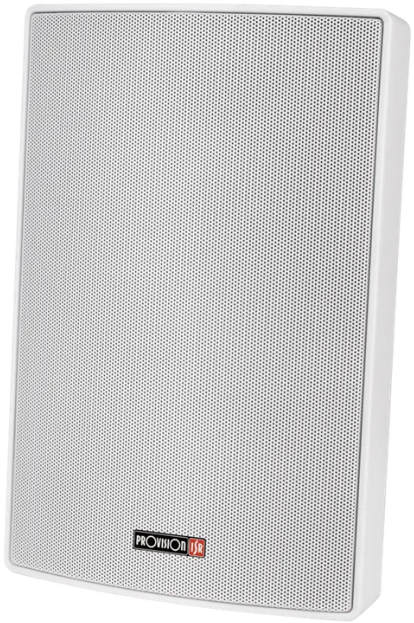
PROTECTING YOUR PRIVACY

PoE IP Luidspreker

Installatiehandleiding (E)



Modellen:

- PR-HS15W-IP
- PR-HS30W-IP
- PR-WS15W-IP

Index

1) Terms & Conditions

- We strongly advise users to read this manual and keep it for later use for proper and safe device usage.

- Please use the provided & authorized by Provision-ISR technician power supply and power source indicated on the marking label. The power voltage must be verified before use.

- Avoid improper operation, shock vibration, and heavy pressing that can cause product damage.

- Do not use corrosive detergents when cleaning. When necessary, please use a soft dry cloth to wipe the dirt off; use neutral detergents for problematic pollution & decay. Any cleanser for high-grade furniture is applicable.

- Keep away from heat sources such as radiators, heat registers, stoves, etc.

- Do not try to repair the device without technical aid or approval.
- For speaker installations:
- Avoid aiming the speaker directly towards extremely bright objects, such as the sun, which may damage the image sensor.
- Please abstain from reversing the speaker. This will result in an inverted image. Please follow the instructions for proper speaker installation.
- Do not operate the speaker in extreme temperatures or extreme humidity conditions.
- For Recorder & server installations:
- Do not block any ventilation openings and ensure proper airing around the device.
- Perform a safe shutdown before disconnecting from power. Otherwise, HDD damage and configuration loss might occur.
- This device is for indoor use only.
- Do not install this device near water, nor expose it to rainy or moist environments. If any solids or liquids get inside the device's case, turn the device off immediately and have it checked by a qualified technician.

- The instructions in this manual are suitable for all models running Ossia OS. Models which do not support any of the features will have explicit markings.

- For devices with internal power supply, please ensure that the AC 220/110V input selector is set correctly.

- There may be incorrect info or printing errors in this manual. PROVISION-ISR reserves the right to change this manual and publish the revision online on our website (www.provision-isr.com); there may be inconsistencies with the latest version, which apply to any software upgrades and product improvements,

interpretation and modification added. Updates and corrections are subject to change without notice.

- All pictures and examples used in the manual are for reference purposes only.

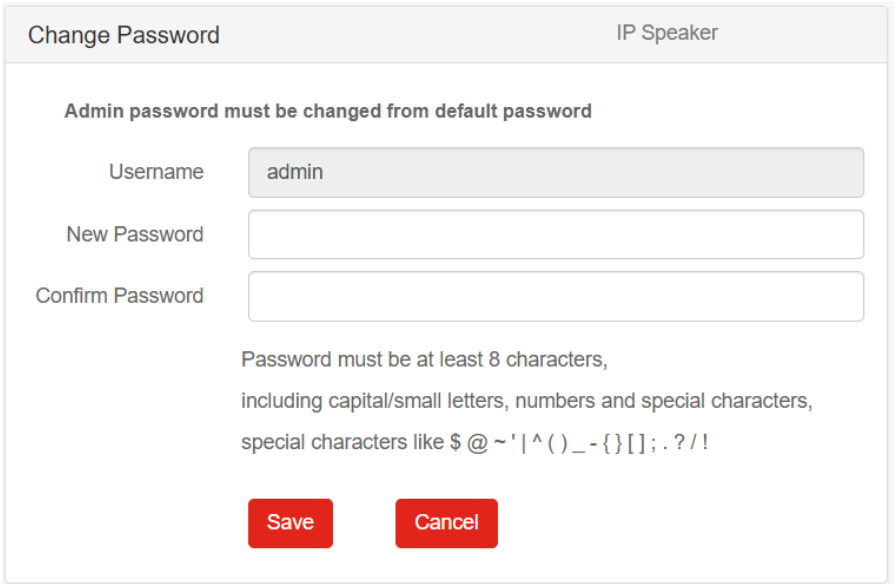
- When this device is in use, the relevant contents of Microsoft, Apple and Google are involved. The ownership of trademarks, logos, and other intellectual properties related to Microsoft, Apple, and Google, belong to the companies mentioned above.

2) Overview

Provision-ISR IP speakers come in various shapes and designs to suit indoor and outdoor installations. They are fully compatible with SIP and ONVIF protocols, making them ideal for use in VoIP and security applications.
With support for up to 10 RTP multicast addresses, Provision-ISR IP speakers enable flexible paging solutions. Additionally, alarm input and HTTP URL capabilities allow integration with alarm systems. Pre-recorded messages and scheduled broadcasting cater to diverse paging needs.
The 48K OPUS Audio Codec ensures excellent sound quality, making these speakers perfect for announcements, background music, and security alarms in schools, factories, hospitals, and other environments.

3) Speaker Activation

The speaker's default state is “Inactive”. This means that the speaker must be activated before it can be used.
The default IP setting of the IP Speaker is set to DHCP. Look in the IP Manager Tool for it and double click top open the browser. When browsing to the speaker for the first time, you will be prompted to activate it. Use the default credentials admin/123456 for the first login, then you will be prompted to set the new admin password and click save (Note: the activation password must contain at least 8 characters and include 1 letter, 1 number, and 1 special character).



