

COPYRIGHT AND TRADEMARKS

SAFETY AND REGULATORY INFORMATION

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation

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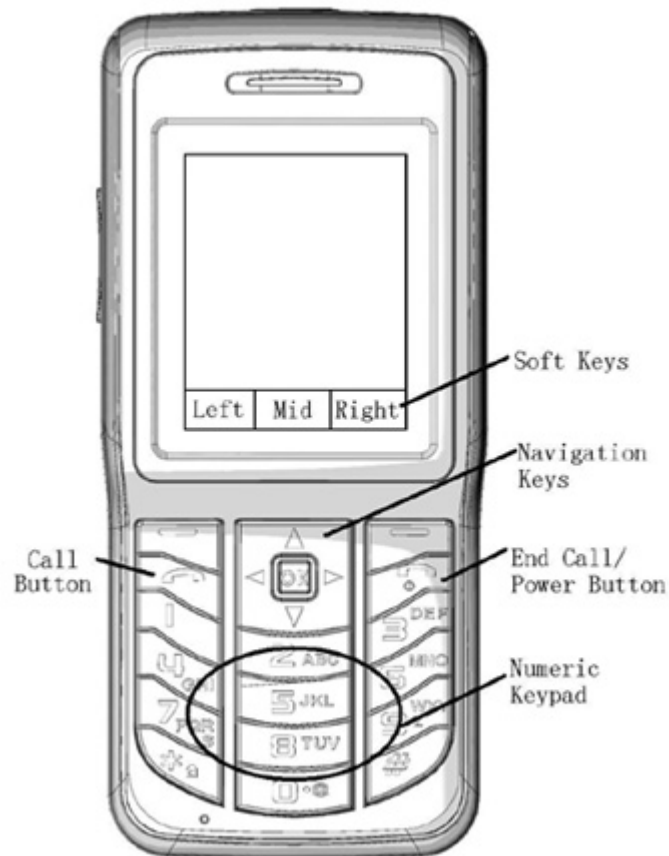
GETTING STARTED

1. Package Contents

- § WH2988 Wireless IP Phone
- § Battery
- § AC Adapter
- § User Manual

2. Phone Description

2.1. The Front Panel

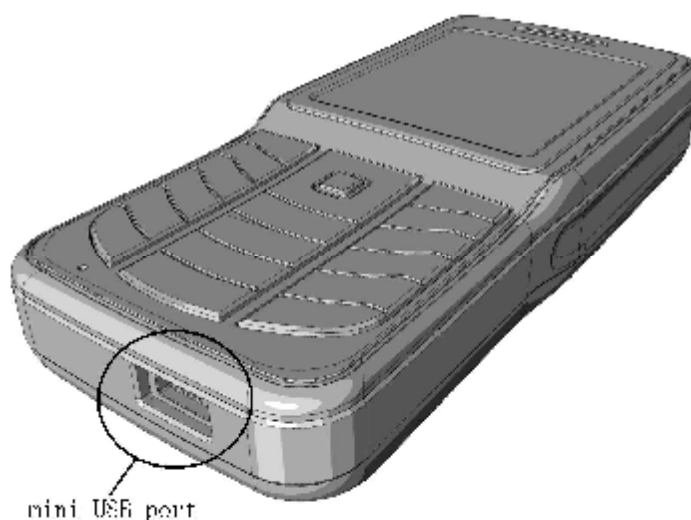


The Wireless IP Phone's buttons and each of their functions are described in the table below:

Button	Name	Function
	Soft Keys	Use Soft Keys to select menu items displayed

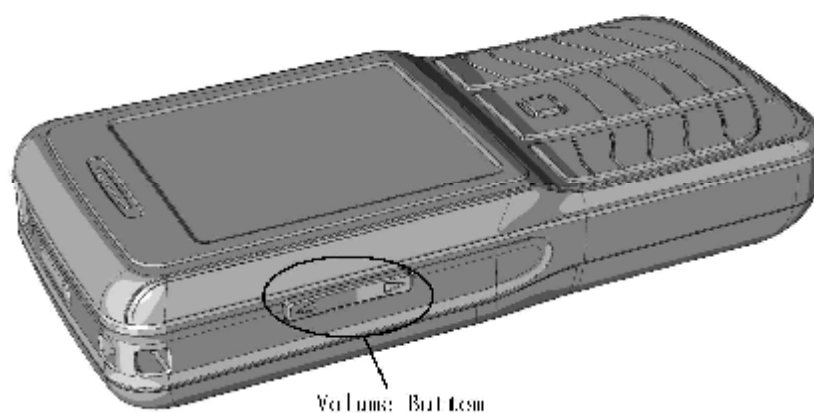
		right above
	Navigation	Use ▲ ▼ to scroll through menu and setting items. You can also use the center button to select a highlighted menu or setting item.
	Place/Receive Call	Press Place/Receive Call button to make outgoing calls or accept incoming calls.
	End Call/ Power	<p>§ Press End Call button to finish a call or reject a new call.</p> <p>§ Press and hold Power button for 3 sec to turn on/off the phone.</p> <p>§ It is also a shortcut to the home screen.</p>
	Numeric Keypad	Press the keys on the Numeric Keypad to enter letters and numbers. Refer to INPUT METHOD for detail information.

