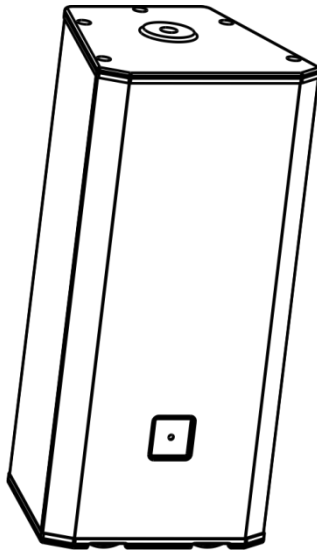




Network Column Loudspeaker

USER MANUAL



Contents

MANUFACTURER'S REFERENCE	1
LEGAL STATEMENT	1
TRADEMARK NOTICE	1
DISCLAIMER	1
PRIVACY PROTECTION REMINDER	2
COPYRIGHT STATEMENT	2
ABOUT THIS MANUAL	2
IMPORTANT SAFETY PRECAUTION	3
DURING INSTALLATION	3
DURING USE	3
1. SYSTEM APPLICATION EXAMPLES	4
1.1. ABOUT THIS MANUAL	4
1.2. SYSTEM REQUIREMENTS	4
2. INTRODUCTION TO SYSTEM SCENARIO FUNCTIONS	4
2.1. SIP TO LOCAL BROADCAST	5
2.2. VMS TO LOCAL BROADCAST	6
2.3. BLUETOOTH TO LOCAL BROADCAST	7
2.4. MEDIA FILES TO LOCAL BROADCAST	8
3. STATUS INDICATOR	9
4. PRODUCT INTRODUCTION	10

4.1. PRODUCT FEATURES	10
4.2. PRODUCT SPECIFICATION	11
4.3. PRODUCT INTERFACES	15
4.4. PRODUCT PACKING LIST	17
4.5. PRODUCT DIMENSIONS (UNIT: MM)	18
4.6. PRODUCT INSTALLATION	21
5. PRODUCT CONFIGURATION	22
5.1. WEB PAGE PARAMETER CONFIGURATION	22
6. TROUBLESHOOTING	42

Manufacturer's Reference

SPON Communications Co., Ltd is the holder of the following certificates:

- ISO 9001:2015 QUALITY MANAGEMENT SYSTEM CERTIFICATE.
- ISO/IEC 20000-1:2018 INFORMATION TECHNOLOGY-SERVICE MANAGEMENT CERTIFICATE OF CONFORMITY.
- ISO/IEC 27001:2022 INFORMATION SECURITY MANAGEMENT SYSTEM CERTIFICATE OF CONFORMITY.
- ISO 14001:2015 ENVIRONMENTAL MANAGEMENT SYSTEM CERTIFICATE.
- ISO 45001:2018 OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM CERTIFICATE.
- All development, production and distribution processes of the company are managed by this standard and guarantee high quality, technical level and professional aspect of all our products.

Legal Statement

Trademark Notice

SPON 世邦, **SPON** is a registered trademark of SPON Communications Co., Ltd., Other trademarks or company names that may be mentioned in this document are the property of their respective owners.

Disclaimer

Please read this user manual carefully before using this product and follow all instructions and suggestions mentioned therein, SPON is not responsible for any damages caused by misuse of this product due to violation of this manual.

To the extent permitted by applicable law, under no circumstances will the company compensate for any special, incidental, indirect, or consequential damages arising from the relevant content and the products described in this document, nor for any loss of profits, data, goodwill, document loss or expected savings.

The products described in this document are provided "as is". Unless required by applicable law, the company does not provide any express or implied warranty for all contents in the document, including but not limited to merchantability, quality satisfaction, fitness for a particular purpose, non-infringement of third-party rights, etc.

If you connect the product to the Internet, you will bear your own risks, including but not limited to the possibility that the product may be attacked by network, hacker, virus infection, etc. The company is not responsible for the abnormal operation of the product, information leakage and other problems caused by this, but we will provide you with product-related technical support in a timely manner.

When using this product, please strictly abide by applicable laws. If this product is used to infringe the rights of a third party or for other improper purposes, The company shall not bear any responsibility.

If the content of this manual conflicts with applicable laws, the legal provisions shall prevail.

Privacy protection reminder

When you install our products, you may collect personal information such as face and fingerprints. When using the products, you need to comply with the privacy protection laws and regulations of your region or country to protect the legitimate rights and interests of others. For example, provide clear and visible signs to inform relevant rights holders of the existence of video surveillance areas and provide corresponding contact information.

Copyright Statement

The copyright of this guide belongs to SPON Communications Co., Ltd. (Hereinafter referred to as SPON), all rights are reserved.

Without the written permission of our company, any extract, reproduction, retransmission, modification of any content in this document in any way is illegal and prohibited strictly.

When this document is disseminated on the Internet media, SPON allows downloading or printing for private use.

About this manual

This manual is only used as a guide for related products and may differ from the actual product, please refer to the actual product.

The information in this guide is subject to modification without prior notice.

This manual is only used as a guide, and the statements made do not constitute any form of warranty.

The user shall bear full responsibility for the application of the product, SPON does not assume any responsibility for any indirect or incidental losses caused by the incorrect use of this guide.

Important Safety Precaution

Please read this User Manual carefully before using this product and follow all the safety precautions mentioned herein.

During Installation

Avoid humidity:

Please do not expose the device to rainy environment or other humid environment, otherwise it may lead to fire or electric shock.

Use correct power supply:

Please use the specified power adapter for the device, using high voltage power supply may lead to fire or electric shock.

Protect the electric wire:

Do not scratch, cut or twist the power cord, keep the power cord away from any heating device, do not place heavy objects on top of the power cord, otherwise it may lead to fire or electric shock.

During Use

If anything goes wrong:

During use of this device, if any of these anomalies mentioned below happens, please cut off the electricity immediately, otherwise it may lead to fire or electric shock.

- smoke or strange smell coming out of the device.
- water or other foreign object gets into the device.
- damage on the product shell.
- damage of the power cord (cable core exposed or broken).
- malfunction of the device (no network connection or no sound).

Do not open the product shell:

There are high voltage parts inside of the product shell, opening the product shell without permission may lead to fire or electric shock.

Do not touch the device when it thunders:

To avoid electric shock, please do not touch the device or power plugs when it thunders.

Do not place liquid containers on top of the device:

If accidentally knock over the liquid container and let any liquid get into the device, it may

lead to fire or electric shock.

Cautions when the device is not in use

If the device is not in use for 10 days or longer, please cut off the electricity and unplug the power plug from the power socket, otherwise it may lead to fire or electric shock.

1. System Application Examples

1.1. About This Manual

This manual covers the following models:

Product Type	Model Number	Power Output
Network Column Loudspeaker	GEN-6191A03	30W
Network Column Loudspeaker	GEN-6191A06	60W
Network Column Loudspeaker	GEN-6191A12	120W

1.2. System Requirements

Recommended PC operational environments are as follows:

Display	Resolution: 1920x1080
OS(64bit)	Windows10~Windows 11
Browser	Microsoft Edge \ Google Chrome

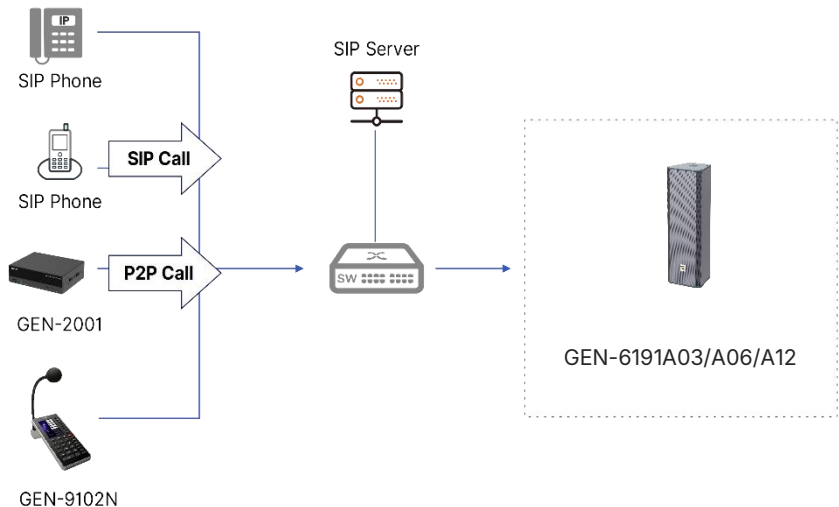
2. Introduction to System Scenario Functions

	Initiator	Recipient	Connected Attachments
SIP to Local Broadcast	GEN-9102 GEN-2001 SIP Phone	GEN-6191A03 GEN-6191A06 GEN-6191A12	N/A
VMS to Local Broadcast	VMS Client		
Bluetooth to Local Broadcast	Smartphone Bluetooth Player		

Note: The specific functions and interfaces of the equipment will be adjusted according to the product form of the equipment, please refer to the actual product specifications

parameters prevail.

