H601/H602 Series User Manual

Version：V1.0 | Date：2025.1.20

Content

1 Safety Instruction

1.1 Safety Instruction

Please read the following safety notices before installing or using this unit. They are crucial for the safe and reliable operation of the device.

- Please use the product-specified power adapter. If you need to use a power adapter provided by another manufacturer due to special circumstances, please confirm that the voltage and current of the provided adapter meet the specifications of this product, and it is recommended to use a product that has passed safety certification, otherwise it may cause fire or electric shock accidents. When using this product, do not damage the power cord, do not twist, stretch and strap it, and do not press it under heavy objects or sandwich between items, otherwise it may cause fire or electric shock caused by broken power cord.
- Before using the product, please confirm that the temperature and humidity of the environment in which it is located meet the working needs of the product.
- Do not attempt to open it. Non-expert handling of the device could damage it. Consult your authorized dealer for help, or else it may cause fire, electric shock and breakdown.
- Please refrain from inserting metal objects such as pins or wires into the vents or crevices. Doing so may cause electric shock accidents due to the passage of current through the metal objects. If foreign objects or similar metallic items fall inside the product, usage should be stopped promptly.
- Please do not discard or store the plastic bags used for packaging in places accessible to children to prevent them from covering their heads, leading to obstruction of the nose and mouth, which may cause suffocation.
- Do not install this phone in an ill-ventilated place. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents.

2 Product Overview

2.1 Overview

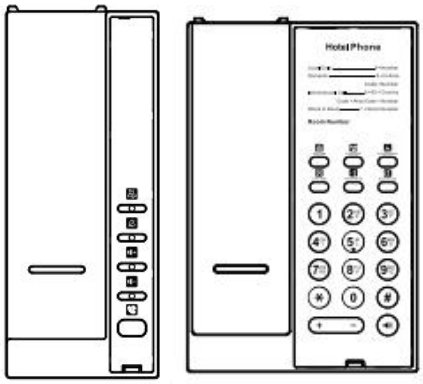
Fanvil H601/H601W/H602/H602W is a cost-effective, compact IP phone designed for hotels, featuring multiple programmable keys and supporting wideband Opus HD voice coding. H601W/H602W come with built-in 2.4GHz single-band Wi-Fi, supporting Wi-Fi 6, ensuring stable wireless connections and reducing hotel network deployment costs effectively. The compact design of H601/H601W allows for wall mounting, making it suitable for flexible deployment in various scenarios like hotels, malls, and hospitals, optimizing space and layout. This provides users with a convenient and efficient experience. Apart from hotel settings, the product is also suitable for applications in places such as malls and supermarkets.

2.2 Specification Parameter

Parameter	H601	H601W	H602	H602W
2.4GHz Wi-Fi	/	Support	/	Support
Wi-Fi 6	/	Support	/	Support
Wideband Coding	G.722, Opus	G.722, Opus	G.722, Opus	G.722, Opus
Network speed	10/100 Mbps	10/100 Mbps	10/100 Mbps	10/100 Mbps
PoEy	Support	/	Support	/
DSS Keys	2	2	6	6
Indicator light	1	1	1	1
IP mode	IPv4/IPv6/IPv4 &IPv6	IPv4/IPv6/IPv4 &IPv6	IPv4/IPv6/IPv4 &IPv6	IPv4/IPv6/IPv4 &IPv6
Installation	Wall Mount	Wall Mount	Desktop	Desktop

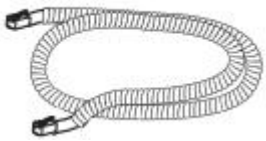
3 Installation Instructions

3.1 Device Inventory



IP Phone

Handset

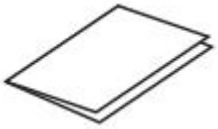


Handset Cord

Ethernet Cord

Accessory screws (onlyH601/H601W)

Power Adapter



Quick Installation Guide

3.2 Installation Procedure

3.2.1 Stand Installation

Please follow the instructions in the pictures below to install the phone.

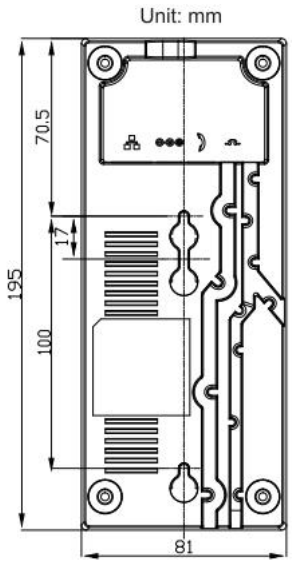
- **H601/H601W wall mount installation**:

1. Drill two holes on the wall with a vertical distance of 100mm between the two holes;

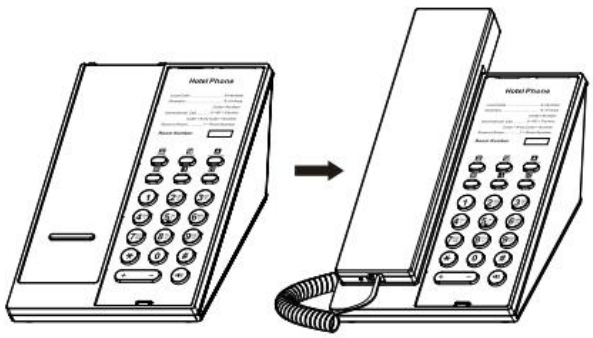
2. Insert two rubber plugs and screws in sequence, and leave 5mm between the nut and the wall to facilitate hanging the phone base;

3. Connect the network cable, handle cable and power supply;

4. Align the wall-mounting holes on the base with the screws installed in step 2 and slide down to complete the installation.



- **H602/H602W Desktop Installation**:



3.2.2 Network Configuration Steps For H601W/H602W

Method 1:

1. Enter **[Advanced Settings]** on the W611W, then go to **[Share Wi-Fi]** to enable the Wi-Fi sharing function and set the office network SSID and password. At this point, the W611W functions as an AP.

2. Power on the H601W/H602W devices.

3. After powering up, the W611W will push the office network SSID and password to the H601W/H602W, enabling them to connect to the office network. Once the Wi-Fi connection is successful, the power indicator will flash quickly 5 times.

Method 2:

1. The user creates a Wi-Fi network with the SSID "**WiFi-device-ssid**" and the password "**i<0%aY8+**".

2. After powering on, the H601W/H602W devices will automatically connect to this Wi-Fi.

3. Once the connection is successful, the power indicator will flash quickly 5 times. The Wi-Fi information of the H601W/H602W can be modified through automatic deployment to connect to the office network.