2.2. The Bottom Panel



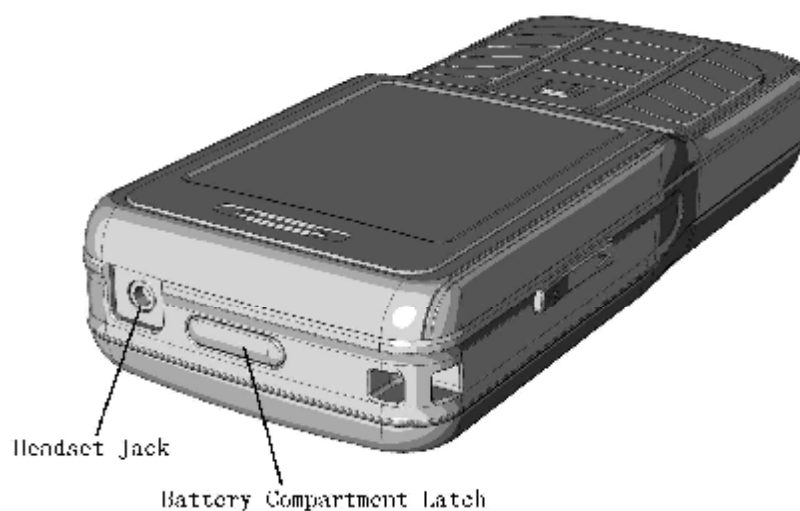
The mini-USB port is located on the bottom panel of the Wireless IP Phone. Use the mini-USB port to connect the included AC adapter to charge the battery.

2.3. The Side Panel



- § The volume button is located on the side panel of the Wireless IP Phone. Use this button to adjust ring tone volume and talk volume.

2.4. The Top Panel

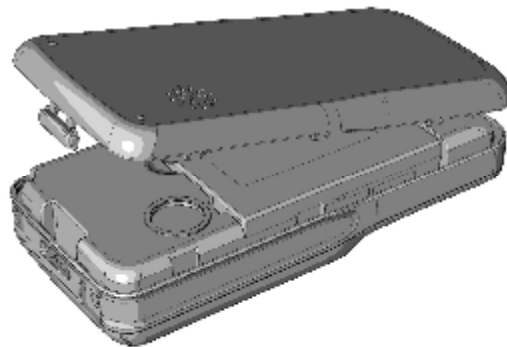
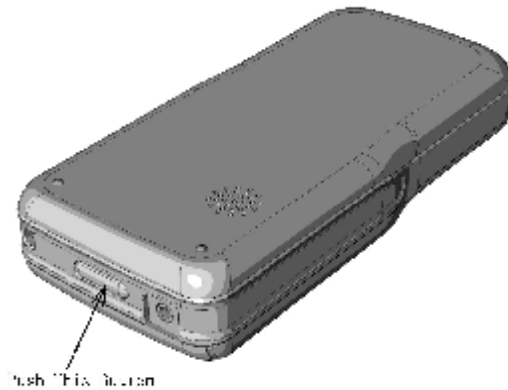


- § The Headset Jack is located on the top panel of the Wireless IP Phone. Use it to connect a headset for hands-free operation.
- § The latch to release the battery compartment cover is also located on the top panel. Refer to “Install and Using the Wireless IP Phone” for detail information.

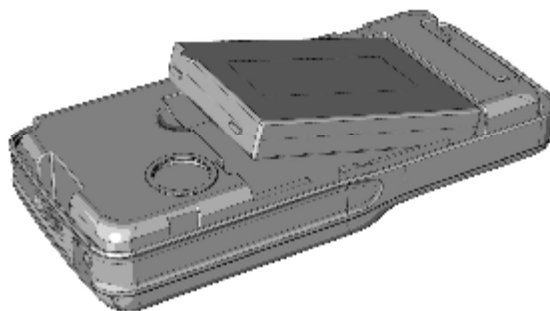
3. Install and Using the Wireless IP Phone

3.1. Inserting and Charging Battery

- § Removing the battery compartment cover by releasing the latch on the top panel.