4) Remote Access

The speaker page is based on HTML, therefore supports all modern browsers (Chrome, Firefox, Safari, Opera, Edge), and can also work on Edge in IE mode.

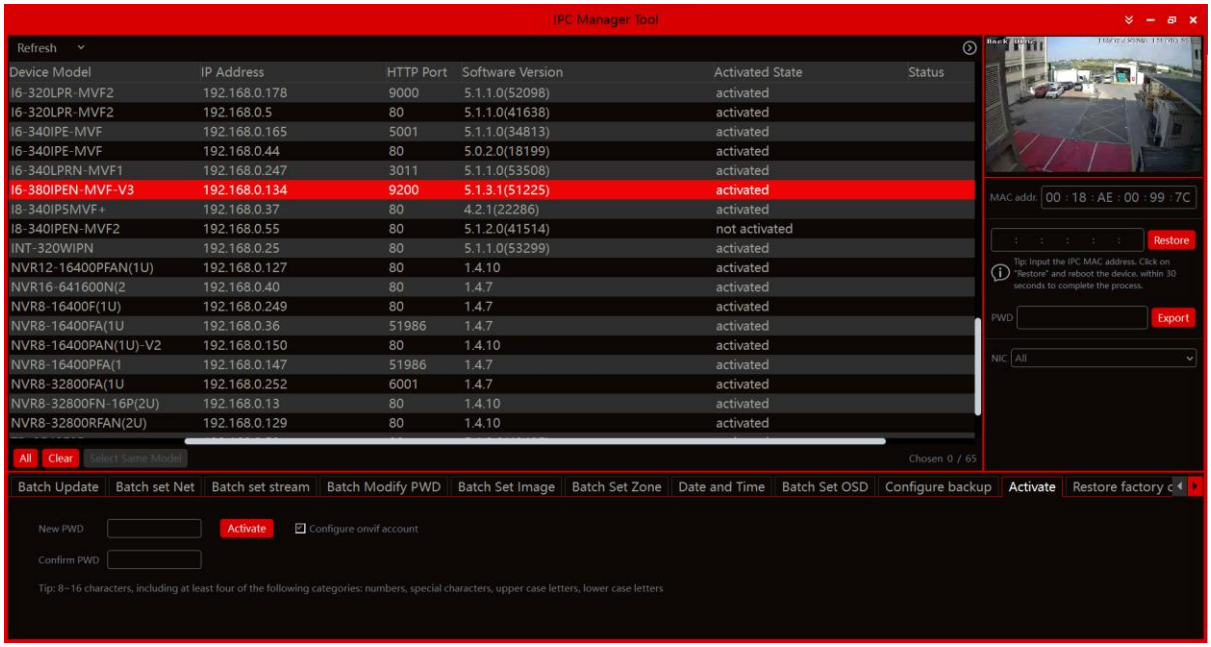
4.1) LAN

In LAN, there are two ways to access IPC:

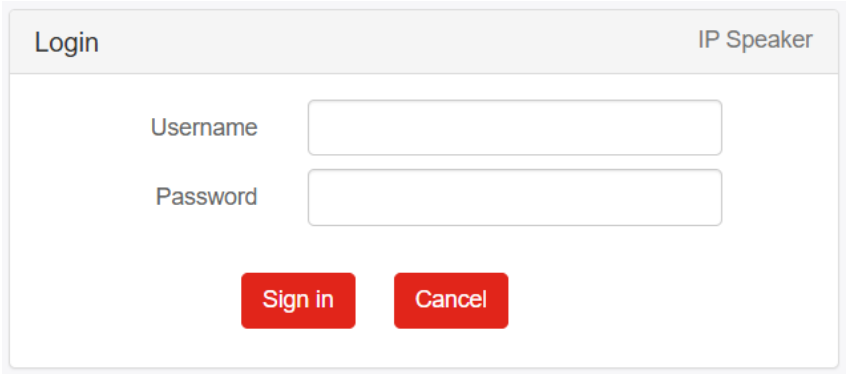
1. Access through IP Manager Software.
2. Direct access through IE browser.

4.1.1) Access through the IP Manager Tool

1. Make sure the PC and IPC are connected to the LAN and that the IP Manager is installed on the PC. You can download the IP manager from here.
2. Double-click the IP-Manager icon on the desktop to run this software.



3. Double-click on the IP address of the device you want to connect to. The system will automatically open a browser and connect to the device. A login window will appear as shown below.



Input the username and password to log in.

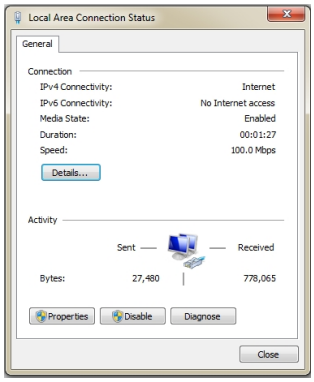
4.1.2) Direct Access through Web-Browser

In case there is no DHCP server available in the network, the default network settings will be as shown below:

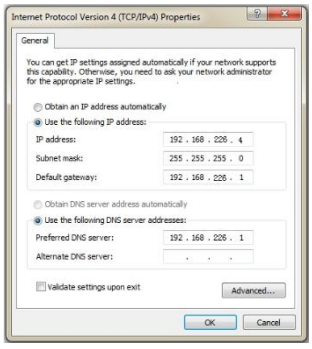
IP address: 192.168.226.201
Subnet Mask: 255.255.255.0
Gateway: 192.168.226.1
HTTP: 80
Data port: 9008

You may use the above default settings when you log in to the speaker for the first time.