2.1. SIP to Local Broadcast

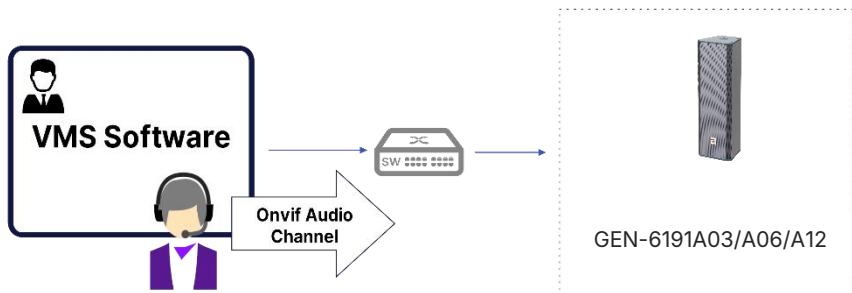


By registering the device with SIP Server or using P2P calling, you can make the receiving end play broadcasts. For the broadcast settings via SIP Phone or using P2P calling, refer to the following setup procedure

Setup 1	Login to devices WEB -Default username and password are both admin	Login
Setup 2	Ensure that the IP address of the device and the SIP server and SIP Phone can communicate with each other, and fill in the correct SIP account information. -SIP server address, port, SIP account, password and other information provided by the SIP server provider -P2P-type broadcasts, requiring the originator to support P2P calls (GEN-9102 or GEN-2001 recommended)	SIP
Setup 3	Setting the broadcast priority	Priority

	-Adjust pattern prioritization as needed	
Setup 4	Reboot -After setting the parameters, you need to reboot the device to take effect	<u>Maintain</u>
Setup 5	Adjusting the broadcast volume -Volume can be fine-tuned through the broadcast program and the total output volume can be adjusted through audio parameters -Volume adjustment according to the site environment and actual use requirements	<u>Audio</u>

2.2. VMS to Local Broadcast



By registering the device with or connecting it to NVR or VMS, VMS broadcasting can be performed using the microphones connected to these clients. For VMS Broadcast Settings, please refer to the following setup procedure.

Setup 1	Login to devices WEB -Default username and password are both admin	<u>Login</u>
Setup 2	Enable ONVIF protocol functionality and add devices via NVR or VMS -Default ONVIF protocol port: 9090; default user name: admin; default password: 123456 -For details on how to set up MICs and speakers for NVR and VMS, see the NVR and VMS User's Manuals	<u>ONVIF</u>

Setup 3	Setting the broadcast priority -Adjust pattern prioritization as needed	<u>Priority</u>
Setup 4	Reboot -After setting the parameters, you need to reboot the device to take effect	<u>Maintain</u>
Setup 5	Adjusting the broadcast volume -Volume can be fine-tuned through the broadcast program and the total output volume can be adjusted through audio parameters -Volume adjustment according to the site environment and actual use requirements	<u>Audio</u>

2.3. Bluetooth to Local Broadcast



Bluetooth Audio Channel

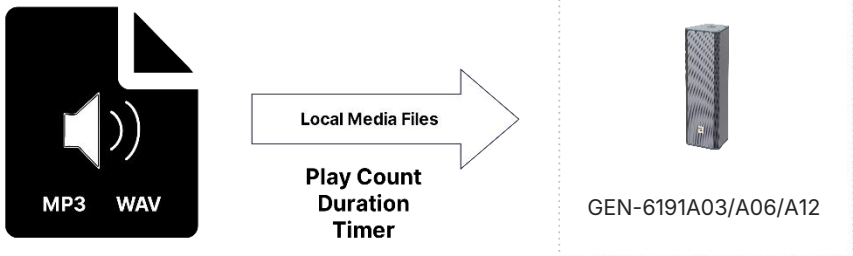


GEN-6191A03/A06/A12

Setup 1	Login to devices WEB -Default username and password are both admin	<u>Login</u>
Setup 2	Log in to the device's Web interface. Navigate to the "Bluetooth" settings page. Enable the Bluetooth function and enter a new Bluetooth name (optional). Save the settings and restart the device to apply the changes.	<u>Bluetooth</u>
Setup 3	Setting the broadcast priority -Adjust pattern prioritization as needed	<u>Priority</u>
Setup 4	Reboot	<u>Maintain</u>

	-After setting the parameters, you need to reboot the device to take effect	
Setup 5	Adjusting the broadcast volume -Volume can be fine-tuned through the broadcast program and the total output volume can be adjusted through audio parameters -Volume adjustment according to the site environment and actual use requirements	<u>Audio</u>

2.4. Media Files to Local Broadcast



Setup 1	Login to devices WEB -Default username and password are both admin	<u>Login</u>
Setup 2	Upload media files to the device -Built-in 80MB media storage space, support MP3, WAV file format (8K~48KHz)	<u>Media</u>
Setup 3	Create a broadcast pattern -Setting the name of the broadcasting program, media files, number of times to be played, playback interval, playback time, etc.	<u>Pattern</u>
Setup 4	Setting the broadcast priority -Adjust pattern prioritization as needed	<u>Priority</u>
Setup 5	Reboot -After setting the parameters, you need to reboot the device to take effect	<u>Maintain</u>

Setup 6	Adjusting the broadcast volume -Volume can be fine-tuned through the broadcast program and the total output volume can be adjusted through audio parameters -Volume adjustment according to the site environment and actual use requirements	<u>Audio</u>
----------------	--	--------------

3. Status Indicator

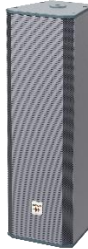
Device Operation	STATE	GEN-6191A03/A06/A12
Device startup in progress		
Device startup complete, standby		Continuous green light
Reception SIP/P2P/ONVIF	  (Flashing) 0.5 - 0.5sec	
Bluetooth audio input	  (Flashing) 0.5 - 0.5sec	
LINE audio input	  (Flashing) 0.5 - 0.5sec	
Pattern execution	  (Flashing) 0.5 - 0.5sec	

4. Product Introduction

The GEN-6191A03 is a wall-mounted speaker supporting PoE/DC power, SIP and VMS calls, handling 20 multicast streams and storing 20 audio files. It has priority management, timers and custom event actions via HTTP API, suitable for factories, urban construction and similar scenarios.

The GEN-6191A06 is a wall-mounted speaker supporting DC power, SIP and VMS calls, handling 20 multicast streams and storing 20 audio files. It has priority management, timers and custom event actions via HTTP API, suitable for factories, urban construction and similar scenarios.

The GEN-6191A12 is a wall-mounted speaker supporting AC power, SIP and VMS calls, handling 20 multicast streams and storing 20 audio files. It has priority management, timers and custom event actions via HTTP API, suitable for factories, urban construction and similar scenarios.



4.1. Product Features

- Receives SIP audio, ONVIF audio, Bluetooth, and multicast.
- Built-in 80MB file storage (supports up to 20 files in WAV/MP3 format).
- 1 control input, which can directly trigger local alarm files.
- Built-in microphone, supporting two-way communication.
- Supports HTTP API interface, which can receive HTTP API to trigger file playback.
- Adopts aluminum housing with IPX5 protection rating.

- Built-in timer for scheduled playback of local files.
- Supports POE/POE+ and DC power supply.

4.2. Product Specification

Product Specification	
Model	GEN-6191A03
Power Supply	DC24V, PoE (IEEE802.3af/at)
Power Cons	≤3W
Network Protocol	TCP/IP, UDP, HTTP, RTP, RTSP, ARP, ICMP, NTP, SIP, ONVIF
Network I/F	100BASE-TX, RJ45 Connector
Config Method	Web Interface or Device Config Tool
Power Output	30W (Use DC 24V) 15W (Use POE/POE+)
Frequency Response	100-15KHz
Sensitivity	85dB±3dB(1M/1W/1KHz)
Max SPL	96dB±3dB(1M/30W/1KHz)
SNR	≥85dB
Audio Trans	Multicast, ×20(Editable)
Audio Codec	Opus, PCMU (G.711u), PCMA (G.711a), G.722
Audio Input	×1, 500mv
Control Input	×1
Bluetooth Input	×1 ,2.4GHz
Audio Storage	Max 20 audio files ,80MB
Audio File Format	WAV, MP3
Mounting Method	Wall-Mounted

Install Env	Outdoor
Waterproof rate	IPX5
Working Temp	-10°C~+55°C
Operating Humidity	≤90% RH non-condensing
Housing Material	Aluminum alloy, iron mesh
Color	Silver Gray
Dimensions	296*140*130mm
Weight	1690g
Warranty	2 Years

Product Specification	
Model	GEN-6191A06
Power Supply	DC24V
Power Cons	≤3W
Network Protocol	TCP/IP, UDP, HTTP, RTP, RTSP, ARP, ICMP, NTP, SIP, ONVIF
Network I/F	100BASE-TX, RJ45 Connector
Config Method	Web Interface or Device Config Tool
Power Output	60W (Use DC 24V)
Frequency Response	100-15KHz
Sensitivity	87dB±3dB(1M/1W/1KHz)
Max SPL	102dB±3dB(1M/60W/1KHz)
SNR	≥85dB
Audio Trans	Multicast, ×20(Editable)

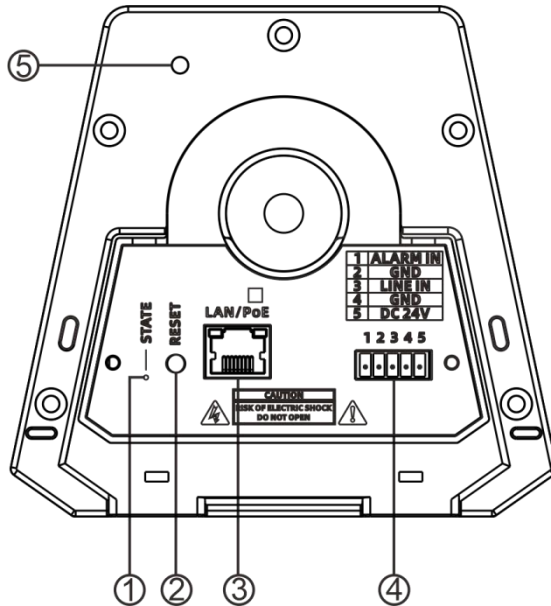
Audio Codec	Opus, PCMU (G.711u), PCMA (G.711a), G.722
Audio Input	×1, 500mv
Control Input	×1
Bluetooth Input	×1 ,2.4GHz
Audio Storage	Max 20 audio files ,80MB
Audio File Format	WAV, MP3
Mounting Method	Wall-Mounted
Install Env	Outdoor
Waterproof rate	IPX5
Working Temp	-10°C~+55°C
Operating Humidity	≤90% RH non-condensing
Housing Material	Aluminum alloy, iron mesh
Color	Silver Gray
Dimensions	436*140*130mm
Weight	2560g
Warranty	2 Years