- § Insert the battery with the metal contacts facing the contacts at the side of the battery compartment.



- § Align the bottom part of the cover with the bottom of the phone; gently push in the latch until it clicks into place.
- § Connect the connector end of the AC adapter to the mini-USB port of the Wireless IP Phone.
- § Plug the other end of the adapter into a standard electrical outlet.

3.2. Power On the Wireless IP Phone

- § Press the power button to turn on the Wireless IP Phone.

3.3. Display Indicators

- § A charging indicator can be seen on the LCD screen.

3.4. Setup the Wireless IP Phone

Before you begin, make sure you have set up an internet connection. Also have the account information provided by your internet phone service provider ready.

Set up SIP registration

- a. Press **Menu** soft key.
- b. Press **▲** or **▼** button to highlight Network. Press **Select**.
- c. Press **▲** or **▼** button to highlight SIP Profile. Press **Select**.
- d. Press Option to enter the default SIP Profile.
- e. Press **▲** or **▼** button to highlight each setting your service provider requires you to change, then press **Select** soft key to change the setting.
*(When you are finished changing a setting, press the **Set** soft key to save your changes)*
- f. When you are finished making all changes, press the on-hook key to return to the main screen.

Set up AP connection


- a. Press the right soft key **Survey**.
- b. Press **▲** or **▼** button to highlight the AP you're connecting to. Press left soft key **Save**.
- c. Press **▲** or **▼** button to highlight the AP profile location (e.g. Default) and press center soft key **Set**.
- d. Press **▲** or **▼** button to highlight **Profile Name**, press **Select** soft key, and rename the profile. (Optional)
- e. Press **▲** or **▼** button to highlight **Security**, select the according security scheme.

- f. Press ▲ or ▼ button to highlight **Key**, enter the security key.
(Optional)
- g. Press ▲ or ▼ button to highlight **Activate**, and press **Select** soft key.
- h. Press **OK** soft key to activate this AP profile.

By this time, a signal strength icon and a *SIP* icon should be seen on the LCD screen.

BASIC OPERATIONS


1. Switch the Phone On/Off

- § To switch the phone on or off, press and hold the power key  for at least 3 seconds. The phone will display the power on/off animation.
- § If the power-on code function is active, after switching on the phone, enter the security code (with each input displayed as *) and press the confirmation key (Ok). If the security code is correct, the power-on animation will be displayed; otherwise Code Error will be displayed.

2. Make a Call

Note: Prior to making or receiving calls, the phone must be connected to a wireless Access Point (AP) and registered with the SIP network.

2.1. Use the Keypad

- a. You can enter phone number () or SIP URL at the entering line.
- b. To delete a character to the left of the cursor, press Clear soft button
- c. Press  to make a phone call.

2.2. Using the Phonebook

You can search the **Phonebook** by name to get the phone number/SIP URL and make a call. To enter **Phonebook Menu**,

- a. In idle mode, press ▲ button
- Or**
- b. In idle mode, press Menu soft button,
 - c. Press ▲ or ▼ button to highlight Phonebook Menu, and then press OK

2.3. Using the Call History

You can search the **Call History** by pressing ▲ or ▼ to get the phone number/SIP URL and make a call. To enter **Call History Menu**,

- a. In idle mode, press ▼ button


Or

- b. In idle mode, press **Menu** soft button,
- c. Press ▲ or ▼ button to highlight **Call History Menu**, and then press **OK**

2.4. Using Speed Dial


If you have assigned a phone number to one of the speed dial keys

 ~  , you can quickly call that phone number:



- a. In standby mode, press and hold the corresponding speed dial key to automatically display the phone number.
- b. Press  to call the number.

For details of speed dial settings, refer to Speed Dial Menu.

2.5. Cancel the call attempt

You can press  to end the call or to cancel.

3. Answer or Reject an Incoming Call

When there is an incoming call, you can press  to answer the call. Or you can press  to reject the call.

4. Operations During a Call

Refer to the table below for a list of options available during a call:

Option	Description
Mute	Mute microphone
Un-mute	Return to normal from mute status
End/Hangup	End the current call
Hold	Place the current call on hold
Unhold	Retrieve the current call from hold status
Accept	Answer another incoming call (call waiting), after answer the new incoming, the original call will be put on hold.

