



User Manual

X7&X7C

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3 FCC 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 or more 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 FCC radiation exposure limits set forth for an uncontrolled environment. This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons.

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.

Caution!

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

4 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 external power supply that is included in the package. Other power supply may cause damage to the phone and affect the behavior or induce noise.
- Before using the external power supply in the package, please check the home power voltage. Inaccurate power voltage may cause fire and damage.
- Please do not damage the power cord. If power cord or plug is impaired, do not use it because it may cause fire or electric shock.
- Do not drop, knock or shake the phone. Rough handling can break internal circuit boards.
- This phone is design for indoor use. Do not install the device in places where there is direct sunlight. Also do not put the device on carpets or cushions. It may cause fire or breakdown.
- Avoid exposure the phone to high temperature or below 0°C or high humidity.
- Avoid wetting the unit with any liquid.
- 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.
- Do not use harsh chemicals, cleaning solvents, or strong detergents to clean it. Wipe it with a soft cloth that has been slightly dampened in a mild soap and water solution.
- When lightning, do not touch power plug, it may cause an electric shock.
- 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.

5 Overview

5.1 Overview

The new Fanvil X7&X7C IP Phone is a high-end enterprise desktop phone which comes with an intelligent DSS Key-mapping LCD to increase enterprise users' productivity at a cost-effective price.

The new DSS key design with dynamic intelligent color display can replace the traditional expansion board function. X7C smart display can dynamically display 5 pages, each page can display 12 Side Key Settings, a total of 60 user-defined DSS Key mapping; The page turning shortcut allows users to quickly switch to the specified page. Each DSS key displays green, red, and yellow LED indicators to reflect the current state of the key. X7 touch screen can display 4 pages dynamically each page can display 29 DSS keys and 1 expansion key; There are also 11 configurable Side DSS keys in standby, a total of 127 user-defined DSS key mappings. The icon for each DSS key maps the current state of the phone line.

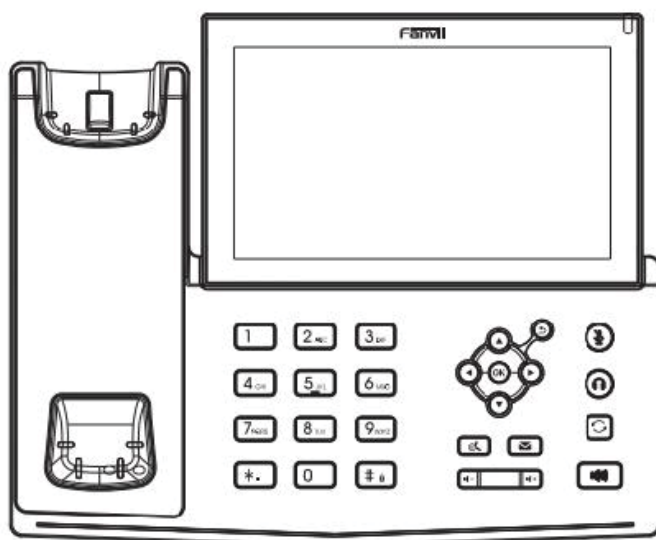
Evolved from Fanvil's X6 enterprise IP phones, X7&X7C pushes its high-end cost-effective enterprise IP phone to another level. X7&X7C inherits all enterprise features from Fanvil's X-Series enterprise phones, such as HD voice in handset, headset, and full-duplex speakerphone modes, PoE, Fast/Gigabit Ethernet, QoS, secure transmission, auto-provisioning, and more.

X7&X7C is a great office productivity appliance for enterprise users. The old DSS key label is inconvenient and not environmental friendly. X7&X7C's intelligent DSS Key-mapping LCD provides users the flexibility to change DSS key definition and display through easy configuration. Meanwhile, with its intelligent design of the DSS key/LCD, it can be multiplied as expansion modules to save space and cost. X7&X7C will provide the best user experience to advance enterprise users."