Product Specification	
Model	GEN-6191A12
Power Supply	AC110V~AC240V 50/60Hz
Power Cons	≤3W
Network Protocol	TCP/IP, UDP, HTTP, RTP, RTSP, ARP, ICMP, NTP, SIP, ONVIF
Network I/F	100BASE-TX, RJ45 Connector

Config Method	Web Interface or Device Config Tool
Power Output	120W (Use AC110V~AC240V)
Frequency Response	80-18KHz
Sensitivity	90dB±3dB(1M/1W/1KHz)
Max SPL	107dB±3dB(1M/120W/1KHz)
SNR	≥85dB
Audio Trans	Multicast, ×20(Editable)
Audio Codec	Opus, PCMU (G.711u), PCMA (G.711a), G.722
Audio Input	×1, 500mv
Control Input	×1
Bluetooth Input	×1 ,2.4GHz
Audio Storage	Max 20 audio files ,80MB
Audio File Format	WAV, MP3
Mounting Method	Wall-Mounted
Install Env	Outdoor
Waterproof rate	IPX5
Working Temp	-10°C~+55°C
Operating Humidity	≤90% RH non-condensing
Housing Material	Aluminum alloy, iron mesh
Color	Silver Gray
Dimensions	916*140*130mm
Weight	6850g
Warranty	2 Years

4.3. Product Interfaces

Model: GEN-6191A03/06



① **STATE:** State Indicator Light: Constant on when power on, flashing when receive task.

② **RESET:** Press and hold the reset button for 10 seconds, then release. The device will automatically restart. After successful restart, the parameters will be restored to factory Settings.

③ **RJ45 Connector:**

NOTE:

Only the GEN-6191A03 model is supported POE power supply

④ **Integrated interface:**

1: ALARM IN: alarm input interface. Used for receiving external dry contact signal triggers.

Configurable Interlinked Tasks, including: Pattern, SIP/P2P Calls, Broadcast Disable.

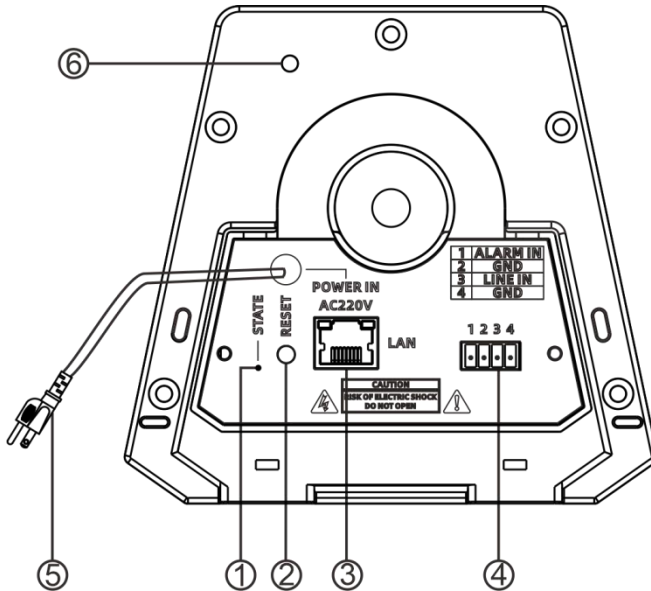
2: GND: the common ground of line input and alarm input.

3: LINE IN: line input interface.

4: GND: the ground end of power.

5: POWER: Power interface, support DC 24V/1.5A, DC 24V/2.7A power input.

⑤ **Microphone:** Pick up local audio.

Model: GEN-6191A12

①**STATE:** State Indicator Light: Constant on when power on, flashing when receive task.

②**RESET:** Press and hold the reset button for 10 seconds, then release. The device will automatically restart. After successful restart, the parameters will be restored to factory Settings.

③**RJ45 Connector:**

④**Integrated interface:**

1: ALARM IN: alarm input interface. Used for receiving external dry contact signal triggers.

Configurable Interlinked Tasks, including: Pattern, SIP/P2P Calls, Broadcast Disable.

2: GND: the common ground of line input and alarm input.

3: LINE IN: line input interface.

4: GND: the ground end of power.

⑤**POWER Cord:** Power interface, Connect to AC220V power supply.

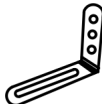
⑥**Microphone:** Pick up local audio.

4.4. Product Packing List

Model: GEN-6191A03/06

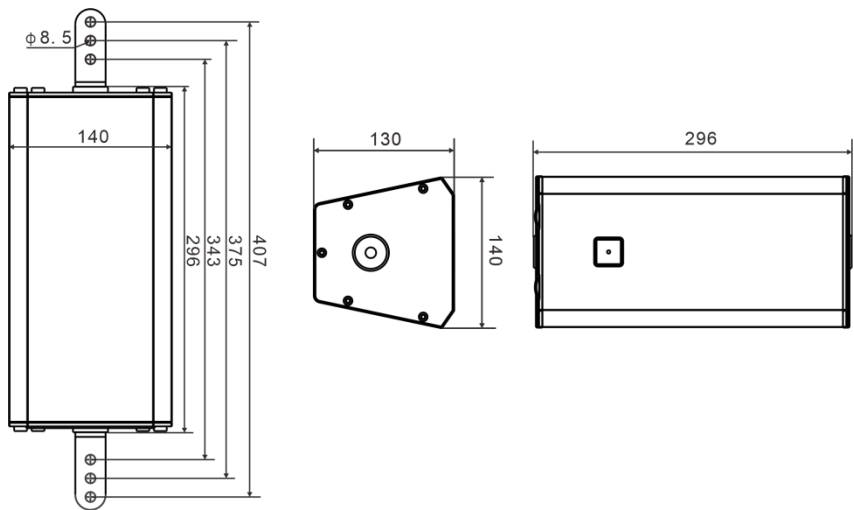
				
Bracket 1pcs	Outer hexagon flange face bolt 3pcs(M8*14 304)	Bracket 2pcs	Connection terminal 1pcs (3.5-5P)	
				
Self-locking nut 1pcs(M8 304)	Power adapter 1pcs (DC24V/1.5A) (optional)	Power adapter 1pcs (DC24V/2.7A) (optional)	Quick installation Manual 1pcs	Certification 1pcs

Model: GEN-6191A12

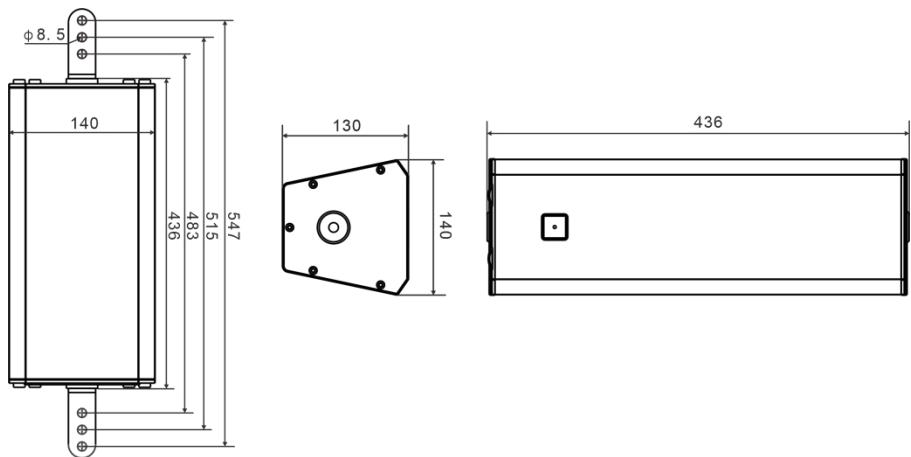
				
Bracket 1pcs	Outer hexagon flange face bolt 3pcs(M8*14 304)	Bracket 2pcs	Connection terminal 1pcs (3.5-4P)	
				