Reject	Reject another incoming call; the calling party receives a busy signal
Flash	Switch between the active call and the call on hold
Adjust Volume	Adjust listening volume
Phone book	View the phone book
Call history	View the call history

4.1. Mute / Unmute

During the call you can mute/unmute microphone volume.

- a. Press the **Mute** soft button, the microphone volume will be set to mute. The **Mute** soft button becomes **Unmute**.
- b. To resume the volume, press the **Unmute** soft button. The **Unmute** soft button becomes **Mute**.

4.2. End Call

To end an ongoing call or the held call, press the **End** button or Hangup soft button.

4.3. Hold /Unhold

During the call, you can place it temporarily on hold. And, you can retrieve or end the held call.

- a. Press the Hold soft button to place the call on hold. The Hold soft button becomes Unhold.
- b. Press the Unhold soft button to take the call off hold. The Unhold soft button becomes Hold.
- c. Press the End key to end the held call.

4.4. Answer/Reject

When another call comes in during a call, the earpiece will sound a waiting tone. You can answer or reject the incoming third party call (call waiting).

- a. To reject the incoming third party call and continue the current call, press the End button.
- b. To hold the current call and answer the incoming third party call, press the Talk button.

After you answer the new call, the original call will be put on hold.

4.5. Swap (Switch Calls)

Press the **Flash** soft button to switch between the current call and the held call.

4.6. Adjust Volume

- a. During a call, press **Volume Up/Down** side button to access the listening volume adjustment screen.
- b. There are five volume levels. Press **Volume Up** to increase or **Volume Down** to decrease the volume. If the volume is at the highest level, the volume level will not change when **Volume Up** is pressed; if the volume is at the lowest level, the volume level will not change when **Volume Down** is pressed.
- c. After completing the volume selection, wait for one second to return to the call timer mode. The phone will save the adjusted volume level.

4.7. View Phone Book

During the call you can view **Phone Book** by pressing **▲** button.

4.8. View Call History

During the call, you can view **Call History** by pressing **▼** button.

MENU

1. Phone Book

The Phonebook can store and display up to 200 contacts. Refer to the table below for a list of options available in the Phonebook:

Option	Description
Search	Allows you to search for a contact by name.
View Details	Allows you to view the detail information of currently selected contact.

Edit	Allows you to edit the currently selected contact.
Add	Allows you to add a new contact.
Delete	Allows you to delete the currently selected contact.
Delete All	Allows you to delete all of contacts.
Speed Dial	Allows you to assign up to eight phone numbers you frequently call to the number keys(2-9) on the phone
Make Call	Allows you to call the contact.
Send Message	Allows you to send message to the contact.

1.1. View the Phone Book Menu

- a. At the idle screen, press the **Contact** soft button.
- Or**
- b. In idle mode, press Menu soft button,
 - c. Press **▲** or **▼** button to highlight **Phone Book** Menu, and then press OK

1.2. Search/ View Details

Search for a contact in the Phone Book.

- a. In Phone Book menu, press **▲** or **▼** to highlight Search sub-menu. Then, press **Select** button.
- Or**
- b. In Idle mode, press **▲**
 - c. Press **▲** or **▼** to display the contacts of your phone book
 - d. Press the key which corresponds to the first letter of the name for which you are performing a search.
 - e. Press **▲** or **▼** to scroll through names in the list
 - f. Press **Select** to view the details of the selected name.

1.3. Edit

- a. Search for the entry as described in the previous section and press **Select** to view the details of selected name.
- b. Press **Options** to enter sub-menu.
- c. Scroll to **Edit Name**, **Edit Number** and press **Select**
- d. Edit the name and number to your preference and press **OK**

1.4. Delete

- a. Search for the selected name as described in the previous section
 - b. Press **Delete**, then press **OK**
- Or**
- c. Search for the entry as described in the previous section and press **Select** to view the details of selected name.
 - d. Press **Options** to enter sub-menu
 - e. Scroll to **Delete**, then press **Select**, and then press **OK**

1.5. Delete All

To delete the entire contents of your phone book, in **Phone Book** menu, scroll to **Delete All**, then press **Select**, and then press **OK**.

1.6. Add

To add new contact to your phone book,

- a. In **Phone Book** menu, scroll to **Add**, then press **Select**
- b. Key in contact name then press **OK**
- c. Key in contact number then press **OK**

1.7. Speed Dials

You can associate any contact in your phone book with the number keys (2-9) and then dial those entries by pressing and holding the assigned key.