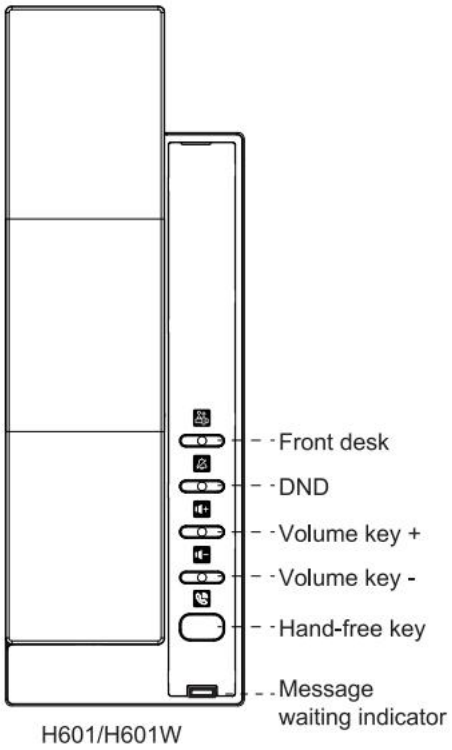
4. Wi-Fi module configuration file as shown:

```
<<VOIP CONFIG FILE>>Version:2.0000000000

<NET CONFIG MODULE>

--WIFI List--     :
Item1 WIFI Name        :Redmi K60
Item1 WIFI SSID        :Redmi K60
Item1 Secure Mode      :1
Item1 WIFI Encryption  :1
Item1 WIFI User Name   :
Item1 WIFI Password    :12345678

<<END OF FILE>>
```

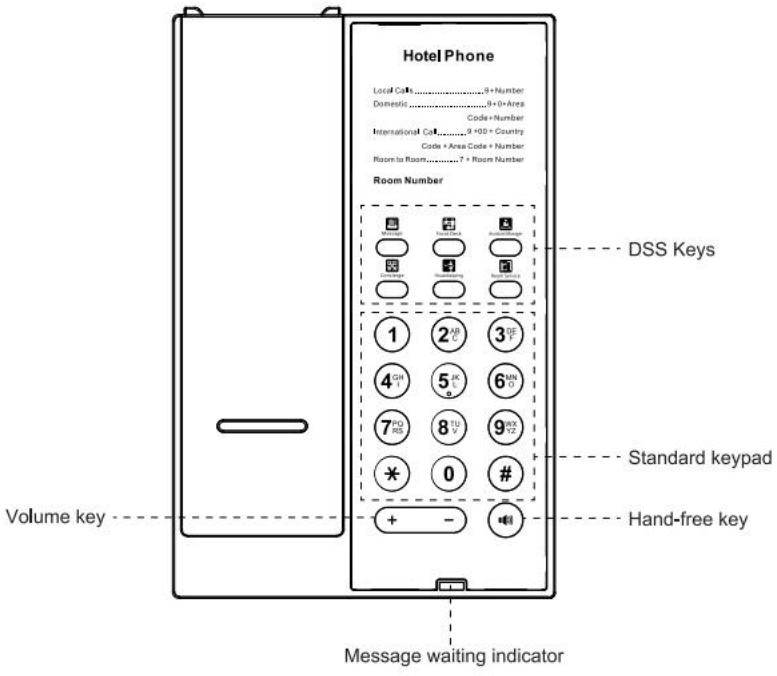
4 User Guide

4.1 Key Description

- H601/H601W:



- H602/H602W:



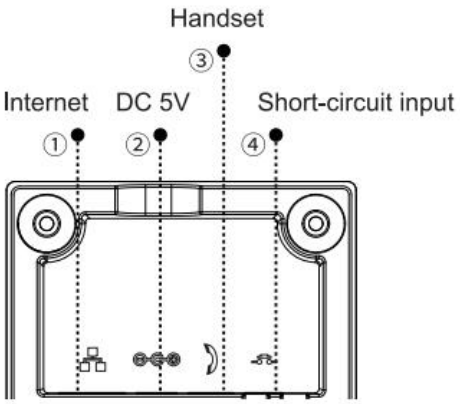
4.2 LED State Definition

The different LED states are shown in the table below:

Type	LED	State
Status indicator light	Red Flashing	Registration Failed, Network Error
	Red Slow Flashing	Missed call or unread message/voicemail.
	Red Flashing	Ringing
	Red Solid	DND

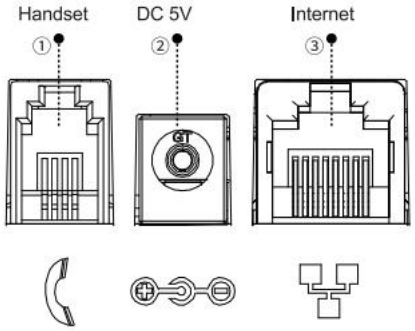
4.3 Interface Specification

- **H601/H601W**



Number	Interface	Description
①	Network Interface	Connect to LAN or Internet
②	Power interface	Connect the power adapter
③	Handset jack	Connect device handset
④	Short circuit input interface	Configurable short-circuit input function

- **H602/H602W**



Number	Interface	Description
①	Handset jack	Connect device handset
②	Power interface	Connect the power adapter
③	Network Interface	Connect to LAN or Internet

4.4 Device Status

Users can check the status of the device through the web page.

Log in to the web page, go to **[System] >> [Information]** page, and check the device status.

- System information: Displays device model name, hardware version number, software version number, running time, memory information, system time and other information.
- Network: Displays device network mode, MAC address, Ethernet IP, subnet mask, gateway and other information.
- Account: Displays the device registered account name/number, registration status and other information.

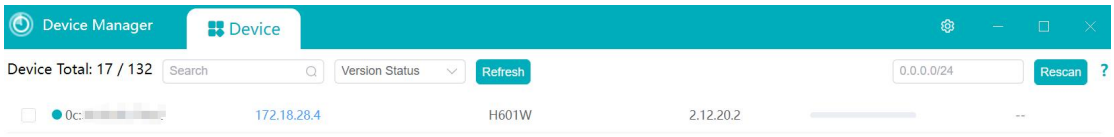
4.5 Web Management

4.5.1 Device IP Address

Retrieve Device IP through Scanning Tool:

1. The computer and device are connected to the same LAN, and Device Manager is installed on the PC.

2. Open the IP scanning tool (Device Manager), click on the scan button to obtain the IP address of the device within the local network.



Get the device IP through the device (the default is the English broadcast IP):

- H601/H601W: In standby mode, long press the "first shortcut key at the top" and the device will announce the IP address by voice.
- H602/H602W: In standby mode, long press the “#” key and the device will announce the IP address by voice.

4.5.2 Web Interface

Ensure that the computer and the device are on the same local network. Open a web browser, enter the obtained device IP, log in to the device's web page, and access the login page.

Users must enter the correct username and password to log in to the web page. The default username and password are both "admin."

4.6 Language Settings

Users can set the language for through the web interface.