Self-locking nut 1pcs(M8 304)		Quick installation Manual 1pcs	Certification 1pcs	

4.5. Product Dimensions (Unit: mm)

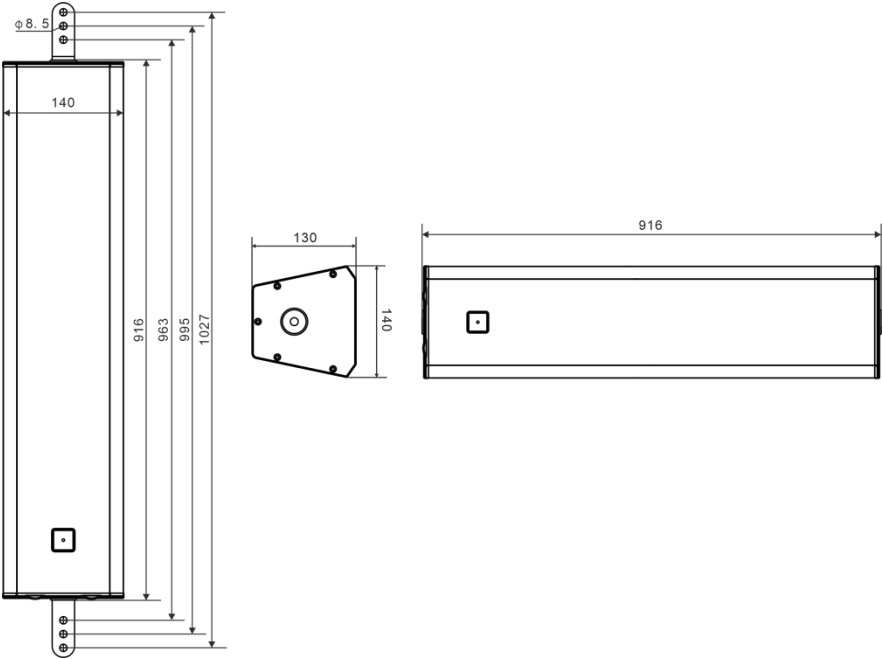
Model: GEN-6191A03

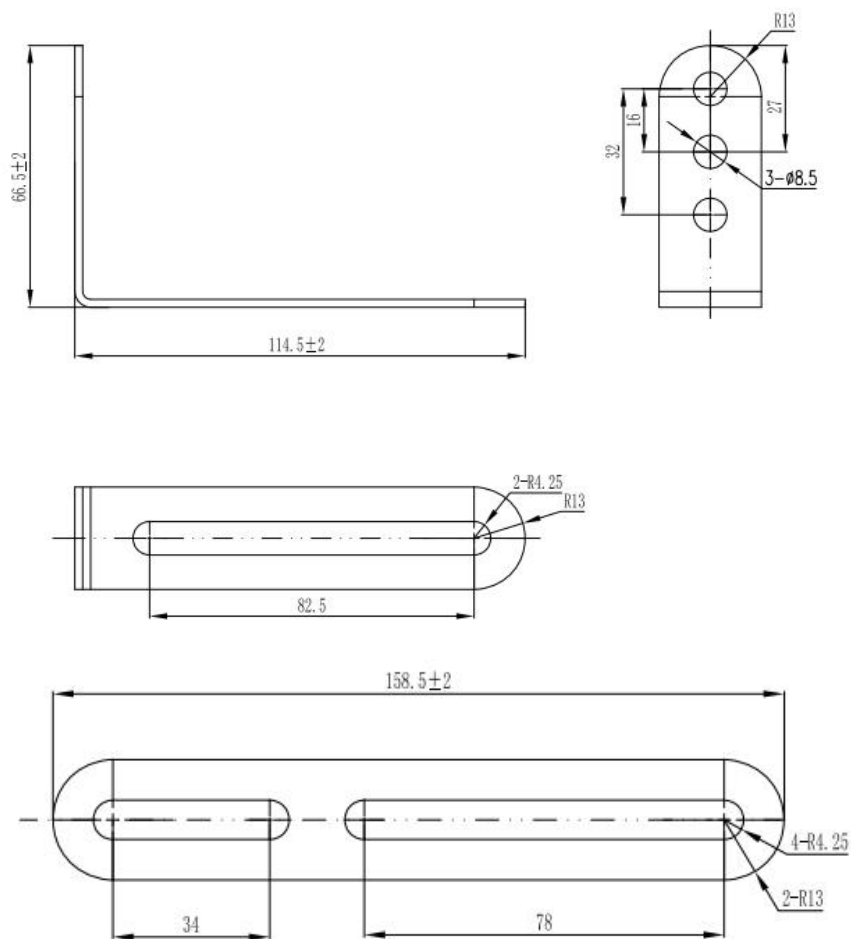


Model: GEN-6191A06

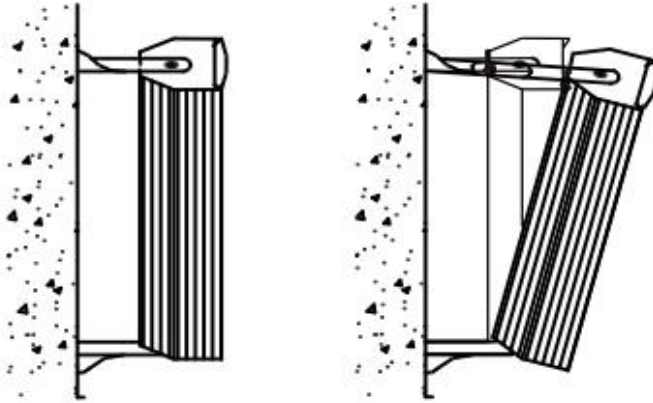


Model: GEN-6191A12



Bracket:

4.6. Product Installation



Installation instructions: Install three 8mm diameter screws in a suitable position on the elevation where the speaker is to be installed, install the bracket as shown in the picture above, and fix the speaker. If necessary, the upper bracket can be extended with tongue piece to adjust the depression Angle of the speaker.

Note: The speaker is installed vertically (transverse installation is not allowed). The outlet end of the power cord and network cable should face down, and do not block the drainage hole (the location of the drainage hole marked by the silk screen  at the bottom of the machine). When installing, please ensure the strength of the mounting surface to avoid falling risk.

5. Product Configuration

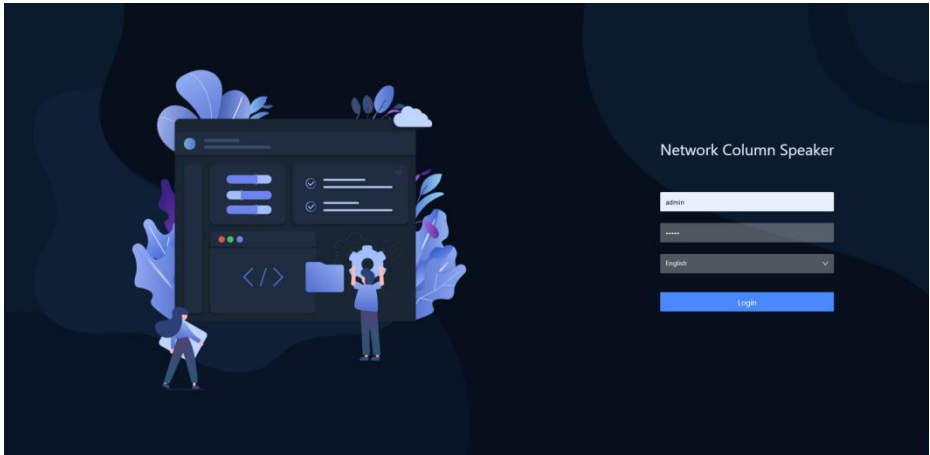
5.1. Web Page Parameter Configuration

5.1.1. Login To Web Page

(1) Please enter the IP address of the Network Column Loudspeaker in the address bar of the browser (the default IP address is 192.168.1.101), and then press enter.

(2) Enter the username, and password on the login page.

(3) Press login to enter the Devices web page.



Notes:

-Before accessing the device, make sure that the PC network and the device network can communicate with each other.

-Default Network Parameters:

IP address: 192.168.1.101; Subnet mask: 255.255.255.0; Gateway: 192.168.1.1

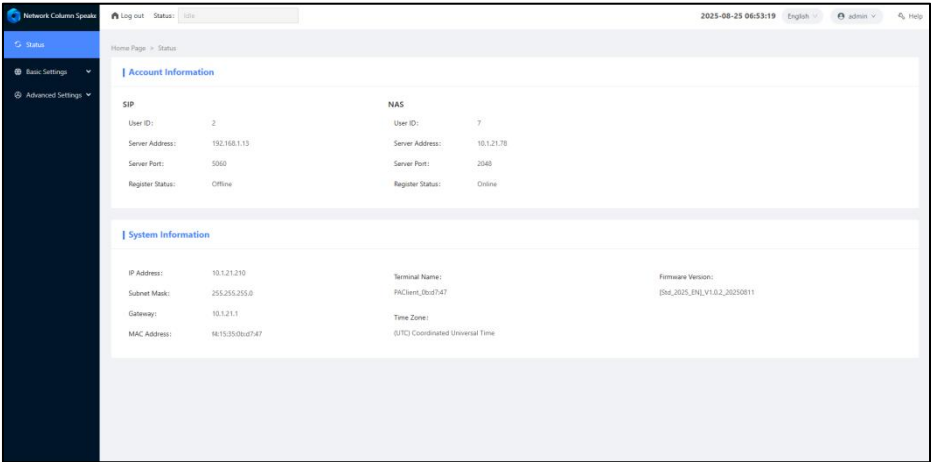
-Default username and password are both admin

-If the relevant parameter modification in the web page does not take effect after saving, please clear the cache and set them again.

-Avoid multiple PCs or multiple browsers accessing WEB at the same time, the new login will force the old access to quit. And the default logout timeout is 60s when the access has no operation.

5.1.2. Running Status

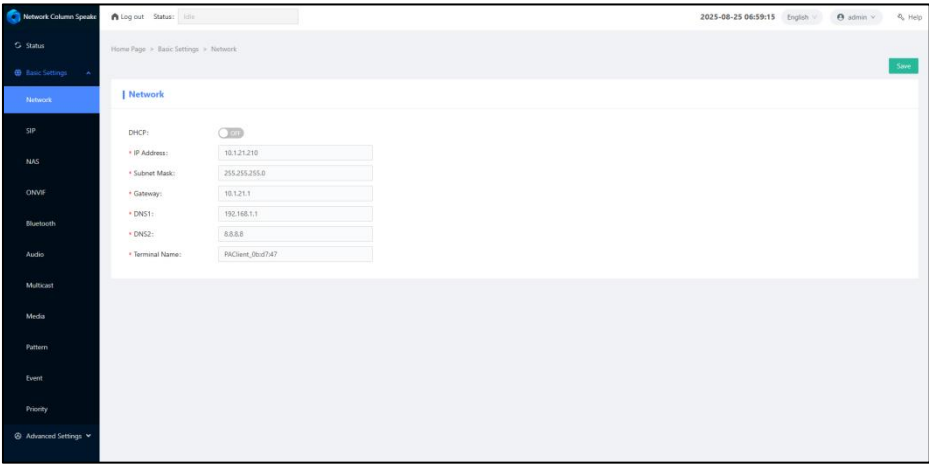
When the login to the WEB page is successful it will display the information of: Terminal ID, device IP address, default gateway, device MAC address and other information.