- a. In **Phone Book** menu, scroll to **Speed Dials**, then press **Select**
- b. Scroll to desired number key and press **Assign**
- c. Scroll to the desired contact and press **Assign**

1.8. Make Call

Allow you to call the contact.

- a. Search for the entry as described in the previous section and press **Talk**

1.9. Send Message

- a. Search for the entry as described in the previous section and press **Select** to view the details of selected name.

- b. Press **Options** to enter sub-menu
- c. Scroll to **Send Message**, then press **Select**
- d. Create message, and press **Send** button.

2. Message

The **Message** menu allows you to read, edit, save and send text message. Refer to the table below for a list of options available in the **Message** menu.

Option	Description
List	Allow you to view a list of message (Inbox/Sent/Draft)
View	Allows you to view the detail of a selected message (Inbox/Sent/Draft)
Edit (up to 140 alphanumeric characters)	Allows you to edit message (New/Inbox/Draft)
New	Allows you to create new message.
Inbox (100 messages)	Allows you to access received message.
Sent (100 messages)	Allows you to access sent message.
Draft (10 messages)	Allows you to access draft
Save	Allows you to save message to draft (New)
Send	Allows you send message (New/Draft)
Reply	Allows you to reply message from inbox (Inbox)
Forward	Allows you to forward the selected message (Inbox/Sent)
Delete	Allows you to delete the selected message (Inbox/Sent/Draft)

2.1. List

Displays a list of messages in Inbox, Sent, or Draft box

2.2. View

Allows you to view details of a selected message

- a. In **Inbox/Sent/Draft** menu, scroll to desired message.
- b. Press **Select**

2.3. Edit

Allows you to edit:

- a. New message

- b. Reply message
- c. Draft message

2.4. New

You can create a message up to 140 alphanumeric characters long.

- a. In **Message** menu, press **New**, then press **Select** button.
- b. Create the new message.
- c. Press **Send**, enter the phone number you want to send the message to, and press **Send** again.

Or

- d. Press **Save** to save the message to the Draft box.

2.5. Inbox

You can have up to 100 records of message kept in the Inbox.

- a. In Message menu, scroll to Inbox and press **Select**.
- b. Scroll to desired number/name and press **Select** to view the details and the message

2.6. Sent

You can have up to 100 records of message kept in the Sent box.

- a. In Message menu, scroll to Sent and press **Select**.
- b. Scroll to desired number/name and press **Select** to view the details and the message.
- c. Press **Option** to Delete or Forward the message.

2.7. Draft

You can have up to 10 records of message saved in the Draft box.

- a. In Message menu, scroll to Draft and press **Select**.
- b. Scroll to desired number/name and press **Select** to view the details and the message.
- c. Press **Delete** to delete the message.

Or

- d. Press **Send**, enter the phone number you want to send the message to, then press Send again.

2.8. Reply

- a. In Message menu, scroll to Inbox and press **Select**.
- b. Scroll to desired number/name and press **Select** to view the details and the message

- c. Press **Option**
- d. Scroll to **Reply**, press **Select**.
- e. Enter message, and press **Send**.

2.9. Forward

- a. In Message menu, scroll to Inbox or Sent and press **Select**.
- b. Scroll to desired number/name and press **Select** to view the details and the message
- c. Press **Option**
- d. Scroll to **Forward**, press **Select**.
- e. Enter message, and press **Send**.
- f. Enter the phone number you want to forward the message to, then press **Send** again.

2.10. Delete

- a. In Message menu, scroll to Inbox and press **Select**.
 - b. Scroll to desired number/name and press **Option**.
 - c. Scroll to **Delete**, press **Select**.
 - d. Press **OK**.
- Or**
- e. In Message menu, scroll to Inbox and press **Select**.
 - f. Scroll to desired number/name and press **Select** to view the details and the message
 - g. Press **Option**
 - h. Choose **Delete**, press **Select**.
 - i. Press **OK**.

3. Call History

The call history can store and list up to 30 calls you've recently missed, dialed, and received. When the number of calls exceeds the maximum, the most recent call replaces the oldest. Refer to the table below for a list of options available in the Call History:

Option	Description
List	Displays a list of calls you've recently missed, dialed or received.
View Details	Allows you to view the detail information of currently selected call log

Delete	Allows you to delete currently selected call log
Delete All	Allows you to delete all of call logs
Make Call	Allows you to call the number
Send Message	Allows you to send message according to currently select.
Save to Phone Book	Allows you to save the currently selected call log to phone book.