1. You can use the IP manager to access the speaker even if the speaker is still using the default IP address. Double-click on the IP address within the IP manager for the system to open your default web browser and browse to the speaker. You can then set the IP address from the speaker configuration menu.
2. If you wish to access the speaker using its default IP address (192.168.226.201) you will have to manually set the IP address of the PC to be in the same IP segment as the default settings of the IP speaker. Open the network and sharing center. Click “Local Area Connection” to pop up the following window.



Select “Properties” and then select internet protocol according to the actual situation (most probably you are using IPv4). Next, click on the “Properties” button and set the network of the PC as shown on the right.



Open your preferred web browser, input the IP address of IPC and confirm. Input the default username and password and click “Login”.

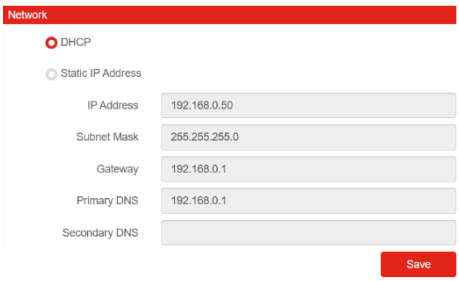
4.2) WAN

4.2.1) Direct Access through IP/DDNS

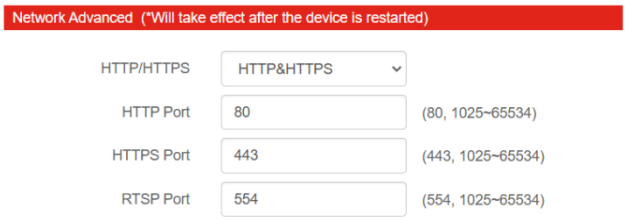
Allows you to access the speaker using a router or virtual server.

1. Make sure the speaker is well connected and configured via LAN. Log in to the speaker via LAN and go to the Config→Network Config→Port menu to set up the port number.
2. Go to Config→Network Config→TCP/IP menu to modify the IP address.

3. After modifying the IP Address, click on “Port” and modify the port according to your needs.



IP Setup

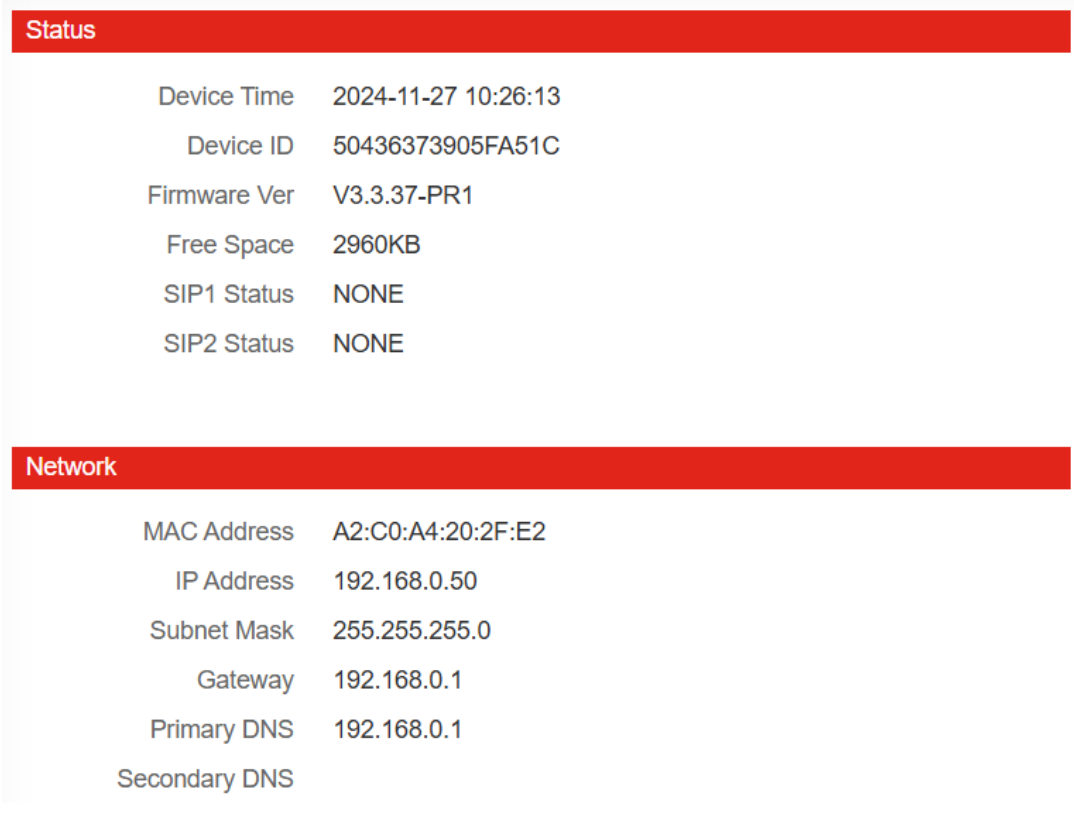


Port Setup

4. Go to the router’s management interface through your browser to forward the IP address and port of the speaker to the “Virtual Server”. In the picture example below, you will see an example of the setting as if the IPC IP address is “192.168.6.6” and the ports are default (9008 & 80)
   Default Ports:
   HTTP Port (Default is 80) is for HTTP
   HTTPS Port (Default is 443) is for HTTPS
   RTSP Port (Default is 554) is for RTSP