5.1.3. Basic Settings

5.1.3.1. Network

Please set the terminal network parameters according to the live environment. click on [save] button after setting, the parameters will take effect after reboot.



Network	
DHCP	Obtain IP, DNS, and other parameters from the DHCP server.
IP Address	Set the IP address of the device. Only private addresses can be entered. Initial setting: 192.168.1.101.
Subnet Mask	Set the Subnet Mask of the device. Initial setting: 255.255.255.0.
Gateway	Set the Gateway of the device. Initial setting: 192.168.1.1.
DNS1/2	Set the primary DNS server address and the secondary DNS server address. Modify these according to your actual situation when using the device.
Terminal Name	The Host name carried in the request information after enabling DHCP. Valid only in a DHCP usage environment.

5.1.3.2. SIP

Set configuration parameters related to SIP.

The screenshot displays the 'SIP Account Settings' page in the Network Column Loudspeaker configuration tool. The left sidebar contains a menu with options: Status, Basic Settings, Network, SIP (selected), NIS, OMRP, Bluetooth, Audio, Multicast, Media, Pattern, Event, Priority, and Advanced Settings. The main content area is titled 'SIP Account Settings' and includes a 'Save' button in the top right corner. The settings are organized into two sections: 'SIP Account Settings' and 'Other Settings'. In the 'SIP Account Settings' section, there is a toggle for 'Activate' (currently on), followed by input fields for 'User ID' (2), 'Authentication ID' (2), 'Display Name', 'Password' (masked with ****), 'Server Address' (192.168.1.13), 'Server Port' (5060), 'Local Port' (5060), 'Registration Expiry (sec)' (70), and 'Transmission Mode' (UDP selected, TCP unselected). The 'Other Settings' section includes 'Intercom Mode' (Full Duplex unselected, Half Duplex selected), 'Ring Time Limit (sec)' (0), and a list of supported codecs (G711, G722, L16, MP3) with checkboxes for 'v10 Item' (Disable) and 'v5 Item' (Enable).

SIP	
Activate	Enable account activation to send a registration request to the specified SIP server address. Enabled by default.
User ID	Configure the ID for registering with the SIP server; the default ID is 2.
Authentication ID	Configure the authentication ID on the SIP server; by default, it is the same as the User ID. the default ID is 2.
Display name	The Display name of SIP account, it will be displayed on the terminal interface after setting.
Password	Password for terminal to login to SIP server, default is 1234.
Server Address	IP address of the SIP server that the terminal logs into. Please enter the correct IP address of the SIP server. When the SIP server address is in domain name format, you need to modify the DNS server that can resolve this domain name.
Server Port	Configure the SIP Server port according to the actual situation, the default is 5060.
Local Port	Configure the port used for the device to register with the SIP server; default is 5060.
Registration Expiry(sec)	Configure the registration interval for the SIP server ID; the unit is seconds. The default value is 70.
Transmission Mode	Configure the transport protocol for registering with the SIP server; adjust according to your actual situation. The default is UDP.

Intercom Mode	Full-duplex intercom: Both parties can send and receive data simultaneously. Half-duplex intercom: Both parties can exchange data, but not at the same time; transmission and reception must alternate. The default call release time for this device is 800ms. The default is Half-duplex.
Ring Time Limit (sec)	The auto-answer duration when receiving a SIP call; the default is 0, which means the call enters the conversation immediately without ringing.
Audio Coding	Supports PCMU, PCMA, G722, L16, and MP3 encoding methods, with priority ordered from top to bottom. To adjust the audio coding priority, move the desired coding method to the left selection box and then select it to move to the right to complete the configuration. Note: When establishing communication using L16 or MP3 encoding, the receiving end only receives (suitable for SIP broadcasting). For two-way SIP intercom, please select PCMU, PCMA, or G722 audio codecs.

5.1.3.3. NAS

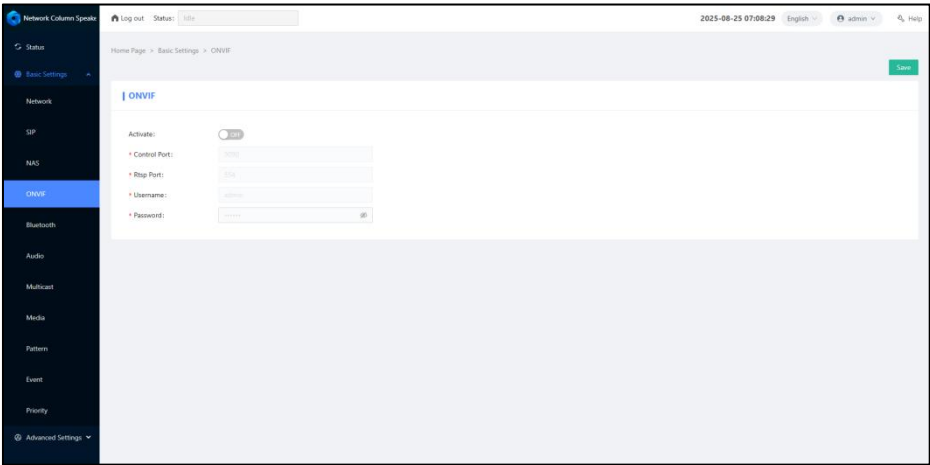
The NAS protocol is applicable to the SPON private protocol and can be adapted for use on both the XC-9000 server software and the built-in server software.

NAS	
Activate	Enable account activation to send a registration request to the specified NAS server address. Enabled by default.
User ID	Configure the ID for registering with the NAS server; Default ID is 1.
Server Address	IP address of the NAS server that the terminal logs into. Please enter the correct IP address of the NAS server.

	When the NAS server address is in domain name format, you need to modify the DNS server that can resolve this domain name.
Server Port	Configure the NAS Server port according to the actual situation, the default is 2048.
Local Port	Set the port used by the local device to log in to the NAS server. The default value is 2046.
Intercom Mode	Full-duplex intercom: Both parties can send and receive data simultaneously. Half-duplex intercom: Both parties can exchange data, but not at the same time; transmission and reception must alternate. The default call release time for this device is 800ms. The default is Half-duplex.
Ring Time Limit (sec)	The auto-answer duration when receiving a NAS call; the default is 0, which means the call enters the conversation immediately without ringing.

5.1.3.4. ONVIF

Set ONVIF related parameters for credentials used to connect to VMS, NVR.

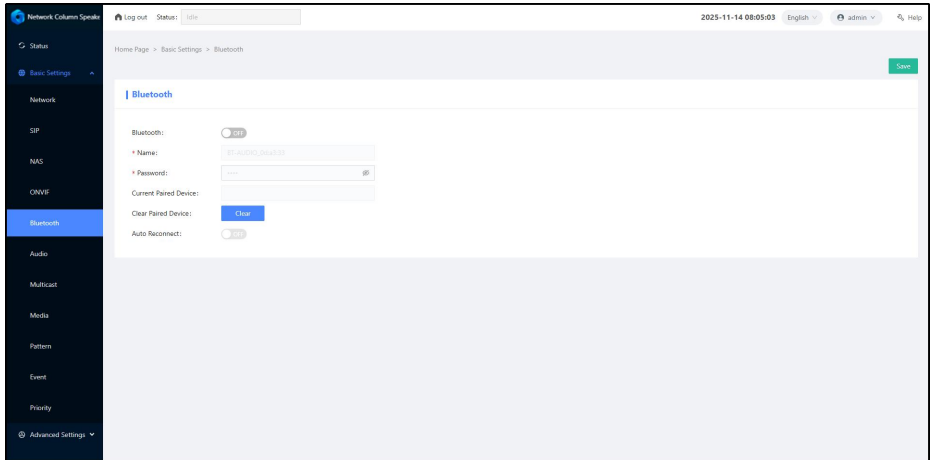


ONVIF	
Activate	When enabled, the terminal will support the ONVIF protocol and can perform bidirectional transmission of audio streams with the VMS platform.
Control Port	The port used for ONVIF protocol communication; the default is 9090.
RTSP Port	The port used for media data negotiation; the default is 554.
Username	The username used for ONVIF authentication. Default: admin.

Password	The password used for ONVIF authentication. Default: 123456.
----------	--

5.1.3.5. Bluetooth

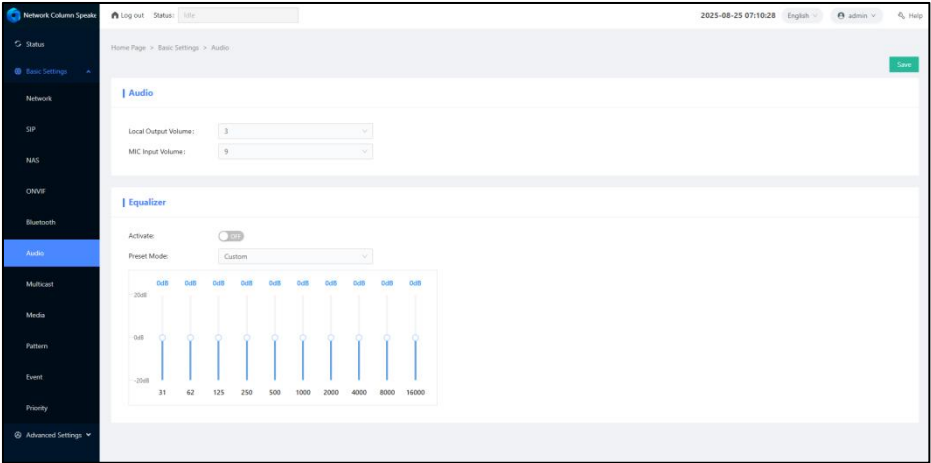
Configure the parameters related to Bluetooth connections.