3.1. List

Displays a list of calls you've recently missed, dialed or received. The different call log types are mixed together and sorted by the time of the call. You can identify call type by call type icon showed ahead of every call log.

3.2. View Details

Allow you to view details of selected call log.

- c. In **Call History** menu, scroll to desired call log.
- d. Press **Select**

3.3. Delete

You can delete call log from memory in two ways:

- a. In **Call History** menu, press ▲ or ▼ to scroll to desired call log.
 - b. Press **Option** then press **Delete**
- Or**
- c. In **Call History** menu, press ▲ or ▼ to scroll to desired call log.
 - d. Press **Select** then press **Options** and then press **Delete**

3.4. Delete All

Allow you to delete all of call logs.

- a. In **Call History** menu, press ▲ or ▼ to scroll to desired call log.
- b. Press **Option** then press **Delete All**

3.5. Make Call

Allow you to call the selected number.

- a. In **Call History** menu, press ▲ or ▼ to scroll to desired call log.

- b. Press **Talk** key to make call.

3.6. Send Message

Allow you to send message to the selected number.

- a. In **Call History** menu, press ▲ or ▼ to scroll to desired call log.
- b. Press **Select** then press **Option**, and then Press **Send Message**
- c. Edit message then press **Send**.

3.7. Save to Phone Book

Allow you to save the selected call log to phone book.

- a. In **Call History** menu, press ▲ or ▼ to scroll to desired call log.
- b. Press **Select** then press **Option** and then press **Add to Contact**

4. Phone Settings

Use the **Phone Settings** menu to make changes to select regional settings, set the date and time, and personalize your phone. Refer to the sections below for the options available in the **Phone Settings** menu.

Option	Description
Call Forward	Allows you to make changes to call forwarding settings.
Ring Tone Profile	Allows you to change your ring tone profiles
Talk Volume	Allows you to change your talk volume
Time/Date	Allows you to set your phone's Time/Date
Key Lock	Allows you to turn on/off key lock function
Display	Allows you to make changes to display settings
Security	
Alarm	Allows you to make changes to alarm settings

4.1. Call Forward

The Call Forward menu allows you to change all call forward settings on the IP Phone. Refer to the table below for a list of options available in the Call Settings menu.

Option	Description
Forward Number	Allows you to enter a number to forward calls to.

Forward All	Allows you to forward all calls.
No Answer	Allows you to forward missed calls.
Busy	Allows you to forward calls when your phone is busy.
Cancel All	Allows you to cancel all call forwarding options.

4.2. Ring Tone Profile

The Wireless IP phone can store up to 4 ring tone profiles for different operation environment. You can change ring/tone settings on the profiles. Refer to the table below for a list of options available in the Ring Tone Profile menu.

Option	Description
Ring Mode	Allows you to set the Wireless IP Phone's ring mode to Ringing, Vibrate, Vibrate then Ring, Silence
Ring Melody	Allows you to set the Wireless IP Phone's ring tone.
Ring Volume	Allows you to adjust the Wireless IP Phone's ringer volume.
Key Tone	Allows you to turn on/off the Wireless IP Phone's key tone
Message Alert	Allows you to turn on/off the Wireless IP Phone's message alert
Activate	Allows you to activate the ring tone profile

4.3. Time/Date

The **Time/Date** menu allows you to change your IP phone's time & date. Refer to the table below for a list of options available in the **Time/Date** menu.

Option	Description
Set Time	Allows you to set time for the Wireless IP Phone
Time Format	Allows you to select a time format (12-hour or 24-hour)
Set Date	Allows you to set Date for the Wireless IP Phone
Date Format	Allows you to select a date format (DD MM YYYY, MM DD YYYY, YYYY MM DD)

4.4. Key Lock

The **Key Lock** menu allows you to lock the Wireless IP Phone's keypad. To unlock the keypad, press the **Left Soft Key** then press the * (Star) key

4.5. Display

The Display menu allows you to customize the Wireless IP Phone's display. Refer to the table below for a list of options available in the Display menu.

Option	Description
LCD Off Time	Allows you to change the amount of time it takes for the IP Phone to turn off its LCD when the phone is not in use.
Brightness	Allows you to change the brightness of the LCD screen.
Wallpaper	Allows you to change the picture displayed on the home screen.

4.6. Security

The Security feature allows you to set the security and password for the booting of the Wireless IP Phone.