5) Device Settings

5.1) Status

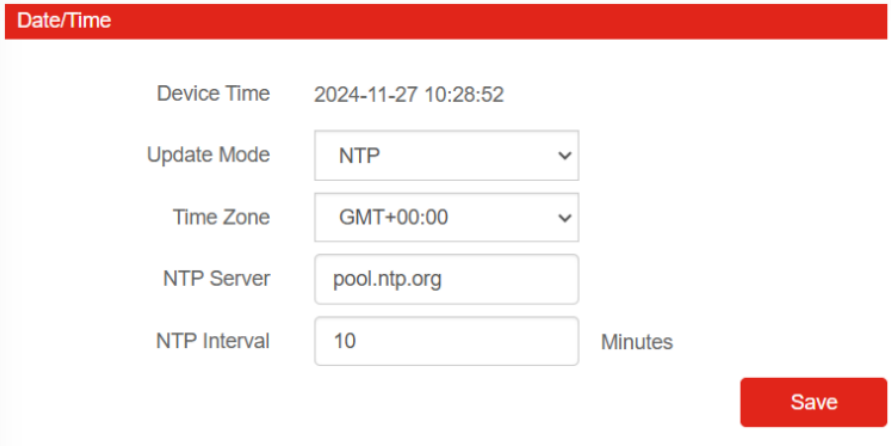


The status page shows the general status of the speaker. This includes the time, ID, Firmware version, Free space available for audio files, SIP status and Network status.

5.2) Basic Configuration

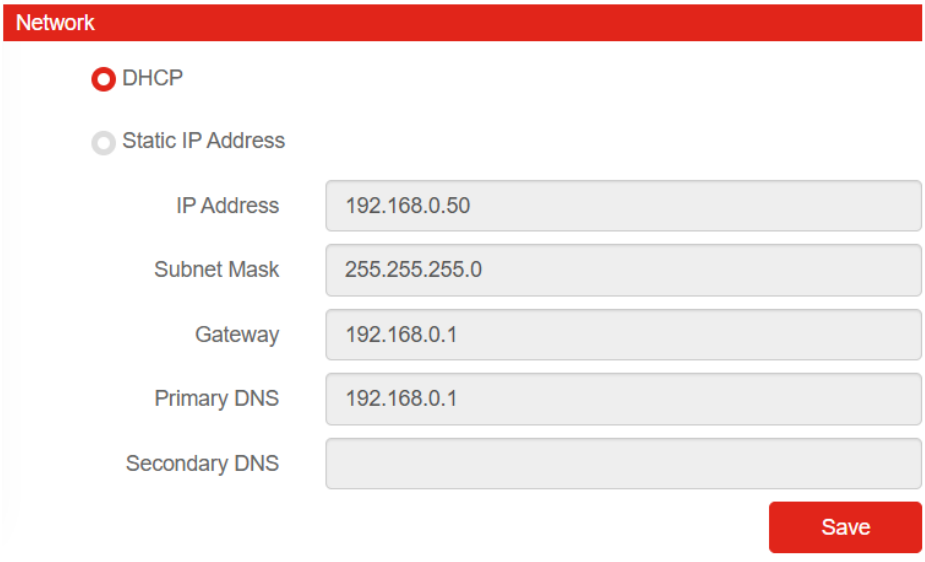
In the basic config you will have Date/Time settings and Network settings.

5.2.1) Date Time



1. **Update mode:** You may synchronize the speaker time with an NTP server and set the NTP time correction intervals (Internet connection required).
   To synchronize the speaker time with the time of the computer you are using, set the “Update mode” to “Local Time”
2. Set the time zone.
3. Set the NTP Server and Intervals

5.2.2) Network



There are two options for IP setup: DHCP or a defined static IP address. You may choose one of the options as required.

DHCP (Automatic IP Assignment): Use “DHCP” for the speaker to communicate with an available DHCP server that will assign the speaker with an IP address automatically.

Please note:

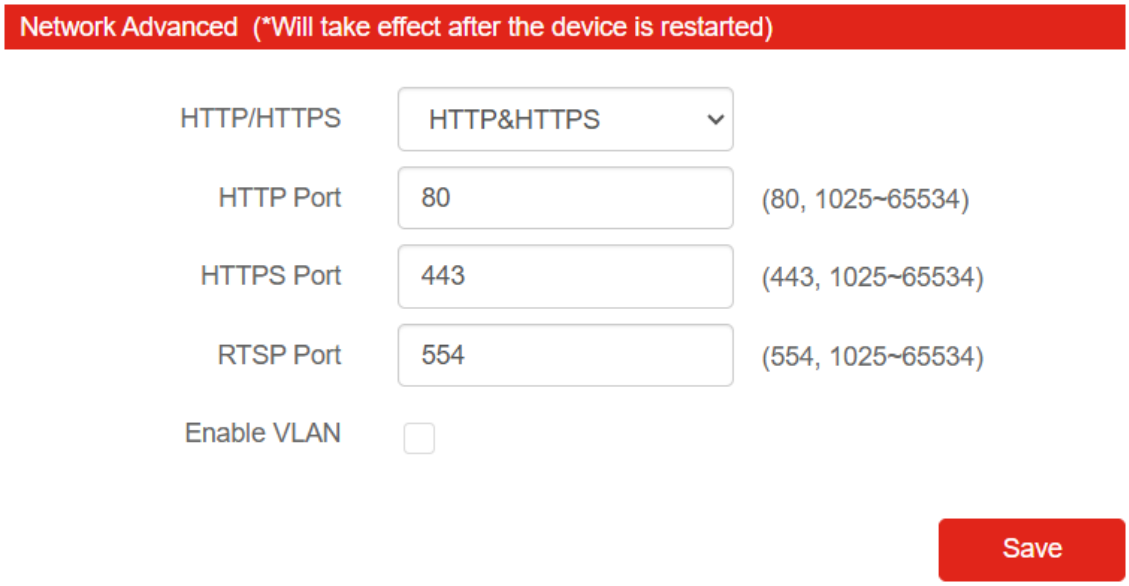
- For the DHCP mode to work, you must have a DHCP server on your network.
- Using DHCP for permanent installations is not advisable as the IP Address might change after a while and cause the speaker to be unreachable.