In order to help some users who are interested to read every detail of the product, this user manual is provided as a user's reference guide. Still, the document might not be up to date with the newly release software, so please kindly download updated user manual from Fanvil website, or contact with Fanvil support if you have any question using X7&X7C.

5.2 Packing Contents

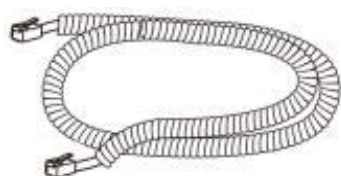
5.2.1 X7 Packing Contents



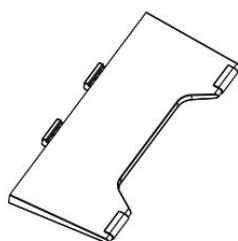
Phone



Handset



Receiver cable



Stand

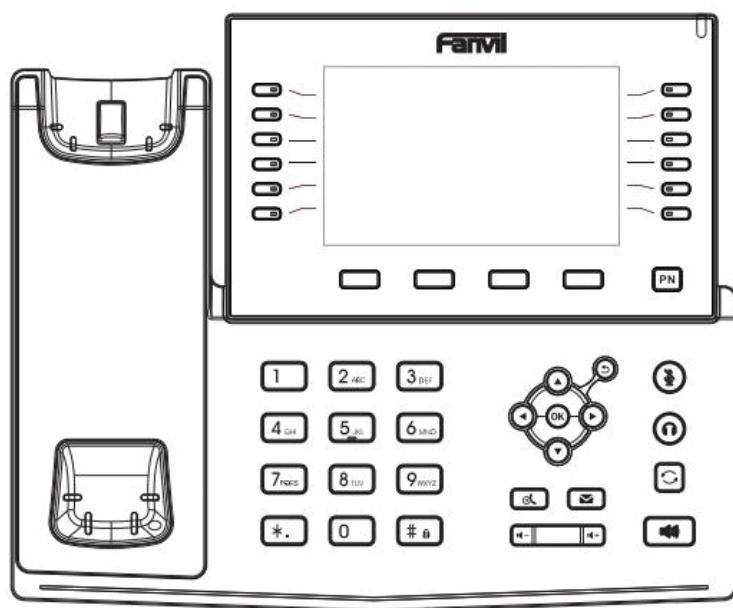


Network cable



Power adapter (Optional)

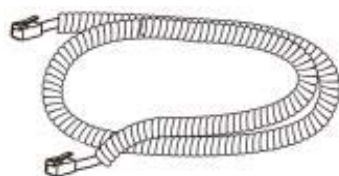
5.2.2 X7C Packing Contents



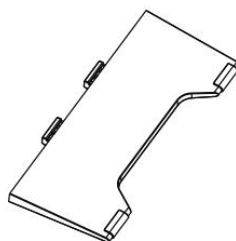
Phone



Handset



Receiver cable



Stand



Network cable



Power adapter (Optional)

6 Install Guide

6.1 Use PoE or external Power Adapter

X7&X7C, called as 'the device' hereafter, supports two power supply modes, power supply from external power adapter or over Ethernet (PoE) complied switch.

X7 and X7C PoE power supply maximum power support to Class 3 (6.49-12.95W).

PoE power supply saves the space and cost of providing the device additional power outlet. With a PoE switch, the device can be powered through a single Ethernet cable which is also used for data transmission. By attaching UPS system to PoE switch, the device can keep working at power outage just like traditional PSTN telephone which is powered by the telephone line.