Option	Description
Password Request	Allows you to turn on/off the security setting
Set Password	Allows you to reset the password

4.7. Alarm

The **Alarm Clock** allows you to set an alarm to go off at a specified time. Refer to the table below for a list of options available in the **Alarm Clock** menu.

Option	Description
Alarm Time	Allows you to set the time you want the IP phone to sounds an alert
Tone	Allows you to set the alarm tone.

5. Site Survey

Use the Site Survey menu to perform a site survey of all the wireless access points in range of the Wireless IP Phone. Refer to the sections below for the options available in the Site Survey menu.

Option	Description
Save	Allows you to save the wireless access point to your AP Profile list

	and activate/join the AP
Select	Allows you to view the selected wireless access point's network statistics, and save to/activate the AP profile

6. Network

The Network menu allows you to make changes to your SIP account profiles, AP profiles, IP setting, and display your network statistics. Refer to the sections below for the options available in the Network menu.

6.1. SIP Profile

The SIP Profile menu allows you to assign up to four SIP accounts to your IP Phone. To edit a SIP account, highlight the account you would like to edit, press the **Select** Soft Key to edit the account. Refer to table below for a list of options available in the SIP Profile menu:

Option	Description
Activate	Allows you to activate currently selected SIP profile
User Name	Allows you to enter your user name.
Registrar	Allows you to enter your registrar's IP address, port number and SIP domain
Authenticate	Allows you to enter your Internet phone service account's authorization ID and password.
Subscription Time	Allows you to change the amount of time the IP Phone waits between subscription attempts with the SIP server.
Registration Time	Allows you to change the amount of time the IP Phone waits between registration attempts with the SIP server.
Audio Setting	Allows you to select Auto, G.711a, G.729a, or G.711u as the codec the phone uses for encoding and decoding audio.
DTMF signaling	Allows you to select from the following DTMF signaling modes: None, RFC2833, In-band
Proxy Server	Allow you to set SIP proxy server
NAT Traversal	Allows you to select from the following NAT Traversal options:
Reset to Default	Allows you to reset the SIP profile settings to default
Rename	Allows you to make change of SIP profile name

6.2. AP Profile

The AP Profile menu allows you to assign up to four wireless access points for your IP Phone to connect to. To edit a profile, highlight the AP profile you would like to edit, then press the **Select** Soft Key. Refer to table below for a list of options available in the *Profile*

Option	Description
Edit	Allows you to edit the current network profile.
SSID	Allows you to enter your wireless network's ESSID name.
Security Mode	Allows you to select wireless security settings to match your network.
Security Key	Allows you to edit the security key
Activate	Allows you to activate the selected AP profile as current profile

6.3. IP Setting

Option	Description
DHCP On/Off	Allows you turn on/off DHCP
IP Address	Allows you to view/enter(DHCP off only) IP address
Subnet Mask	Allows you to view/enter(DHCP off only) IP mask
Default Gateway	Allows you to view/enter(DHCP off only) default gateway address
DNS	Allows you to view/enter(DHCP off only) DNS address

6.4. Information

Option	Description
MAC ID	Allows you view your IP phone's MAC ID
SSID	Allows you view AP's SSID

7. Utilities

Utilities provides following two functions:

7.1. Network Ping

User can enter an IP address to perform network ping function.

7.2. System Information

Provides following information:

- § Serial Number
- § Software Version

INPUT METHOD

Use # sign to switch between input modes:

- § “a” indicates the character mode
- § “1” indicates the number mode
- § “~” indicates special characters mode:
 - Key_1: " ' [] < > () { }
 - Key_*: * = + - / , : ;
 - Key_0: @ . <space>
 - Key_#: # \$ % & \ ^ _ ~ ` |
- § “ip” indicates IP address mode.

Press a number key (1-9) repeatedly until the desired character/number appears.

If the next letter is located on the same key as the present one, wait until the cursor appears, and enter the letter.

SHORTCUT KEYS

Shortcut Key	Destination
Talk	Call History
Navigation Up	Phonebook; first record selected
Navigation Down	Call History; first record selected
Navigation Left, HS idle	Message edit box
Navigation Right, HS idle	Message edit box
Navigation Center	(NA)
Volume key, HS idle	Ring volume control; HS plays selected melody

TROUBLESHOOTING

This section provides solutions to problems that might occur during the IP

Phone installation and operation, as well as answers to the frequently asked questions.