Static IP Address: If you wish to set static IP addresses, choose “Use the following IP Address”, set the range of IP addresses you wish to assign (First and last address), set the gateway and subnet mask, and click on batch set. Wait for a few moments until the IP manager will configure the speakers. After configuration, the IP addresses of the speakers will refresh automatically.

Please note:

- The selected IP address must be available

5.2.3) Network Advanced

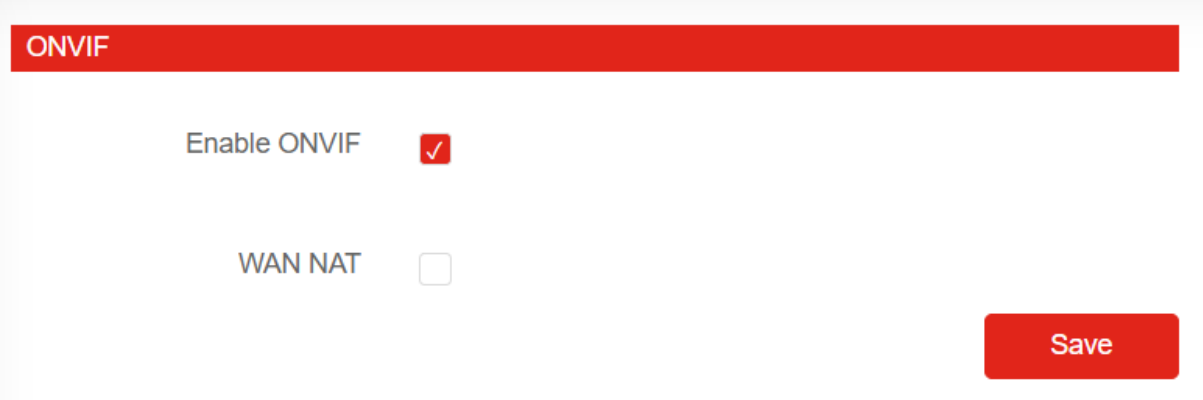


Select the communications protocols that will be enabled (HTTP, HTTPS or both HTTP&HTTPS).
Set the ports for HTTP/HTTPS/RTSP and set the VLAN if needed.

5.3) ONVIF

ONVIF (Open Network Video Interface Forum) is a global standardization initiative that enables interoperability and compatibility between IP-based physical security products like cameras, recorders, and access control systems.

Keep the ONVIF enabled for best compatibility.

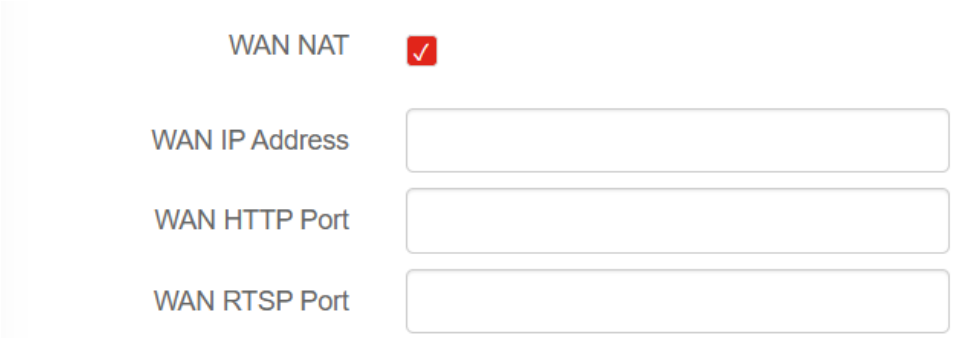


5.4) WAN NAT (Under ONVIF)

To enable communication between your server and the public internet, you'll need to configure Port Forwarding on your router. This will direct incoming traffic from specific ports on the public internet to the correct device on your local network.

Once you've set up port forwarding on your router, proceed to the speaker's web interface and enable the WAN NAT feature.

Here's what you'll need to configure:
IP Address: The IP address of your server on your local network.
HTTP Port: The port number used for HTTP communication (usually 80 or 8080).
RTSP Port: The port number used for RTSP communication (usually 554).
By correctly configuring WAN NAT and port forwarding, you'll ensure that incoming requests from the internet reach your server and that the server can send responses back to the internet.



5.5) SIP Account

SIP (Session Initiation Protocol) is a signaling protocol used to establish, manage, and terminate real-time communication sessions, such as voice, video, and messaging, over IP networks.
The speaker support up to 2 independent SIP accounts.

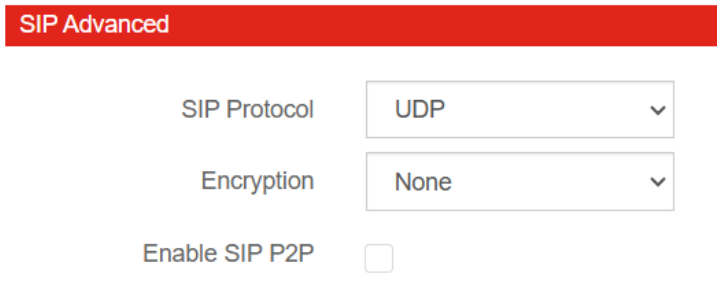
5.5.1) SIP Set

Set the SIP account(s) as required. Following the guide below

Parameter	Meaning
User Name	User account, provided by SIP server
Auth ID	SIP service subscriber's ID used for authentication.
Password	Account password provided by SIP server
Display Name	SIP service subscriber's name
Server Host	SIP server address
Server Port	SIP port, default to be 5060
Outbound Proxy	It is used to process signals and help data streams to go through firewall or NAT if there have.
Proxy Server	Proxy server address (If needed)
Proxy Port	Proxy server port (If needed)
Expire Time	Set the expire time of registered account information
Ringing Tone	5 system ringtones and 10 users upload media files
Auto Answer	answer immediately and answer delay when there is an incoming call
Incoming Notify	Set notification for incoming call
HTTP URL	URL for playing HTTP audio stream for incoming call
Answer Notify	Set notification for answered call
HTTP URL	URL for playing HTTP audio stream for incoming call

5.5.2) SIP Advanced

Set advances parameters for SIP communication.