Bluetooth	
Bluetooth	Enable Bluetooth connection; default is disabled.
Name	Editable Bluetooth name for discoverable devices; by default, it includes the last six digits of the device's MAC address.
Password	The pairing code used for connecting Bluetooth devices; the default is 1234.
Current Paired Device	Display the name of the currently paired device.
Clear Paired Device	Click the button to clear paired remote devices.
Auto Reconnect	Enabled: When a paired device is detected, the audio Bluetooth will be automatically reconnected; Disabled: When the audio Bluetooth is disconnected for more than 2 minutes, paired devices will be automatically cleared.

5.1.3.6. Audio

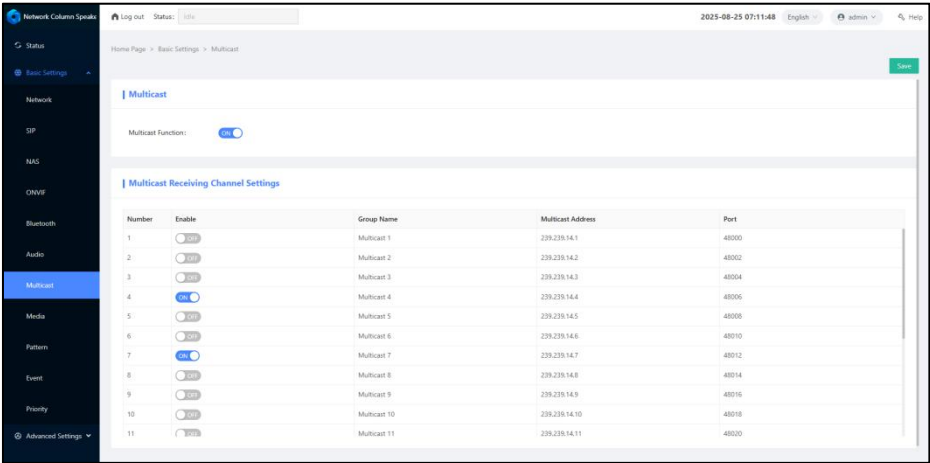
Configure the parameters related to input and output volume and channels.



Audio	
Local Output Volume	Used to adjust the local audio output volume, including the local speaker and line-out signal levels. Default is 9.
MIC Input Volume	Used to adjust the local MIC input volume, including the built-in microphone and intercom panel (GEN-4101) parameters. Default is 9.
Equalizer	Equalizer: Optimizes sound quality by boosting or attenuating signals in specific frequency bands. When enabled, supports six preset modes — Bass, Pop, Classic, Rock, Speech, and Custom — for switching. Changes are saved and take effect in real time. The Custom mode allows adjustment of ten frequency bands, each ranging from -20 dB to +20 dB. Other modes only display preset values and do not support custom adjustment. Default is disabled.

5.1.3.7. Multicast

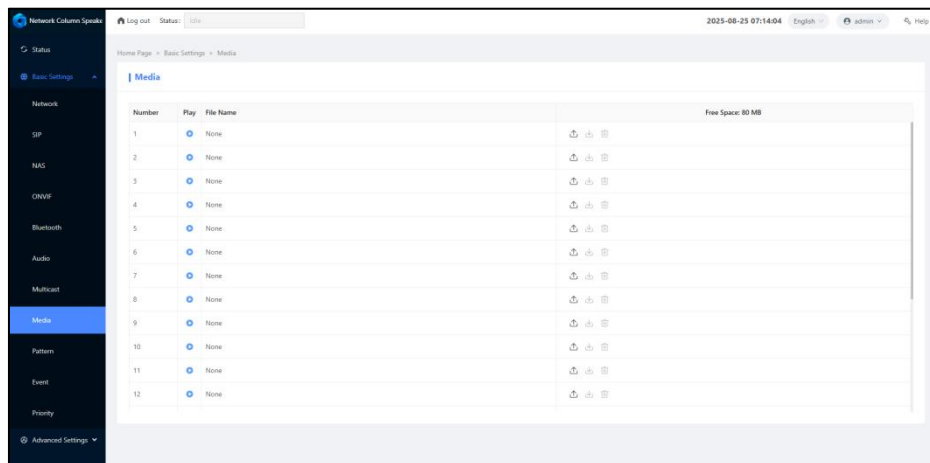
Set the terminal Receive multicast parameters, click on [save] button after setting, the parameters will be applied immediately.



Multicast	
Multicast Function	Enable or disable multicast reception function.
Enable	Enable or disable single channel multicast reception.
Group Name	Set the name of the multicast send address for quick identification of the target type or area. Users can modify this according to their needs. Default multicast 1~20.
Multicast Address	Multicast Send Address, which follows the Class D IP Address Range. Default parameters: 239.239.14.1 ~ 239.239.14.20.
Port	Multicast Send Address Port, default parameters: 48000 ~ 48038.

5.1.3.8. Media

Upload media files to be played when the corresponding task is triggered. Maximum supported storage space is 80MB.



Media	
Play	Play uploaded media files via the WEB page (recommended to use Chrome browser for operation)
File Name	The name of the currently uploaded media file, cannot be modified on the web page.
	-Upload: Upload audio media files (supports mp3, wav) -Download: Download audio media files from the terminal device via the current WEB. -Delete: Delete audio media files from the terminal device via the current WEB.
Free Space	Display the remaining media storage space on the device. This will be recalculated and shown each time a file is uploaded. Maximum supported storage space is 80MB.

Notes:

-Supported file formats: WAV (8/16/22/44.1/48 kHz sampling rate, 8/16 bits, mono/stereo) , MP3(32/44.1/48 kHz sampling rate, 64-320 KBPS, CBR/VBR, mono/stereo).

-Maximum file size: no more than 50mb for a single file and no more than 80MB for total storage.

5.1.3.9. Pattern

Set the configuration for the broadcast file playback mode. When external signals, buttons, timers, or other operations trigger an event, the corresponding broadcast operation will be executed.

Number	Pattern Name	Media File	Repeat	Interval	Input volume
1	Pattern 1	None	Play Count: 1, timer: 10s	3s	sec(0-3600) 0dB
2	Pattern 2	None	Play Count: 1, timer: 10s	3s	sec(0-3600) 0dB
3	Pattern 3	None	Play Count: 1, timer: 10s	3s	sec(0-3600) 0dB
4	Pattern 4	None	Play Count: 1, timer: 10s	3s	sec(0-3600) 0dB
5	Pattern 5	None	Play Count: 1, timer: 10s	3s	sec(0-3600) 0dB
6	Pattern 6	None	Play Count: 1, timer: 10s	3s	sec(0-3600) 0dB
7	Pattern 7	None	Play Count: 1, timer: 10s	3s	sec(0-3600) 0dB
8	Pattern 8	None	Play Count: 1, timer: 10s	3s	sec(0-3600) 0dB
9	Pattern 9	None	Play Count: 1, timer: 10s	3s	sec(0-3600) 0dB
10	Pattern 10	None	Play Count: 1, timer: 10s	3s	sec(0-3600) 0dB
11	Pattern 11	None	Play Count: 1, timer: 10s	3s	sec(0-3600) 0dB
12	Pattern 12	None	Play Count: 1, timer: 10s	3s	sec(0-3600) 0dB

Pattern	
Pattern Name	Used for modifying the name of the broadcast mode, facilitating the management of different broadcasting methods.
Media File	Matches the media file that needs to be played. Detailed configuration needs to be done in the Media section.
Repeat	Play Count: The number of times to play is the loop count of the Media File; Duration: The duration is the total playback length of the media file. Timer: Set up a scheduled task to run periodically within the time range of specific days and hours each week
Interval	The time interval before playing the next media file after the current media file of files has finished playing. The maximum Interval for file playback is 3600 seconds.
Input Volume	Adjust the output gain for the playback of media files

Notes:

This unit supports Remote Control by external devices.

①Command format

http://admin(username):admin(password)@<IP_address>/api/v1/<Command_type>/<Command>?<Parameter1=value1>&<Parameter2=value2>

②Command list

Command Type	Command	Parameter1	value1	Parameter2	value2
control	pattern/play	pattern_number	1-20	destination	speaker
control	pattern/stop	pattern_number	1-20		
control	reboot				

③Command Example

Basic info. Username=admin, password=admin, IP address=192.168.1.101

- Example1: Play pattern5;

http://admin:admin@192.168.1.101/api/v1/control/pattern/play?pattern_number=5&destination=speaker

- Example2: Stop pattern9;

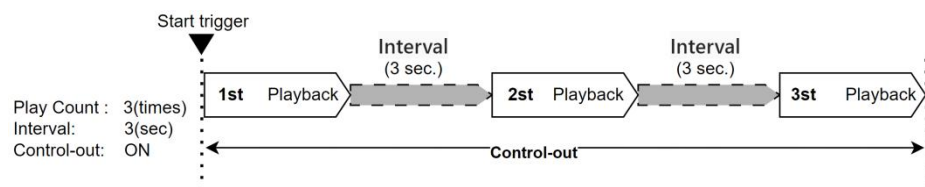
http://admin:admin@192.168.1.101/api/v1/control/pattern/stop?pattern_number=9

- Example4: reboot the unit;

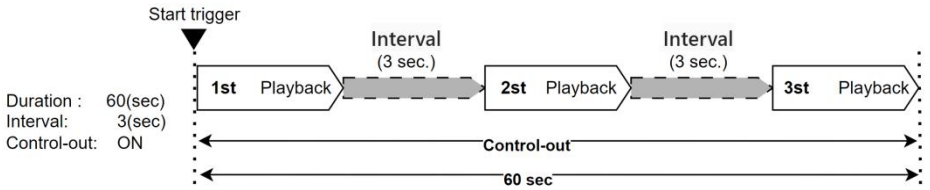
http://admin:admin@192.168.1.101/api/v1/control/reboot

[If Play Count is selected]

Designate the number of times the sound source playback will be repeated. The following operation is performed when Edge is selected as the Signal Mode and the start trigger is a control input, or if the receiving device is externally controlled by remote API.