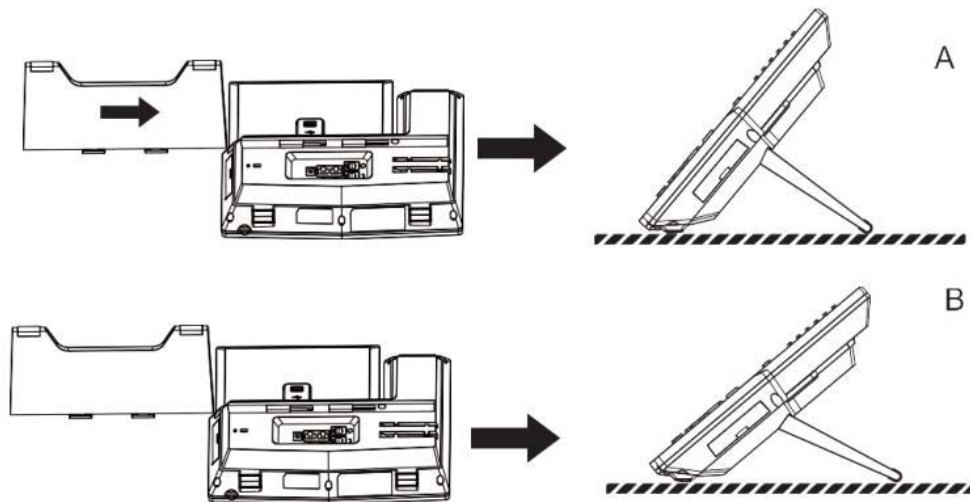
For users who do not have PoE equipment, the traditional power adaptor should be used. If the device is connected to a PoE switch and power adapter at the same time, the power adapter will be used in priority and will switch to PoE power supply once it fails.

Please use the power adapter supplied by Fanvil and the PoE switch met the specifications to ensure the device work properly.