1. Select the SIP Protocol (UDP/TCP/TLS)
2. Select the Encryption type (None/SRTP)

3. Enable/Disable SIP P2P (Peer-to-Peer SIP) functionality as needed.
   If your devices are on the same local network, you only need to provide the SIP addresses of the user agents in the format sip:<local IP address>. For example, a SIP address might look like this: sip:192.168.0.212.

5.6) Audio

Set all the Audio parameters as required.

5.6.1) Codec

Select the active audio codes as required out of the 4 options (OPUS, G.722, G.711U, G.711A)

Please note:

- At least 1 codec must be enabled for the speaker to play sounds.

5.6.2) Speaker

Set all speaker settings and advanced properties as follows.

Parameter	Meaning
Volume (0-100)	Speaker output volume
Amp Auto OFF	If set to “Yes” the internal amplifier will turn off while the speaker is not in use. This dramatically reduces device wear and power consumption.
Jitter Buffer (60 - 2000)	Set the buffer to prevent the streaming audio from breaking. The longer the setting, the more stable the audio will be, on the expense of reduced real-time response.
HPF	HPF (High Pass Filter) filters audio frequencies below 150HZ to reduce background noises
NR	Enable noise reduction to improve audio input quality. This feature leverages the power of the chip to calculate and simulate noise reduction, resulting in clearer and more pristine sound.

5.6.3) Microphone (If applicable)

Set all microphone settings and advanced properties as follows.

Parameter	Meaning
Gain	Set the gain level from the 4 levels (None-High)
Volume (0-100)	Microphone input volume
AEC	AEC (Acoustic Eco Cancellation) Eliminates echo in audio communication by removing feedback from the speaker's output detected by the microphone
AGC	Automatic Gain Control
HPF	HPF (High Pass Filter) filters audio frequencies below 150HZ to reduce background noises
NR	Enable noise reduction to improve audio input quality. This feature leverages the power of the chip to calculate and simulate noise reduction, resulting in clearer and more pristine sound.
NR Level	Set the noise reduction level

5.7) Media File

Manage the speaker internal media files. There are 2 type of files, internal (That are fixed and cannot be edited) and User Files which are managed by the user

5.7.1) System Files

There are 5 bell sounds as an integral part of the speaker.

You can click on the ⊙ icon to listen from the PC or click on the 🔊 button to listen from the speaker side.

5.7.2) User Files

The user can upload up to 10 files in a total size of ~3800KB.

Add a file:

Click on Choose File to select the file (mp3 and wav are supported). Click on ⊙ to upload the file to the camera.
You can click on the ⊙ icon to listen from the PC or click on the 🔊 button to listen from the speaker side.

Delete a file:

Click on the 🗑 icon to delete the file.

5.8) Alarm

5.8.1) Alarm (If applicable)

If your speaker is equipped with Alam input (I/O), you can use the alarm input to trigger an event as follows:

Parameter	Meaning
Play File	Enable to play a file stored on the speaker
File	Choose the play to be played
Cycle Mode	Set the file playing scheme.
Trigger SIP	Enable to initiate a SIP call
SIP Account	Choose the SIP account to be used
SIP Number	Input the SIP number to be used
HTTP Stream	Enable HTTP file streaming
HTTP Stream URL	Set the HTTP URL containing the file to be streamed. For example: http://listen.livestreamingservice.com/181-power_128k.mp3

5.8.2) HTTP URL

Enable the API if required. In this interface you will see different examples for using the API

Playing the file "bell1":
http://192.168.0.50/api/play?action=start&file=bell1

Playing the file "userfile1" once on volume 10:
http://192.168.0.50/api/play?action=start&file=userfile1&mode=once&volume=10

Playing the file "userfile1" 10 times on volume 20:
http://192.168.0.50/api/play?action=start&file=userfile1&mode=multiple&count=10&volume=20

Playing the file "userfile1" for 10 seconds on volume 30:
http://192.168.0.50/api/play?action=start&file=userfile1&mode=duration&count=10&volume=30

Stop Playing:
http://192.168.0.50/api/play?action=stop

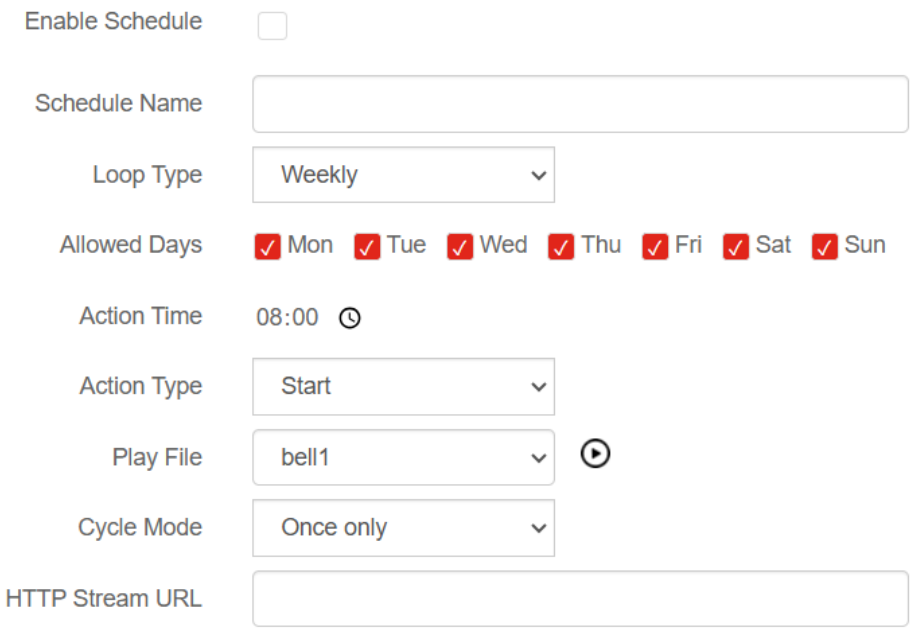
Stream audio from HTTP URL http://xxxxx:
http://192.168.0.50/api/play?action=startstream&stream=http://xxxxxx