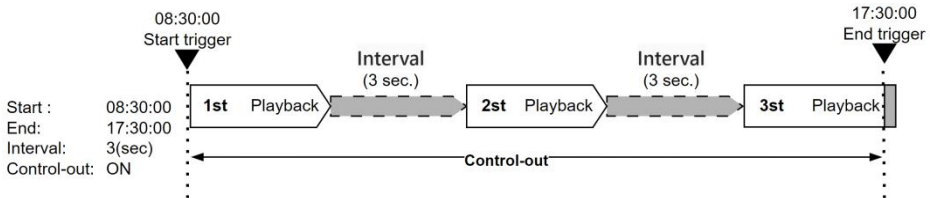
**[If broadcast duration is selected]**

Designate the duration of repeated play. The following operation is performed when Edge is selected as the Signal Mode and the start trigger is a control input, or if the receiving device is externally controlled by remote API.



[If Timer is selected]

Designate the repetition start time and end time for the sound source.



Note:

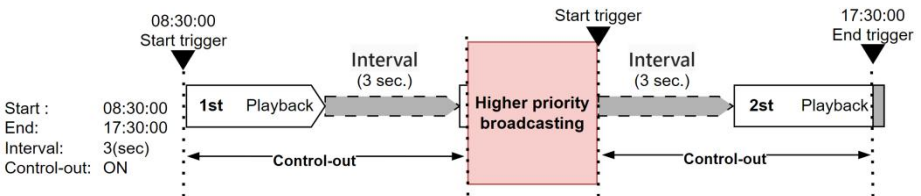
Pattern numbers set to Timer will not be enabled, even if set as event actions on the Event Settings screen. Nor can they be externally controlled by Remote API. Instead, to control the pattern by event action or Remote API, set it to Play Count or Duration. Patterns set as Timer are only enabled as determined by the timer settings.

- The start time and end time cannot be set to the same value.

Tips:

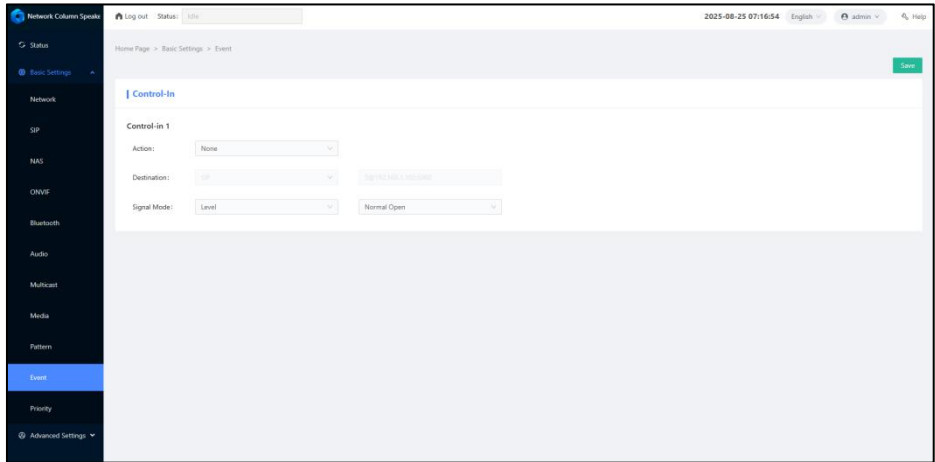
The broadcast execution time cannot be executed across days, for example, if you need to set up a broadcast task that starts at 17:00 PM and ends at 6:00 AM the next day, you need to configure two time points: first, configure 17:00:00~23:59:59; then, configure 0:0:0~6:0:0

- To play the sound source only once, without performing repeat play, set an end time based on the length of the sound source play.
- If another higher priority broadcast is enabled between the start time and end time, the broadcast will behave as follows:



5.1.3.10. Event

Set the tasks to be triggered when the terminal alarm input interface is activated. These tasks can include initiating a SIP call, triggering a pattern, broadcast Disable, and other operations to meet different usage scenarios.



Event	
Control in	Configure to trigger the operation of the corresponding target task when a change in a particular short-circuit input signal occurs.
Action	The actions support triggering the following types: Pattern, SIP Call and Broadcast Disabled. Select Pattern to be triggered for playback tasks on the local machine only. Call is a call task type that requires specifying a SIP terminal destination, formatted as: 3@192.168.1.102:5060. Broadcast Disabled is a mute operation that only becomes effective when the signal trigger mode is set to level type. Upon being triggered, it will shut down all audio output channels on the device without affecting other task statuses.
Destination	The trigger task destinations support and SIP Call destinations.
Signal Mode	Trigger signals include level signals and edge signals. Level signals are of the type that requires continuous triggering, such as using a self-latching switch to trigger. Edge signals are for instantaneous trigger detection, like using a push-button switch to trigger. Normally open/Normally closed detection is for judging changes in alarm states. When setting a Normally open alarm, it is necessary to ensure that the corresponding short-circuit input's initial state of the device is closed, and an alarm will be triggered

when it opens. Conversely, the same principle applies.

5.1.3.11. Priority

Set the task priority, ranked from high to low. Users can drag the icon on the right side of the table to freely sort the tasks.



Priority

Priority	Priority ranking starts at 1 as the highest, decreasing sequentially.
----------	---

Recommendations for use:

- High priority tasks: such as emergency broadcasts or alarm signals, should always be executed first.
- Low priority tasks: such as background music or timed broadcasts, can be executed when there are no higher priority tasks.
- High-priority tasks will override low-priority tasks. Once the high-priority task is completed, the low-priority task will resume execution.

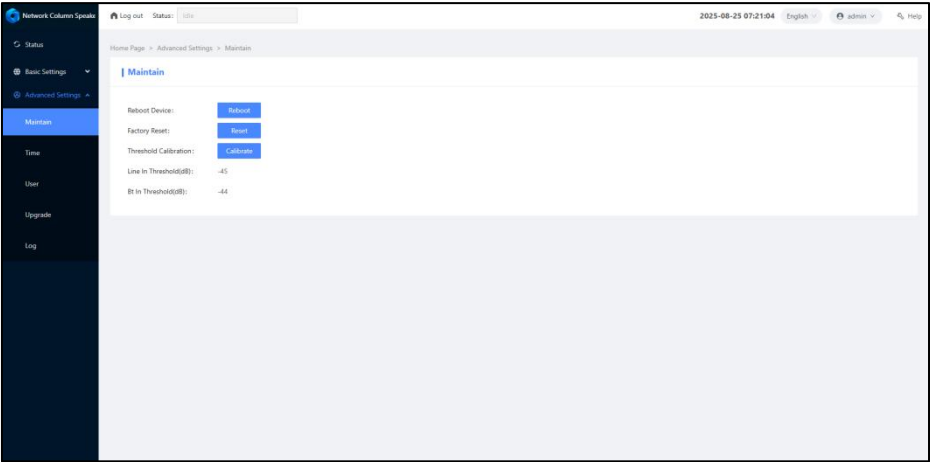
5.1.4. Advanced Settings

5.1.4.1. Maintain

Reboot terminal: Restarts the device. Use this button when applying setting changes or performing other operations that require restart.

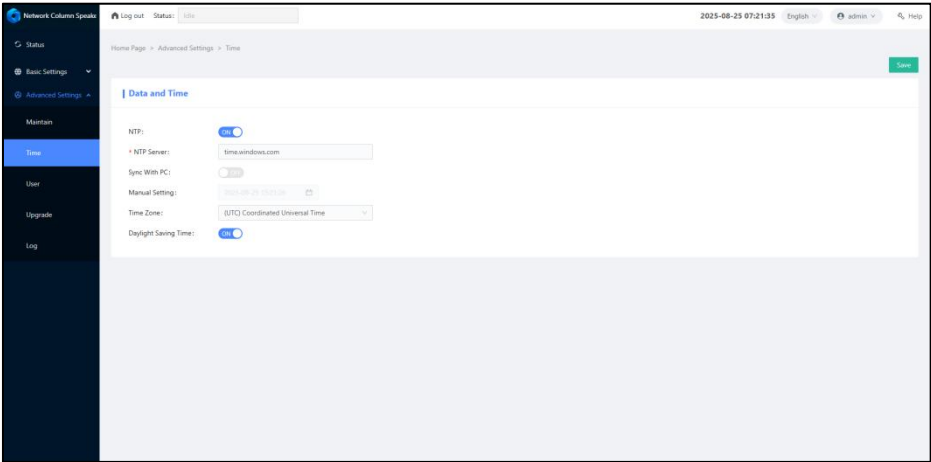
Return to factory: Resets all of the device's settings to their initial status as shipped from the factory. Internally saved sound source files will also be deleted.

Threshold calibration: Click this button to calibrate the line and Bluetooth input threshold. Please ensure that there is no audio input during calibration. Line input and Bluetooth input activate based on audio signal amplitude. If tasks don't start or stop correctly, recalibrate.



5.1.4.2. Time

Set the device time. Click on [save] button after setting, the parameters will be applied immediately.