Set language in the web interface:

Log in to the device's web page, then set the language from the drop-down menu in the top right corner of the page.When users check "Synchronic language to the phone," the webpage language will also synchronize the language on the LCD of the H6W phone. 

4.7 Line Settings

The device supports two SIP accounts simultaneously, Users can switch between two SIP accounts as needed and register SIP accounts through the web interface.

Users can register a SIP account through the web page by navigating to **[Line] >> [SIP] >> [Line]**. selecting the registered line, and registering the SIP account through **[Register Settings]**. After completing the SIP parameter settings, click **[Apply]** to successfully register.

SIP Parameters:

Parameters	Description
Line Status	On this page, the current status of the line is displayed. To obtain the latest online status, users must manually refresh the page.
Enable	The status of this line is 'Enabled'
Username	Enter the username of the service account.
Authentication User	Enter the authentication name of the service account.
Display Name	Enter the display name shown when a call request is sent.
Authentication Password	Enter the authentication password of the service account.
Server Address	Enter the SIP server address.
Server Port	Enter the SIP server port.

5 Call Features

5.1 Making Calls

5.1.1 Making Calls

H601/H601W:

- The user presses the first DSS Key, which can be called out with one key.

> **Notice**:
> One-touch dialing requires a number with DSS key set. For details on setting, see: DSS Key settings.

H602/H602W:

- After the user presses the hands-free button or picks up the handset, enters the calling number and presses **"#"** to make a call;
- The user directly inputs the calling number and presses **"#"** to make a call, or picks up the handset to make a call directly..

5.1.2 IP Call

The user can enter the dialing interface by picking up the handset or pressing the hands-free key, enter the IP address of the peer device, and press **"#"** to make a call..

> **Note**：
> - Replace the "." in the IP address with "*".
> - Only H602/H602W supports IP calling by inputting IP address via numeric keypad.

5.1.3 DSS Key Call

Configure speed dialing on the web page:

Go to web, **[Function Key] >> [DSS Key]**, type select **[Memory Key]**, enter the SIP account or IP address, subtype select **[Speed Dial]**. In standby mode, pressing this key directly initiates a quick call to the configured number.

5.1.4 Speed Dialing Call

H602/H602W: Long press a number key in standby mode to call. See **Speed Dial Settings** for details.

5.2 Answer Call

5.2.1 Manually Answer

Users can answer calls by picking up the handset or pressing the speakerphone button to open the speakerphone channel.

5.2.2 Auto Answer

Users can enable the auto-answer feature on the web page, allowing the phone to automatically answer incoming calls. Auto-answer can be enabled separately for each line. When disabled, the phone will ring upon an incoming call, and it won't automatically answer after a timeout.

Auto Answer Enabled For Line:

Log in to the device's web page, go to **[Line] >> [SIP] >> [Basic Settings]**， check

[Enable Auto Answering]. After setting **[Auto Answering Delay]**, click **[Apply]**.

Auto Answer Enabled For IP Call:

Log in to the device's web page, go to **[Line] >> [Basic Settings] >> [SIP P2P Settings]**. Check **[Enable Auto Answering]**, set the mode and auto-answer time, then click **[Apply]**.

5.3 End The Call

When the user finishes the call, he can end the current call by putting the handle back or pressing the hands-free button.

- Hold the handset to talk, and put down the handset to end the call.
- During a hands-free call, press Speaker to end the call.

5.4 Reject The Call

5.4.1 Do Not Disturb(DND)

Users can activate the "Do Not Disturb" (DND) feature on the web to reject incoming calls.

Set via the web page:

Log in to the device's web page, go to **[Phone settings] >> [Features] >> [DND settings]**.Select line or phone to enable the DND function. You can also schedule DND to automatically activate and deactivate at specific times. And then click **[Apply]** to activate.

Set via Function Key:

Go to the device webpage >> **[Function Keys]** >> **[Function Keys]**, set a DSSKey as a **[Function Key]**, and select **[Do Not Disturb]** as the subtype. Click **[Submit]** to save. Once set, press the shortcut key in standby mode to enable DND.

6 Advance Function

6.1 MCAST

The MCAST function allows for easy and convenient broadcasting of announcements to every member of the multicast group. By setting the MCAST on the phone, multicast RTP streams can be sent to pre-configured multicast addresses. By configuring the listening multicast address on the phone, it can listen to and play RTP streams sent to that multicast address.

Users can configure the multicast listening address and port through the web page **[Phone settings] >> [MCAST]**.

Configuration parameters:

Parameters	Description
Priority	Defines the priority in the current call, with 1 being the highest priority and 10 the lowest.
Enable Page Priority	Regardless of which of the two multicast groups is called in first, the device will receive the higher priority multicast first.
Enable Prio Chan	When enabled, the same port and channel can only be connected. Channel 24 is the priority channel, higher than 1-23; channel 0 means not to use the channel.
Enable Emer Chan	When enabled, channel 25 has the highest priority.
Name	Set the multicast name.
Host:port	Set the multicast server address and port.
Channel	0-25 (24: Priority Channel, 25: Emergency Channel).

MCAST Dynamic：

Send multicast configuration information through **SIP Notify** signaling. After receiving the message, the device configures it to the system for multicast monitoring or cancels multicast monitoring in the system.

6.2 Hotspot

SIP hotspot is a simple utility. Its configuration is simple, which can realize the function of group vibration and expand the quantity of sip account.

Take one device A as the SIP hotspot and the other devices (B, C) as the SIP hotspot client. When someone calls device A, devices A, B, and C will ring, and if any of them answer, the other devices will stop ringing and not be able to answer at the same time. When A B or C device is called out, it is called out with A SIP number registered with device A.

Users can set up a SIP Hotspot on the web page of **[Line] >> [SIP Hotspot]**.

Configuration parameters:

Parameters	Description
Enable Hotspot	Enable or disable hotspot
Mode	Selecting 'SIP Hotspot' indicates that this device exists as a SIP Hotspot. Selecting 'Client' indicates that this device exists as a client."
Monitor Type	The monitoring type can be broadcast or multicast. If you want to restrict broadcast packets in the network, you can choose multicast. The type of monitoring on the server side and the client side must be the same, for example, when the device on the client side is selected for multicast, the device on the SIP hotspot server side must also be set for multicast.
Monitor Address	The multicast address used by the client and server when the monitoring type is multicast. If broadcasting is used, this address does not need to be configured, and the system will communicate by default using the broadcast address of the device's wan port IP.
Local Port	Fill in a custom hotspot communication port. The server and client ports need to be consistent.
Name	Fill in the name of the SIP hotspot. This configuration is used to identify different hotspots on the network to avoid connection conflicts.

Line Settings	Sets whether to enable the SIP hotspot function on the corresponding SIP line.

Client Settings:

As a SIP hotspot client, there is no need to set up a SIP account, which is automatically acquired and configured when the device is enabled. Just change the mode to "client" and the other options are set in the same way as the hotspot.