Stop Audio Streaming:
http://192.168.0.50/api/play?action=stopstream

5.9) Schedule

Below are the schedule settings. Enable the schedule if required and set the required actions. Up to 10 schedules can be set.

To add/edit a schedule click on the icon. The following interface will open.



Set it as follows:

Parameter	Meaning
Enable Schedule	Tick it to activate the specific schedule setting
Schedule Name	Set a name to help you identify the schedule
Loop Type	Set the repeating rules for the Schedule: **Once Daily** will let you set a start and end date with a time for performing the required action. **Daily:** will let you set the time for performing the required action. **Weekly:** will let you set the days and time for performing the required action.
Action type	Start/Stop the audio playing
Play File	Choose the file to play from the internal speaker memory
Cycle Mode	Set the repeating rules for the file play: **Once Only:** Play the file once and stop. **Multiple Time:** Play the file for certain number of times, then stop. **Duration:** Play the file for the defined duration in seconds. **Infinite**: Play the file until stopped
HTTP Stream URL	Set the HTTP URL containing the file to be streamed. For example: http://listen.livestreamingservice.com/181-power_128k.mp3

5.10) RTP Multicast

RTP multicast allows efficient delivery of real-time media streams to multiple devices simultaneously by transmitting data to a multicast group address.
The speaker supports for 10 RTP Addresses.

Please note:
Port Allocation: Avoid using continuous port numbers for the same RTP address. Instead, use discontinuous port numbers.
Incorrect Example:
239.255.1.2:8000, 239.255.0.1:8001, 239.255.0.1:8002 (×)
Correct Example:
239.255.0.1:8000, 239.255.0.1:8002, 239.255.0.1:8004 (√)
Multicast Address Range: 224.0.0.0 to 239.255.255.255.
Port Range: 1024 to 65536.

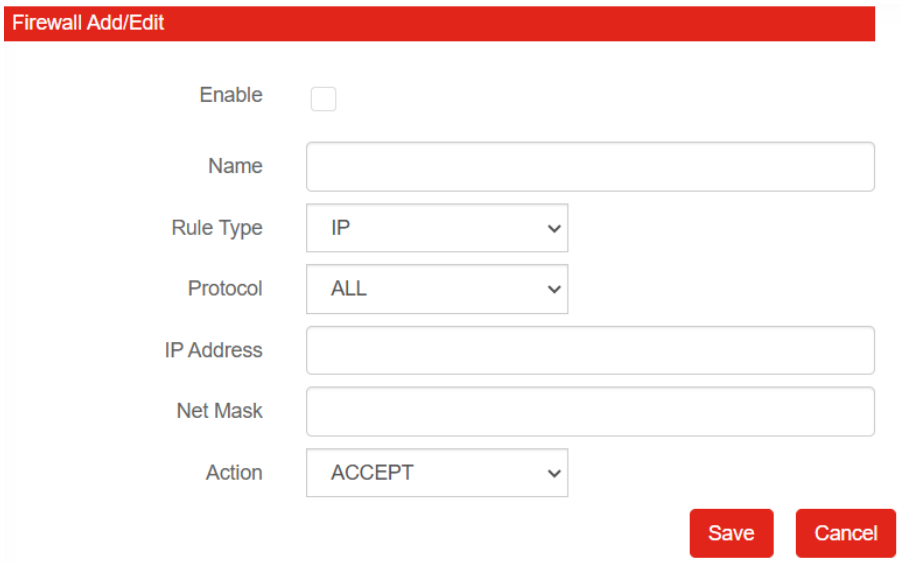
5.11) Firewall

5.11.1) Firewall Rules

The firewall works as “Block and Allow” lists allow the user to create lists of IP/MAC addresses that will be allowed or denied for connection.

Once a “Drop” list is created, all devices except the blocked devices will be allowed to connect to the speaker.
Once an “Accept” list is created, all devices except the allowed devices will be blocked from connecting to the speaker.

To add/edit an entry click on the icon. The following interface will open



Set it up accordingly.

Parameter	Meaning
Enable	Tick it to activate the specific rule
Name	Set a name to help you identify the schedule
Rule Type	Set it to IP/MAC
Protocol	Choose All/UTP/TCP (If rule type is set to IP)
Play File	Choose the file to play from the internal speaker memory
MAC Address	Set the MAC address (If rule type is set to MAC)
Action	Set weather to accept the rule above or drop it

5.12) Auto Provision

Auto provision allows to set multiple IP speakers in a simple way.