Time	
NTP	When NTP is enabled, the system will request time from the specified NTP server; if you need to set the time manually, you should disable this option.
NTP Server	The NTP server address can be an IP address or a domain name. If you set a domain name, you need to configure the correct DNS address accordingly.
Sync With PC	Synchronize the time with the PC currently accessing the web based on actual needs.
Manual Setting	Users can set the time zone and time according to their needs.
Time Zone	Users can set the time zone for their current region according to their needs.
Daylight Saving Time	Users can set the daylight saving time (DST) configuration for their current region according to their needs. When enabled, the system will calculate the DST time based on the DST rules.

5.1.4.3. User

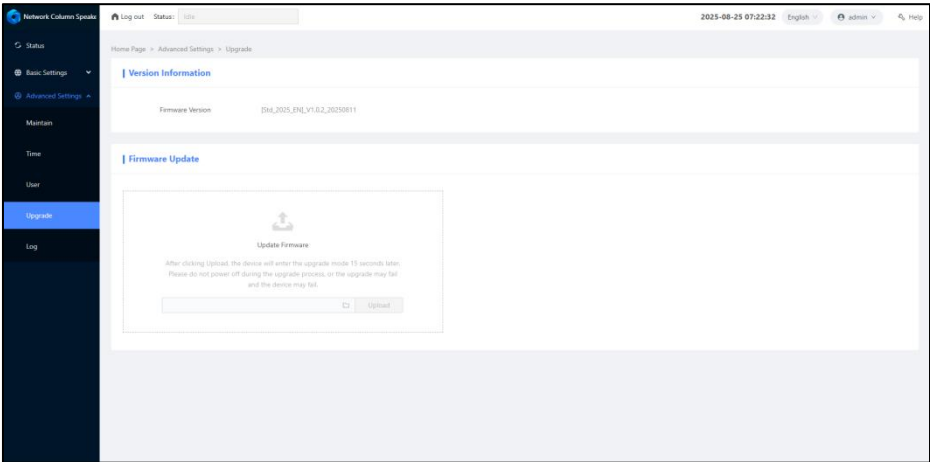
You can change the password for logging into the web page. After saving the password change, restart the web page to take effect. (Advised to change passwords periodically to ensure security).

The screenshot displays the 'User' settings page within the 'Network Column Loudspeaker' web interface. The interface features a dark blue sidebar on the left with navigation options: Status, Basic Settings, Advanced Settings, Maintain, Time, User (highlighted), Upgrade, and Log. The main content area has a light gray header with a 'Log out' button and a 'Status' dropdown. Below the header, a breadcrumb trail reads 'Home Page > Advanced Settings > User'. The 'User' section contains four input fields: 'Current User Name' (with a dropdown arrow), 'Current Password', 'New Password', and 'Confirm Password'. Each password field has a small eye icon for toggling visibility. A green 'Save' button is located in the top right corner of the main content area.

5.1.4.4. Upgrade

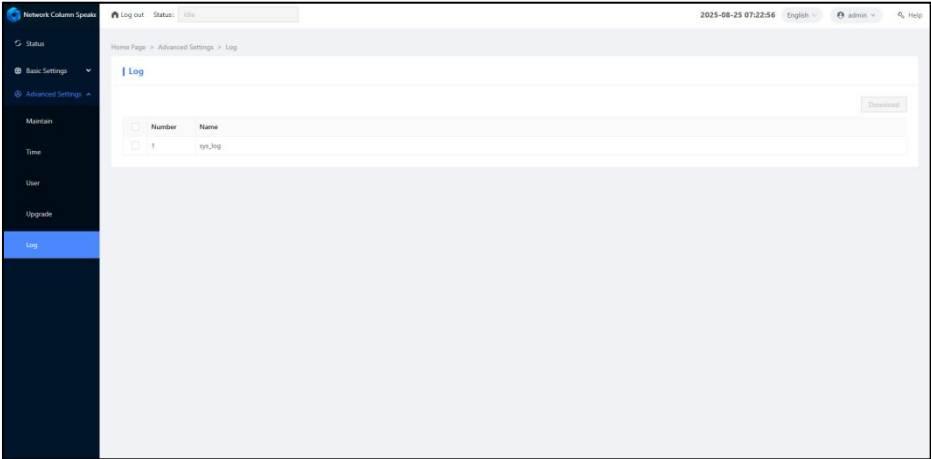
On the upgrade page, click on " " button, select the firmware upgrade file provided by the manufacturer, and click on "Upload" button to start the upgrade.

Note: Please do not power off during the upgrade process, otherwise it may lead to upgrade failure and device malfunction. The upgrade process is about 120s, and the device and web page will restart automatically after the upgrade is completed. (Do not upgrade the firmware unless you have special needs)



5.1.4.5. Log

Record the system logs and web logs of the current device for maintenance personnel to check and verify operation records.



6. Troubleshooting

6.1.1. Common Issues and Solutions

Issue	Possible Causes	Solutions
Unable to log in via the Web Interface	- The device and PC are not on the same network segment. - IP address conflict. - Network connection issues or interruption. - Firewall blocking Web access.	- Ensure the device and PC are on the same local network and check if the network connection is stable. - Use tools like ping to test if the device's IP address is reachable. - Verify the device's IP address settings to ensure there is no conflict. - Temporarily disable the firewall or add an exception rule to allow access to the device's Web interface.
Unable to connect to the SIP server	- Incorrect SIP server address or port configuration. - Network connectivity issues preventing communication with the SIP server. - The SIP server is not running or is unreachable. - Firewall blocking the SIP port (default 5060).	- Check the SIP server's IP address and port settings in the device's Web interface to ensure they are correct. - Use ping or telnet to test the connectivity to the SIP server. - Confirm that the SIP server is running and accessible. - Check firewall settings to ensure the SIP port is not blocked.
Device Cannot Connect via Bluetooth	- Bluetooth is not enabled. - Bluetooth device is not paired. - Bluetooth device is too far away or obstructed.	- Log in to the web page, go to the "Bluetooth" page, and ensure Bluetooth is enabled. - Ensure the Bluetooth device is paired; the default pairing code is 1234. - Ensure the Bluetooth device is within range of the GEN-3001 and there are no significant obstructions.
Low or High Audio Input Volume	- Input volume settings are incorrect. - Cable connection issues.	- Log in to the web page, go to the "Audio" page, and adjust the "MIC Input Volume" and "Local Output Volume" settings. - Check the volume settings of the external input device (e.g., microphone). - Check the audio input cable connections to ensure they are secure and undamaged.

Issue	Possible Causes	Solutions
Poor Audio Output Quality	- Audio codec settings are incorrect. - Unstable network environment. - Output device issues.	- Log in to the web page, go to the "Audio" page, and adjust the "Equalizer" settings to suit the current network environment. - Check the network environment to ensure a stable connection and avoid network fluctuations. - Check the audio output device (e.g., speaker) to ensure it is functioning correctly and properly connected.
Incorrect Multicast Address Configuration	- Multicast address settings are incorrect. - Multicast address conflict.	- Log in to the web page, go to the "Multicast" page, and check the multicast address settings to ensure they are within the Class D IP address range (239.0.0.0 - 239.255.255.255). - Ensure the multicast address does not conflict with other devices, and each multicast address should be unique.
Control Input Signal Fails to Trigger Task	- Control input signal settings are incorrect. - Signal mode settings are incorrect. - External device connection issues.	- Log in to the web page, go to the "Event" page, and check the control input signal settings to ensure the signal mode (level signal or edge signal) is set correctly. - Check the external device (e.g., switch) to ensure it is functioning correctly and properly connected. - Check the control input port for damage and replace or repair if necessary.
High-Priority Tasks Not Executing	- Task priority settings are incorrect. - High-priority tasks are being overridden by low-priority tasks.	- Log in to the web page, go to the "Priority" page, and check the task priority settings to ensure high-priority tasks are placed at the top. - Ensure no other tasks are occupying high-priority positions and adjust the task order if necessary.
System Time Not Synchronized	- Incorrect NTP server settings. - Inaccurate manual time	- Log in to the web page, go to the "Time" page, and check the NTP server settings to ensure the

Issue	Possible Causes	Solutions
	settings.	address is correct and accessible. - If manually setting the time, ensure the time is set accurately and synchronize with the PC time if necessary.
Failed to Upload Media Files	- Unsupported file format. - Insufficient storage space. - Network connection issues.	- Ensure the media files are in the supported formats (WAV or MP3). - Check the device's remaining storage space to ensure there is enough space for media files. - Check the network connection to ensure stability during file upload.
Settings Lost After Device Reboot	- Settings not saved. - Storage medium failure.	- Ensure settings are saved by clicking the "Save" button after making changes and wait for the device to confirm the save. - Check the device's storage medium for proper functioning and contact technical support if necessary.
Forgot password	-Press and hold the reset button for about 5 seconds to release the device	-After the device triggers the reset, all parameters are initialized and the device automatically restarts. After the reset, the IP address is 192.168.1.101. WEB User name and password: admin/admin. Turn off the lock screen, etc
Forgot IP address	-Use the IP scanning and configuration tool on the LAN	-After the terminal is detected, you can select and change the IP address based on the terminal model and MAC address. -You can also directly connect the device network port to the computer network port to forcibly configure an IP address for the terminal.

6.1.2. Summary

The above table lists additional faults and their troubleshooting solutions, which can help customers conduct a comprehensive analysis of product issues. If problems persist, customers are advised to contact SPON Communications' technical support for further assistance. We hope this information is helpful to you!



Innovate for Security



www.sponcomm.com

Tel: +86 731 8557 0190

Mobile: +86 138 7314 3517

Email: inquiry@sponcomm.com

Address: No.70, Nantang Road, High-tech Zone, Changsha, China.