Problems Starting-Up

Symptom	Diagnosis	Solution
The battery does not charge.	Is the charger properly connected to the phone?	Connect the charger and the phone correctly.
	Is the charger connected to a 100-240V AC wall outlet?	Connect the charger to a 100-240V AC wall outlet correctly
The phone does not turn on.	Have you pressed and held the power button for more than 3 seconds?	Press and hold the power button for more than 3 seconds.
	Is the battery low?	Charge the battery.
	Is the battery connector reversed?	Insert the battery correctly.
Site Survey does not find my AP.	Is SSID broadcasting disabled on your AP?	Enable your AP's SSID broadcasting.
	Is the phone within the range of the AP?	Move to the AP's range.

Problems Using the Keypad

Symptom	Diagnosis	Solution
The wireless IP phone is on but the keypad does not work.	Have you locked the keypad?	Press the Left soft key and press * (start) key.

Problems Making Calls

Symptom	Diagnosis	Solution
Cannot make calls	Is the phone connected to an AP and registered with the service network?	Reference "Set up the wireless IP Phone" and ensure the wifi settings are correct.
	Is the phone outside of the AP's range? Is there sufficient signal strength?	Move closer to the AP for better signal.
	Is the phone number correct?	Enter the correct phone number to make calls.

Problems Receiving Calls

Symptom	Diagnosis	Solution
Phone does not ring	Is the ring mode of the current profile set to Vibrate or Silence?	Reference "Menu/Ring Tone Profile" and correct the ring mode setting.

Error Messages

Message on main screen	Diagnosis	Solution
No Service	Is the phone connected to an AP and registered with the service network?	Reference "Set up the wireless IP Phone" and ensure the wifi settings are correct.
Getting IP Address.....	Is DHCP enabled for the phone, or has an IP address manually entered for the phone?	Reference "Menu/Network/IP Settings" to check IP settings.
Registering.....	Have all SIP settings been entered correctly?	Reference "Set up the wireless IP Phone/Set up SIP registration" and check if all the settings match the information provided by your service provider.

SPECIFICATION

Model	WH2988
Wireless Characteristic	Signal Type: 802.11b/g Data Rate: 1, 2, 5.5, 11 Mbps for 11b Data Rate: 6,9,12,18,24,36,48,54Mbps for 11g
VoIP Protocol	IETF SIP (RFC 3261)
LCD Display	LCD Type: TFT color LCD Display Size: 1.8 inch Display Color: 65,536 color Resolution: 128 * 160
Keypad	23Keys

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Call Features	Call Hold Call Mute Call Retrieve Call Transfer Call Waiting Call Forward (Busy/No Answer/Unconditional) Caller ID Display Out-of-band DTMF (RFC 2833) Redial
Voice Codec	G.711u-law G.711a-law G.723.1 (5.3k) G.723.1 (6.3k) G.729a/b
Phone Functions	Ring Tone/Vibrator Switch Key Lock Pre-dial Handset/Ring Volume Adjustment Speed Dial (10 Records) Phone Book (200 Records) Call History (30 Records) Short Message (200 Records)
Operation Range	Outdoor Up to 200m (Light of Sight)
NAT Traversal	STUN
Security	HTTP 1.1 Basic/Digest Authentication MD5 for SIP Authentication (RFC 2069/ RFC 2617) IEEE 802.1x Wired Equivalent Privacy (WEP) 64/128 bit Encryption
Voice Quality	VAD (Voice Activity Detection) CNG (Comfort Noise Generation) AEC (Acoustic Echo Cancellation) G.167 LEC G.168 Jitter Buffer
QoS	802.11e
Tone	DTMF Ring Back Tone Dial Tone Busy Tone

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	Key Tone
IP Assignment	Static IP DHCP
Firmware Upgrade Adaptor	TFTP/FTP Input AC 100-240 V 50-60 Hz Output DC 5V 1000mA
Battery	3.7v, 1200mAh Li-on
Physical Dimension	Size: 113.5(L) * 51.6 (W) * 21 (H) mm Weight: 105g
Environmental	Operating Temperature: 0 ~ 45 °C Storage Temperature: -20 ~ 60 °C Operating Humidity: 20% ~ 80%
Ringer	32 Polyphonic Ring tones

WARRANTEE

CONTACT INFORMATION

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that

to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. To maintain compliance with FCC RF exposure compliance requirements, please follow operation instruction as documented in this manual.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

IEEE 802.11b or 802.11g operation of this product in the U.S.A. is firmware-limited to channels 1 through 11.

“For body worn operation, this phone has been tested and meets FCC RF exposure guidelines when used with an accessory that contains no metal and that positions the handset a minimum of 1.5 cm from the body. Use of other accessories may not ensure compliance with FCC RF exposure guidelines.”