The device is the hotspot server, and the default extension is 0. The device ACTS as a client, and the extension number is increased from 1 (the extension number can be viewed through the **[SIP hotspot]** page of the webpage).

Calling internal extension:

- The hotspot server and client can dial each other through the extension number before.
- Extension 1 dials extension 0.

6.3 MWI

If the service of the lines supports voice message feature, when the user is not available to answer the call, the caller can leave a voice message on the server to the user.

Voicemail Prompt:

Users can configure the power LED display status when receiving voicemails via the web page **[Phone settings] >> [Features] >> [Power LED]**.

Listen to voicemail:

To listen to voicemail, you must enable voicemail for that line and fill in the voicemail retrieval number. Users can enable and fill in this information on the web page**[Line] >> [SIP] >> [Basic Settings] >> [Voice Messege Number]**.

Users can configure the voicemail function key on the web page**[Function Key] >> [DSS Key]**. Select "Key Event" as the type and "Voice Mail" as the subtype. After configuration, users can press the voicemail function key to call the voicemail number, follow the prompts to enter the PIN code, and listen to their voicemail.

7 Device Settings

7.1 Time Plan

The Time Plan feature allows users to set specific actions to occur at either a particular time or within a period. A time point triggers an action at a specific moment, while a period triggers an action during a specified duration.

Users can access this functionality through the web page under **[Phone Settings] >> [Time Plan]**. They can define a Name, Type, Repetition Period, along with the effective date and time, then click 'Add'. Once configured, the device will execute the designated action at the specified times.

Parameters：

Parameters	Description
Name	Enter a defined action name
Type	Timing reboot, timing upgrade, timeing config
Repetition	Do not repeat: execute once within the set time range Daily: Perform this operation in the same time frame every day Weekly: Do this in the time frame of the day of the week Monthly: the time frame of the month to perform this operation
Start date	Effective date
End date	End date
Effective Time	Set the time period for execution

Note:
If there's an ongoing call within the set time frame, skip and do not execute the restart or upgrade operation.

7.2 Action Plan

Action Plan application: a technical implementation defined and designed by Fanvil for remote control and behavior linkage between Fanvil terminal equipment and other equipment. That is, when an event occurson the Fanvil terminal, the terminal can perform an action, and this action is completed according to a Plan rule.

Setting method:

Users can visit the website **[Line] >> [Action Plan]** to configure action plan rules. After the setting is complete, the configuration is assigned to the corresponding device and updated, and the corresponding terminal will perform the corresponding action when the event occurs.

Parameter description:

Parameter	Description
Action	Action when the number configuration rule is triggered. Supported types are: Mute: The device automatically mute when the rule is triggered. Answer: The device automatically answers the call when the rule is triggered. MCAST: When a rule is triggered, the IP phone will convert the incoming call or multicast into multicast and send it to the configured multicast address and port.
Number	The dialing number corresponding to each Action Plan; supports the same number expression as the Dial Plan.
Type	Types of Time Periods When Rules are Triggered, including: Early: trigger execution before call establishment. Connected: trigger execution after call establishment.
Line	The selected rule corresponds to the matching SIP line.
Direction	Corresponding Handling Methods for Configured Rules: Both: Triggered for both inbound and outbound calls;

	Outgoing call: Triggered for outbound calls; Incoming call: Triggered for inbound calls.

7.3 Maintenance

7.3.1 Configurations

Users with administrator privileges can view, export, or import the phone configuration, or restore the phone to factory Settings.

- **Export Configurations**

  Right click to select target save as, that is, to download the device's configuration file, suffix ".txt", ".xml" (**Note: profile export requires administrator privileges**).

- **Import Configurations**

  Import the configuration file of Settings.

- **Clear Configuration**

  Select the modules to be cleared in the configuration file.

  SIP: Account-related configurations

  AUTOPROVISION: Automatic upgrade-related configurations

  TR069: TR069-related configurations

  MMI: MMI module, including authenticated user information, web access protocol, etc.

  DSSkey: DSSkey configurations

  Basic Network: Basic network settings

- **Clear User Data**

  Select the local data tables to be cleared, default is all selected.

- **Reset Device**

  All device data will be cleared, including configurations and database tables.

7.3.2 Upgrade

7.3.2.1 Web Upgrade

Upgrade the device software version by upgrading to the new version through the web page. Once the upgrade is completed, the device will automatically restart and update to the new version.

[System] >> [Upgrade] >> [Software Upgrade], select the file, choose the version, then click "**upgrade**".

7.3.2.2 Online Upgrade

Through online upgrading, devices can be upgraded.

Configuration for online upgrade by the administrator on the web page:

- Access the web page **[System]>>[Upgrade]>>[Upgrade Server]**, configure the upgrade server, and the update cycle, etc. Place the upgrade TXT file and software on the corresponding server. When the device detects that the software version number on the server is different from its own software version number, it will prompt for an upgrade

Configuration parameter description:

Parameter	Description
Upgrade Server	
Enable Auto Upgrade	Check enable automatic upgrade, and the device can detect the txt version information and available versions in the HTTP server.
Upgrade Server Address1	Fill in the available primary upgrade server (HTTP server) address.
Upgrade Server Address2	Fill in the address of the available backup upgrade server (HTTP server). When the primary server is unavailable, request the backup server.
Upgrade Interval	The web page starts to automatically detect the upgrade and configure the interval. If the server has a new version, the

	device will prompt for the upgrade at the interval.
Software Version information	
Current Software Version	Displays the current device software version number.
Server software version	Displays the server software version number.
[Upgrade] button	When there is a corresponding TXT file and version on the server side, the **[Upgrade]** button changes from grayed out to available. Click **[Upgrade]** to choose whether to upgrade.
New version description	When the server has the corresponding TXT file and version, the and version information in txt will be displayed under the new version description information.

7.3.3 Auto Provision

Web page: go to **[System]>>[Auto Provision]**.

Devices support SIP PnP, DHCP options, Static provision, TR069. If all of the 4 methods are enabled, the priority from high to low as below:

PNP>DHCP>TR069> Static Provisioning

Transferring protocol: FTP, TFTP, HTTP, HTTPS

Parameter	Description
Basic Settings	
CPE Serial Number	Display the device SN.
Authentication Name	Configure the user name of FTP server; TFTP protocol does not need to be configured; if you use FTP protocol to download, if you do not fill in here, the default user of FTP is anonymous.
Authentication Password	Configure the password corresponding to the FTP server user.
Configuration File Encryption Key	If the device configuration file is encrypted , user should add the encryption key here.

