.

3).Check the terminal's IP setting. Please check the terminal ID, sever IP, local IP, gateway IP etc parameters

#### Web display is abnormal?

Clear the cache or change the browser.

#### Unable to conduct an offline intercom

- 1. Check whether the offline mode is enabled in "Basic Features"-"Offline Intercom" on the web page.
- 2. Check whether the call destination set in "Offline Intercom" is correct, and the correct format is ID+IP: port.
- 3. The other party's terminal does not support offline intercom.

#### How to change the account and password for logging in to the web page?

- 1. Click the password setting in the web page;
- 2. Enter the old user name and old password in the original user name and original password respectively;
- 3. Enter the new user name and password in the new user name and new password;
- 4. Enter the new password again in the password confirmation;

5. Click Save;

The new username and password will take effect after restarting the device.

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