1. If you wish for the IP Speakers to update their settings from a TFTP/HTTP/FTP server, set the “Static Provisioning Server” accordingly.
2. On the destination server, set a file called “xxxxxxxxxxxx.cfg” where “xxxxxxxxxxxx” represents the MAC address of the IP Speaker
3. Set the content of the file as follows:

```
sip.1.enable      = 1
sip.1.serveraddr  = 192.168.5.213
sip.1.serverport  = 5060
sip.1.protocol    = udp
sip.1.srtp.enable = 0
sip.1.displayname = 6000
sip.1.username    = 6000
sip.1.authid      = 6000
sip.1.password    = 6000
sip.1.expiretime  = 360
sip.1.proxy.enable = 0
sip.1.proxy.server =
sip.1.proxy.port   =
sip.1.ringtone     = 1
sip.1.answermode   = 0
sip.1.answerdelay  = 3
sip.2.enable      = 1
sip.2.serveraddr  =
sip.2.serverport  =
sip.2.protocol    = udp
sip.2.srtp.enable = 0
sip.2.displayname =
sip.2.username    =
sip.2.authid      =
sip.2.password    =
sip.2.expiretime  = 3600
```

```
sip.2.proxy.enable = 0
sip.2.proxy.server =
sip.2.proxy.port   =
sip.2.ringtone     = 1
sip.2.answermode   = 0
sip.2.answerdelay  = 3
audio.codec        = opus,pcmu,pcma,gsm,g722
audio.spk.volume   = 60
audio.spk.ampauto  = 1
audio.spk.jitterbuf = 60
audio.spk.hpf       = 0
audio.spk.nr.enable = 0
audio.mic.gain      = 0
audio.mic.volume    = 80
audio.mic.aec.enable = 1
audio.mic.agc.enable = 1
audio.mic.agc.level  = 3
audio.mic.hpf        = 0
audio.mic.nr.enable  = 1
audio.mic.nr.level   = 1
```

5.13) System

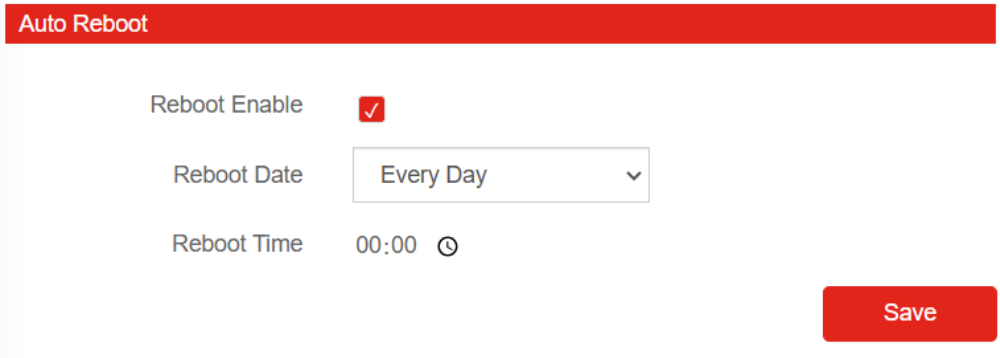
On the system page you can set all the basic configuration for the IP Speaker

5.13.1) Maintain

Parameter	Meaning
Log	Show the IP Speaker log
Reboot	Manually Reboots the IP speaker
Reset	Reset the IP Speaker to its factory default
Upgrade	Upgrade the IP Speaker Firmware. Choose file and click on “Upgrade”

5.13.2) Auto Reboot

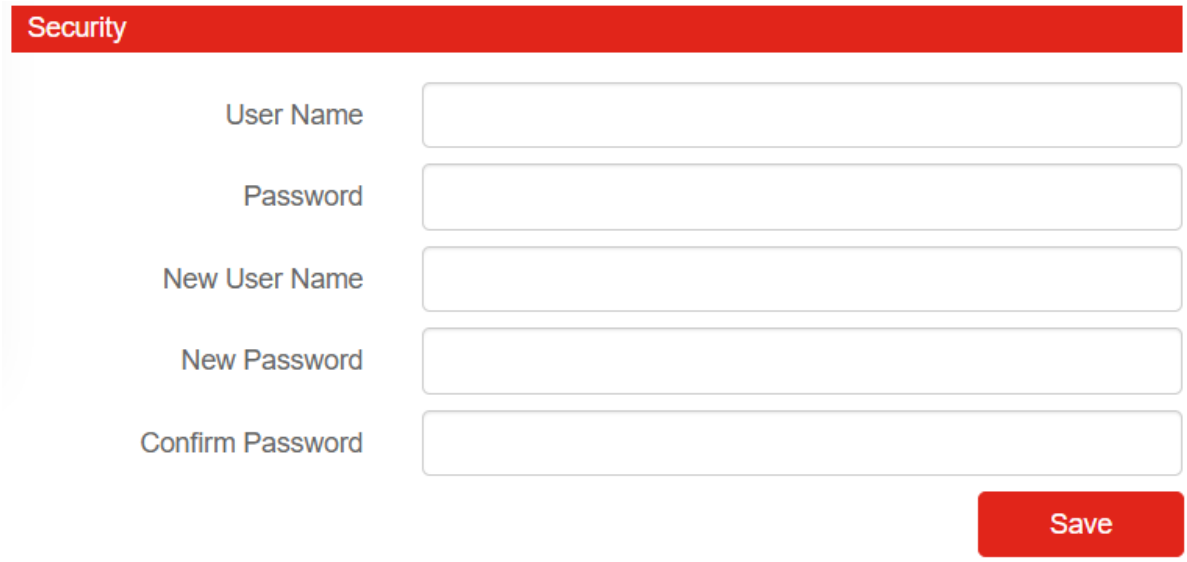
Auto reboots will reboot the speaker daily or weekly as configured



1. Enable it if needed.
2. Set the reboot day (Daily or on certain day of the week
3. Set the reboot time
4. Save

5.13.3) Security (User Settings)

The IP Speaker contains only one user with full authority. In this interface you can change the username or the password of the speaker user.



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