General Configuration File Encryption Key	If the common configuration file is encrypted, user should add the encryption key here.
Download Fail Check Times	The default value is 1. If the download of the configuration fails, it will be re-downloaded 1 time.
Save Auto Provision Information	Configure whether to save the automatic update information.
Download CommonConfig enabled	Whether phone will download the common configuration file.
Get the digest from the server before initiating the download	If the terminal matches the configuration file content through Digest verification, then whenever the configuration on the server is modified, or if the configuration on the terminal does not match the one on the server, the terminal will also initiate an update download.
DHCP Option Setting	
Custom Option Value	Configure DHCP options to support automatic deployment application parameters using three methods: DHCP custom option, DHCP option 66, and DHCP option 43. When obtaining automatic deployment application parameters via DHCP, users can choose any one of these methods, with the terminal defaulting to DHCP option disable.
Custom	Custom Option value is allowed from 128 to 254. The option value must be same as server define.
Enable DHCP Option 120	Use Option120 to get the SIP server address from DHCP server.
DHCPv6 Option Setting	
Custom Option Value	Configure DHCP options to support obtaining automatic deployment application parameters using three methods: DHCP custom option, DHCP option 66, and DHCP option 43. When obtaining automatic deployment application parameters via DHCP, users can choose any one of these methods, with the terminal defaulting to DHCP option 66.

Custom	Custom Option value is allowed from 128 to 254. The option value must be same as server define.
SIP Plug And Play	
Enable SIP PnP	Whether enable PnP or not. If PnP is enabled, phone will send a SIP SUBSCRIBE message with broadcast method. Any server can support the feature will respond and send a SIP Notify with URL to phone. Phone could get the configuration file with the URL.
Server Address	Configure the PnP server.
Server Port	Configure PnP port.
Transport Protocol	Configure PnP protocol.
Static Provisioning Server	
Server Address	Configure the address of the FTP server. The server address can be in IP format, such as 192.168.1.1, or in domain name format, such as ftp.domain.com. Additionally, the system supports the functionality of setting subdirectories for the server. For example, the system can configure the server address in the form of 192.168.1.1/ftp/Config/ or ftp.domain.com/ftp/config. This means that the accessed server address is either 192.168.1.1 or ftp.domain.com, and the file storage path is under /ftp/Config/. The subdirectory can have or not have a "/" at the end.
Configuration File Name	Configure the name of the configuration file to be upgraded. Typically, when using the automatic upgrade feature, this field is left blank. In this case, the device will use its own MAC address as the filename to retrieve the file from the server.
Protocol Type	Transferring protocol type ，supports FTP、TFTP、HTTP and HTTPS.

Update Mode	Provision Mode: 1. Disabled. 2. Update after reboot. 3. Update after interval.
Auto provision Now	
TR069	
Enable TR069	Enable TR069 after selection.
ACS Server Type	Select ACS server type. The terminal currently supports two types of ACS servers: telecom and regular.
ACS Server URL	ACS server address.
ACS User	ACS server authentication username.
ACS Password	ACS server authentication password.
Enable TR069 Warning Tone	If TR069 is enabled, there will be a prompt tone when connecting.
TLS Version	TLS Version(TLS 1.0, TLS 1.1, TLS 1.2)
STUN Server Address	Enter the STUN address.
STUN Enable	Enable the STUN.

8 Preference Settings

8.1 Time Settings

Users can set the time and date through both the device's web interface.

Web Interface for Setting Time/Date:

Users can set the device's time and date by going to the web page **[Phone Settings] >> [Time/Date].**

Parameters:

Parameter	Description
Network Time Server Settings	
Time Synchronized via SNTP	Enable time-sync through SNTP protocol.
Time Synchronized via DHCPv6	Enable time-sync through DHCPv6 protocol.
Time Synchronized via DHCP	Enable time-sync through DHCP protocol.
Primary Time Server	Set primary time server address.
Secondary Time Server	Set secondary time server address, when primary server is not reachable, the device will try to connect to secondary time server to get time synchronization.
Time zone	Select the time zone.
Resync Period	Time of re-synchronization with time server.
Date Format	
12-Hour Clock	Set the time display in 12-hour mode.
Date Format	Select the time/date display format.
Daylight Saving Time Settings	
Location	Choose your location, phone will set daylight saving time automatically based on the location.
DST Set Type	The daylight saving time rule based on specific dates or relative rule dates. In automatic mode, it is displayed as read-only.

Correction Value	The time adjustment applied when daylight saving time starts/ends.
Month Start	The DST start month.
Week Start	The DST start week.
Weekday Start	The DST start weekday.
Day Start	The DST start day.
Hour Start	The DST start hour.
Month End	The DST end month.
Week End	The DST end week.
Weekday End	The DST end weekday.
Day End	The DST end day.
Hour End	The DST end hour.
Manual Time Settings	You can set your time manually.

8.2 Audio Settings

8.2.1 Volume Setting

Users can adjust the device volume through both the web page .

Web interface for setting volume:

Users can set the device's volume through the web page **[Phone Settings] >> [Media Settings] >> [Media Settings]**. After setting, click **[Apply]** to save.

Volume parameters:

- Handset volume: Adjust the volume of the handset receiver.
- Speakerphone ring volume: Adjust the volume of the ringtone when using the hands-free mode.
- Handset/Hands-free signal tone volume: Adjust the volume of incoming and outgoing signal tones.
- Speakerphone volume: Set the volume for call audio.

8.2.2 Tone Setting

Users can set call alerts, call prompt tones, ringback tones, and reminder tones via the web page **[Phone Settings] >> [Features] >> [Tone Settings]**.

Parameters	Description
Play DTMF tones during outgoing calls	When users press the device's numeric keys during dialing, there will be DTMF tone prompts.
Play talking DTMF tone	When the user presses the device's numeric keys during a call, DTMF prompt tones will be heard. This feature is enabled by default.
Play startup tone	A tone when the device is powered on
Auto answer tone	The prompt tone for automatic answer is enabled by default when the user activates the auto-answer feature.
Ring Back Tone	Closed: Disables the ringback tone for calls. Default: Uses the default ringback tone. Supports custom ringback tones, which can be set by upgrading ringtone files under **[System] >> [Upgrade] >> [Ring Upgrade]**, and then selecting the custom option for the ringback tone.

8.2.3 Ring Setting

Web interface setting:

Users can set the device ringtone type through the web page **[Device Settings] >> [Media Settings] >> [Media Settings]**. After setting, press **[Apply]** to save.

8.2.4 Upload Ring

Users can upgrade ringtone files through the web page **[System] >> [Upgrade] >> [Ring Upgrade]**. Once upgraded, the new ringtones will be displayed in the ringtone list.

Ring file format:

- Supports WAV and tar.gz formats.
- The maximum size for a single file is 1M

9 Function Key Settings

9.1 DSS Key Settings

DSS Key Settings

Users can configure DSS Key through the web page.

Web Interface Configuration of DSS Key:

Access the device web page **[Function Key]>>[DSS Key]**, configure the DSSKEY buttons, select button type as Memory Key/Key Event/DTMF, assign the configuration to the corresponding device, and then update.

DSS Key Usage:

DSS keys support the following types:

- **Memory Keys**
  - Voice Mail: Display detailed information about the voicemail box for all SIP lines.
  - Speed Dial: Directly dial a preset number in standby mode.
  - Intercom: Call a set number using intercom mode. If the recipient has intercom auto-answer enabled, they can automatically answer intercom calls.
- **Key Event**
  - Voice Mail: Display detailed information about the voicemail box for all SIP lines.
  - Hold Call: Hold/resume the current call.
  - Intercom: Open the dial pad and call out using intercom mode.
  - Prefix: Configure a number prefix. When dialing, pressing this key automatically adds the prefix.
  - Deployment: This function depends on the Broadsoft server and is a method to record call information in call centers.
  - Handfree: Enter hands-free dialing or switch to the hands-free channelc
  - Answer Key: Answer incoming calls.
  - End: End the current call.

➢ Private Hold：This feature is related to the Broadsoft server. During a call, if you don't want someone else to pick up the call, you can use the Private Hold button.

- **DTMF**: During a call, pressing this key sends pre-configured DTMF tones sequentially to the remote party.
- **URL**: Access a pre-configured remote URL, can be set for XML phonebook addresses, etc.
- **MCAST Paging**: After configuring a multicast address and audio code, pressing this key sends out a multicast
- **Action URL**: Users can use specific URL to perform basic call operations for multicast listening. Configure the multicast address. When there is RTP, pressing the button can listen to the multicast.
- **XML Browser:** Place the configured XML file on an HTTP/HTTPS server. Pressing the button will retrieve the XML content and execute corresponding actions based on the content.
- **MCAST Listening**: On the function key page, configure the MCAST listening by setting the multicast address and port, then save the settings. While in standby mode, pressing the configured function key will allow you to listen to the multicast.

9.2 Speed Dial Settings(H602/H602W)

Speed dial settings

Users can configure speed dial (0-9 number keys) functionality through the webpage. After configuration, long-pressing a number key in standby mode will call the set number. The webpage keys 1-9 correspond to number keys 1-9, and 10 corresponds to the 0 key.

Configure speed dial keys on the web page:

Visit the device web page, navigate to **[Function Key] >> [Speed Dial List]**, configure the speed dial keys, select "Memory Key" as the key type, assign the configuration to the respective device, and then update.

Speed dial key usage

Speed dial keys support the following types:

- Memory Key
  - Speed Dial: In standby mode, long-pressing the key will directly speed dial the preset number.

10 Network Settings

10.1 Ethernet Connection

Users can set up wired networks through the device's web page and device menu. The device defaults to using IPv4 mode, and users can refer to the Network Mode to modify the network mode.

Setting up wired networks through the web interface:

Users can access the web page and go to **[Network] >> [Basic] >> [IPv4 Settings]** to configure the network type. Both static IP and DHCP configurations are supported.

Setting up wired networking through the device menu (H6W only):

Users can configure the network type via the device menu by going to **[System] >> [Network].** Both static IP and DHCP configurations are supported.

To set a static IP:

When the network is set to use a static IP, the device allows you to manually configure the IP address.

- IP address: Enter the IP address you wish to set.
- Subnet mask: Set the subnet mask.
- Default gateway: Used for network interconnection, fill in according to your needs.
- Primary DNS Server: The IP address of the primary DNS server.The default is 8.8.8.8, provided for free by Google.
- Secondary DNS Server: The IP address of the secondary DNS server.

10.2 Wireless Network

The device supports wireless internet connectivity. There are three ways to connect to Wi-Fi:

To connect through the web interface:

- Go to web，**[Network] >> [Wi-Fi Settings]**, enable Wi-Fi
- After adding the Wi-Fi information, click on **[Add]** to save it.

You can see the connected Wi-Fi network in the Wi-Fi Info List.

Connect through another device:

Method 1:

1. Enter **[Advanced Settings]** on the W611W, then go to **[Share Wi-Fi]** to enable the Wi-Fi sharing function and set the office network SSID and password. At this point, the W611W functions as an AP.

2. Power on the H601W/H602W devices.

3. After powering up, the W611W will push the office network SSID and password to the H601W/H602W, enabling them to connect to the office network. Once the Wi-Fi connection is successful, the power indicator will flash quickly 5 times.

Method 2:

1. The user creates a Wi-Fi network with the SSID "**WiFi-device-ssid**" and the password "**i<0%aY8+**".

2. After powering on, the H601W/H602W devices will automatically connect to this Wi-Fi.

3. Once the connection is successful, the power indicator will flash quickly 5 times. The Wi-Fi information of the H601W/H602W can be modified through automatic deployment to connect to the office network.

4. Wi-Fi module configuration file as shown:

```
<<VOIP CONFIG FILE>>Version:2.0000000000

<NET CONFIG MODULE>

--WIFI List--     :
Item1 WIFI Name        :Redmi K60
Item1 WIFI SSID        :Redmi K60
Item1 Secure Mode      :1
Item1 WIFI Encryption  :1
Item1 WIFI User Name   :
Item1 WIFI Password    :12345678

<<END OF FILE>>
```

10.3 Network Mode

There are three IP Mode options available: IPv4, IPv6, and IPv4 & IPv6.Users can set up wired network modes through the device's web page and device menu. Each network mode supports configuring the network type, either using static IP or DHCP.

Configure wired network modes through the web interface:

Users can access the web page and navigate to **[Network]>>[Basic]>>[Network Mode]** to set the network mode. Supported options include IPv4, IPv6, and IPv4 & IPv6.

10.4 Network Server

Users can configure network service types via the web page by navigating to **[Network] >> [Service Port]**.

Parameter	Description
Web Server Type	Changes take effect after a restart. You can choose the web login to be either HTTP or HTTPS.
Web Logon Timeout	Default is 15 minutes. After this time, the login session will automatically expire, requiring a new login.
Web Auto Login	After timeout, re-login to the web page does not require entering username and password; it will automatically log in.

HTTP Port	Default is 80. For enhanced system security, you can set a port other than 80, such as 8080. Web login would be: HTTP://IP:8080
HTTPS Port	Default is 443, used in the same way as the HTTP port.
RTP Port Range Start	The value range is from 1025 to 65535. The RTP port starts from the initial value set, and for each call, the values of the voice and video ports increase by 2.
RTP Port Quantity	The number of calls

10.5 VPN

Feature Description:

- Virtual Private Network (VPN) is a technology that allows devices to create a connection to a server and become part of the server's network. The network transmission of the indoor unit can be connected through the VPN server routing function.
- For some users, particularly corporate users, it may be necessary to establish a VPN connection before activating line registration. The device supports two VPN modes: Layer 2 Tunneling Protocol (L2TP) and OpenVPN.
- Users must enable (or disable) and configure the VPN by logging into the web page.

L2TP Setup Method:

- Visit the web page **>> [Network] >> [VPN]**, enable VPN mode, select "L2TP" as the type, and then fill in the L2TP server address, L2TP authentication username, and authentication password. Click "Apply" and the phone will attempt to connect to the L2TP server.
- When establishing a VPN connection, the VPN IP address will be displayed in the VPN status area. There may be delays in establishing the connection. Users need to refresh the page to update the status timely.
- Once the VPN configuration is successful, the indoor unit will automatically attempt

to connect to the VPN each time unless disabled. Sometimes, if the VPN connection is not established promptly, users can try restarting the device and check if the VPN has been successfully established after the restart.

> **Note:**
> The device only supports basic unencrypted authentication and data transmission. If users require data encryption, please use the OpenVPN feature instead.

To set up an OpenVPN connection, follow these steps:

- Obtain authentication and configuration files from your OpenVPN service provider. The files required include:
  - OpenVPN Configuration file: client.ovpn
  - CA Root Certification:ca.crt
  - Client Certification:client.crt
  - Client Key:client.key
- Upload the files listed above to the Manager's webpage under **[Network] >> [VPN]**, and select the OpenVPN files.
- Go to the device webpage, navigate to **[Network] >> [VPN]**, enable VPN mode, choose **"OpenVPN"** as the type, and submit the information to activate the OpenVPN feature.

Like the L2TP connection, the system will attempt to establish a connection upon every system restart until manually disabled by the user.

10.6 VLAN

VLAN (Virtual Local Area Network) technology allows a LAN to be divided into multiple logical LANs—VLANs, each VLAN being a broadcast domain where broadcast messages are confined within a single VLAN.

Support is provided for acquiring VLAN ID via LLDP, CDP, DHCP, and manual settings.

LLDP (Link Layer Discovery Protocol)

- Access the device web page **>> [Network] >> [Advanced] >> [Link Layer Discovery Protocol]**, configure LLDP settings:

- Enable LLDP: Activate the LLDP protocol function
- Packet Interval: Set the send interval for LLDP discovery packets
- Enable Learning Function: Enable LLDP to autonomously learn VLAN configuration settings

CDP (Cisco Discovery Protocol)

- Access the device web page **>> [Network] >> [Advanced] >> [Cisco Discovery Protocol]**, configure CDP settings:
  - Enable CDP: Activate the CDP protocol function
  - Packet Interval: Set the send interval for CDP discovery packets

DHCP VLAN

- Access the device web page **>> [Network] >> [Advanced] >> [DHCP VLAN Settings]**, configure DHCP VLAN parameters:
  - Selection of Option Value: Enable or disable acquiring the VLAN ID through DHCP OPTION.
  - DHCP Option VLAN: Set the OPTION value, 128-254, to obtain the VLAN value via DHCP.

Manual VLAN Setup

- WAN VLAN Settings: Access the device web page **>> [Network] >> [Advanced] >> [WAN VLAN Settings]**, manually configure the WAN VLAN ID:
  - Enable VLAN: Activate the manual setting of the WAN VLAN function.
  - WAN VLAN ID: Set the WAN VLAN ID.

802.1x Settings

- Access the device web page **>> [Network] >> [Advanced] >> [802.1x Settings]**,configure 802.1x parameters:
  - 802.1x Mode: Select the 802.1x authentication mode or disable authentication.
  - Identify: Set the authentication username.
  - Password: Set the authentication password
  - CA Certifiate: Upload the CA Certificate

- Device Certificate: Upload the Device Certificate

Certification File

- Access the device web page **>> [Network] >> [Advanced] >> [Certification File],** Users can customize and upload HTTPS certificate files.

11 Security Setting

Short-circuit input detection interface: Used for connecting devices such as switches, infrared probes, door sensors, and vibration sensors;

When the short-circuit input is triggered, it can send a text message to a specified server address, or make a call to a designated number, and play an alarm ringtone locally. This facilitates quick response by management personnel.

Users can modify the configuration parameters related to the input ports through the web interface by navigating to **[Security Settings] >> [Security Settings].**

Parameters	Description
Basic Settings	
Ringtone Duration	When the input interface triggers an alarm, if the alarm sound is enabled, specify the duration of the alarm sound.
Input & Tamper Server Address	Configure the remote response server address, including the remote response server address and the triggered alarm server address. When the input interface or tamper is triggered, it will send a short message to the server. The server address supports IP:PORT or SIP number.
Information	The alarm information to be sent: ✓ Parameters can be replaced with actual values. The supported parameters include: ✓ Model, replace with the actual model name ✓ Active_user, replace with the actual SIP username ✓ Mac, replace with the MAC address of the device ✓ IP, replace with the IP address of the device ✓ Trigger, replace with the triggered interface, such as input1, input2, etc. ✓ Trigger Name, replace with the triggered name.
Input settings	

Parameters	Description
Input 1	Enable or disable Input 1
Triggered by	When choosing the low level trigger (closed trigger), detect the input port (low level) closed trigger.
	When choosing the high level trigger (disconnect trigger), detect the input port (high level) disconnected trigger.
Input Duration	Set the Input change duration time, the default is 0 seconds.
Triggered Behavior	Enable or disable the input port from sending messages to the server.
DSSKEY	When set to DSSKEY1 or DSSKEY2, triggering the DSSKEY will initiate a call. The default is None.
Triggered Ringtone	Supports ringtone selection: None, no ringtone triggered.

12 Security

12.1 Web Password

Via the user interface to modify the password:

Users can customize and change the web login password by clicking on the option in the upper-right corner 

and then selecting **[Change Web Authentication Password]** after logging into the web page.

Modify the web page password parameter settings:

- Old Password: Enter the web page login password.
- New Password: Enter the new login password you wish to set.
- Confirm Password: Please enter the new login password again for confirmation.

After the password is modified, the system will automatically log out, and you will need to enter the new password to log in again.

12.2 Web Filter

Users can configure to allow only machines from a specific IP subnet to access and manage the configuration of the device.

Navigate to the web page **[Security] >> [Web Filter],** add or delete allowed IP subnets. Configure the starting and ending IP addresses within the specified range, then click **[Add]** to apply the changes. You can set a large subnet or add multiple subnets. When deleting, choose the starting IP of the subnet you want to remove from the dropdown menu, and then click **[Delete]** to apply the changes.

Enable Web Filtering: Configure to enable/disable web access filtering. Click the **[Apply]** button to apply the changes.

Note：

If accessing the device from a machine within the same subnet, do not configure the web

filtering subnet to be outside of your own subnet; otherwise, you won't be able to log in to the webpage.

12.3 Mutual Authentication

The device supports mutual authentication using HTTPS and SIP TLS.

Certificate Management

- Device Certificate: Access the web page **[Security] >> [Device Certificates]** to set the device certificate parameters:
  - ➢ Device Certificates: Choose the device certificate to be used for authentication, which can be either the default certificate built into the device or a custom certificate uploaded by the user.
  - ➢ Import Certificates: Upload a custom device certificate.
  - ➢ Certificate File: Displays the list of uploaded custom device certificates. Only one custom device certificate can be uploaded. If no custom certificate is uploaded, the certificate list will be empty.
- Trusted Certificates: Access the web page **[Security] >> [Trusted Certificates]** to set the trusted certificates parameters:
  - ➢ Permission Certificate: Used to decide whether to enable server certificate verification.
  - ➢ Common Name Validation: Option to enable or disable common name validation.
  - ➢ Certificate Module: Select the certificate module to be used, with the following options:
    - ✧ All Certificates: Trusts all certificate modules, including both the custom uploaded trusted certificate list and the built-in trusted list in the device.
    - ✧ Default Certificates: Trusts the built-in trusted certificate list of the device.
    - ✧ Custom Certificates: Trusts the custom uploaded trusted certificate list.
  - ➢ Import Certificates: Used to import trusted certificates from the server side.
  - ➢ Certificate List: Displays the list of custom uploaded server trusted certificates.When no custom certificate is uploaded, the certificate list will display as

empty.

Mutual Authentication Explanation

- Upload the device certificate used to the server's trusted certificate list, ensuring that the server's trusted certificate list includes the device's certificate. Please confirm with the server administrator.
- Access the web page **[Security] >> [Trusted Certificates] >> [Import Certificates]** to upload the server's device certificate to the device's trusted certificate list and select the trusted certificate module to use.

12.4 Network Firewall

Setting the Network Firewall

- Access the device's web page >> **[Security] >> [Firewall]**, where you can set whether to enable the inbound and outbound firewall. You can also define rules for the inbound and outbound traffic through the firewall. These settings help prevent malicious network access and restrict internal users from accessing certain external network resources, thereby enhancing security.

Feature Description

- The firewall rule setting is a simple firewall module that supports two types of rules: inbound rules and outbound rules. Each rule is assigned a sequence number, with a maximum of 10 rules allowed for each type.
- Once the parameters are set, clicking **[Add]** will add a new item to the firewall's outbound rules.
- To delete an item, select the desired list and click **[Delete]** to remove the selected list.

Parameters:

Parameter	Description
Enable Input Rules	Indicates that the input rule application is enabled.
Enable Output Rules	Indicates that the output rule application is enabled.
Input/Output	To select whether the currently added rule is an input or output

	rule.
Deny/Permit	To select whether the current rule configuration is disabled or allowed.
Protocol	There are four types of filtering protocols: TCP | UDP | ICMP.
Filter port range	The range of filtered ports
Src Address	Source address can be host address, network address, or all addresses 0.0.0.0; It can also be a network address similar to *.*.*.0, such as: 192.168.1.0.
Dst Address	The destination address can be either the specific IP address or the full address 0.0.0.0; It can also be a network address similar to *.*.*.0, such as: 192.168.1.0.
Src Mask	Is the source address mask. When configured as 255.255.255.255, it means that the host is specific. When set as 255.255.255.0, it means that a network segment is filtered.
Dst Mask	Is the destination address mask. When configured as 255.255.255.255, it means the specific host. When set as 255.255.255.0, it means that a network segment is filtered.

13 Trouble Shooting

When the device is not in normal use, the user can try the following methods to restore normal operation of the device or collect relevant information and send a problem report to Fanvil technical support mailbox.

13.1 Get Device System Information

Users can obtain information through the device web page **[System]>>[Information]** or the device **[Menu] >> [System] >> [Phone]** options.The following information will be provided:

1. Device information (model, software and hardware version).
2. Account information.
3. Internet Information.

13.2 Reboot Device

Users can restart the device via the web interface or device menu.

Web Interface Restart:

Click on **[System] >> [Reboot Device]** and press **[OK].**

Power Cycle Restart:

Simply unplug the device and plug it back in to restart.

13.3 Device Factory Reset

Users can restore the device to default settings through the web interface or the device menu.

Web Interface Restore:

Click on **[System] >> [Configurations] >> [Reset Device] >> [Reset]** button and press **[OK]**.

13.4 Network Packets Capture

In order to obtain the data packet of the device, the user needs to log in to the web page of the device, open the web page **[System] >> [Tools] >> [LAN Packet Capture]**, and click the **[Start]** option in the "Network Packets Capture".If you are using a Wi-Fi network, click the **[Start]** option in **[WLAN Packet Capture]**. A message will pop up asking the user to save the captured file. At this time, the user can perform related operations, such as starting/deactivating the line or making a call, and clicking the [**Stop**] button on the web page after completion. Network packets during the device are saved in a file. Users can analyze the packet or send it to the Technical Support mailbox.

13.5 Get Device Log

When encountering abnormal issues, log information can be helpful. The device supports exporting system logs and Wi-Fi logs.

Obtain system log:

To obtain the device's log information, users can log into the device's web page, navigate to **[System] >> [Tools] >> [Syslog]:**

- Set the system log to diagnostic mode.
- Enable log export and submit the changes.

Follow the steps where the issue occurs until it appears, then go to **[System] >> [Tools] >> [Export Log]** and click on export logs to save the logs locally for analysis or send them to technical staff for problem resolution.

Obtain Wi-Fi Log:

To obtain the device's Wi-Fi log information, users can log into the device's webpage, navigate to **[System] >> [Tools] >> [WLAN Logs]**

- Enable WLAN logging and submit the changes.

Follow the steps where the issue occurs until it manifests, then go to **[System] >> [Tools] >> [WLAN Logs]** and click on export logs to save the logs locally for analysis or send them to technical staff for problem resolution.

13.6 Common Trouble Cases

Trouble Case	Solution
Device could not boot up	1. The device is powered by a power adapter. Please use a compliant power adapter and check if the device is connected to power. 2. The device is powered by PoE. Please use a compliant PoE switch.
Device could not register to a service provider	1. Please check if the device is connected to the network. 2. Verify if the device has an IP address. Check the system information; if the IP address is 0.0.0.0, it indicates that the device has not obtained an IP address. Ensure that the network configuration is correct. 3. If the network connection is fine, recheck your cable configuration. If all configurations are correct, contact your service provider for support, or follow the instructions in 13.4 Network Packets Capture to obtain network packets for analysis. Send them to the support email to help diagnose the issue.

14 Appendix Table

14.1 Appendix I - Function Icon

Icon	Description
	Hands-free calling
	Increase volume
	Decrease volume
	DND
	Front desk service
	Room service
	Concierge
	Assistant Manager
	Message
	Housekeeping