6.2 Desktop Installation

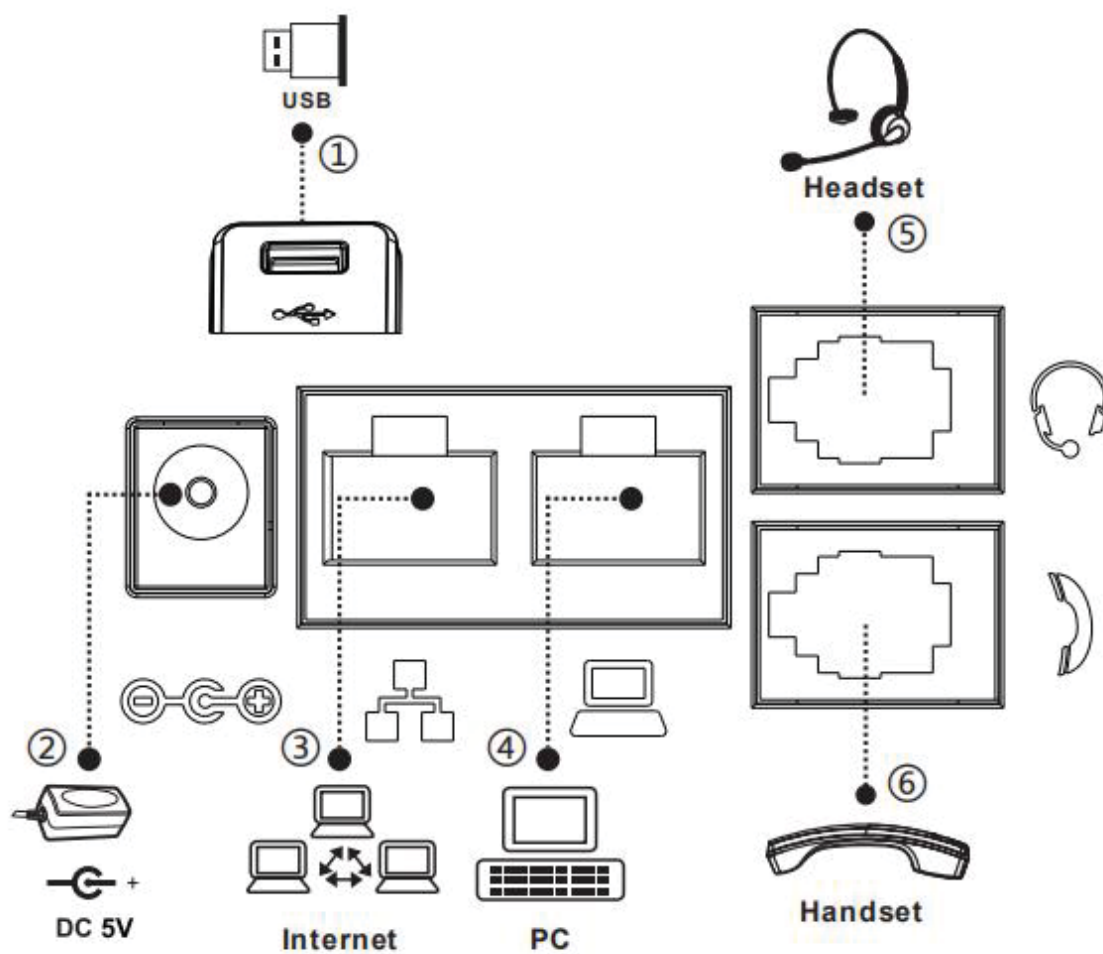
6.2.1 X7&X7C Desktop Installation

The device supports desktop use. If the phone is placed on the desktop, please follow the instructions in the picture below to install the phone.



Picture 1 - Desktop phone installation

Please connect power adapter, network, PC, handset, and headphone to the corresponding ports as described in below picture.



Picture 2 - Connecting to the Device

7 Appendix Table

7.1 Appendix I - Icon

Table 1 - Keypad Icons

	Redial
	Return
	Hands-free (HF) speaker
	Mute Microphone (During Call)
	Volume down
	Volume up
	Hold
	Handset
	MWI
PN	Page turning key (only supported by X7C)

Table 2 - Status Prompt and Notification Icons

	Call out
	Call in
	Call Hold
	Network Disconnected
	Open VLAN
	Open VPN
	Keypad Locked
	Missed calls (only supported by X7C)
	SMS (only supported by X7C)
	New voice message waiting (only supported by X7C)

	Do-Not-Disturb activated on Phone
	Do-Not-Disturb inactivated on Phone (only supported by X7C)
	Call forward activated
	Auto-answering activated
	Hands-free (HF) Mode
	Headphone (HP) Mode
	Handset (HS) Mode
	Mute Microphone
	The Voice quality of calling
	The Voice encryption of calling
	Connecting WIFI
	Open Bluetooth
	Open SIP Hotline
	Open DND
	Missed calls
	Unread messages
	Unread voice message
	USB overload prompt

	USB insert tips
---	-----------------

Table 3 - DSSkey Icons

Icon	Translate	Instruction
	BLF/NEW CALL	The new call
	BLF/BXFER	Blind transfer
	BLF/AXFER	Attend transfer
	BLF/CONF	Conference
	BLF/DTMF	BLF/DTMF
	Presence	Presence
	MWI	Voice message
	Speed Dial	Speed Dial
	Intercom	Intercom
	Call Park	Call Park
	Call forward	Call forward
	Key Event	Function key
	URL/Action URL	Network function key
	BLF List	BLF List
	Multicast	Multicast

	Memory Key None	Memory Key subtype None
	None	Undefined DSS function key
	Line	SIP Line
	DTMF	DTMF
	More (only supported by X7)	More
	Hide (only supported by X7)	Hide

7.2 Appendix II – Keyboard character query table

Table 4 - Look-up Table of Characters

Mode Icon	Text Mode	Key Button	Characters Of Each Press
	Numeric		1
			2
			3
			4
			5
			6
			7
			8
			9
			0
			*
			#
	Lower Case Alphabets		@::()<>
			a b c
			d e f
			g h i

		5	j k l
		6	m n o
		7	p q r s
		8	t u v
		9	w x y z
		0	(space)
		*	.,*/+-.:_=
		#	# ^!&\$%

	Upper Case Alphabets		@:;()<>
			A B C
			D E F
			G H I
			J K L
			M N O
			P Q R S
			T U V
			W Z Y X
			(space)
			.,*/+:-:_=
			# ^!&\$%
	Mixed type input		1
			2 a b c A B C
			3 d e f D E F
			4 g h I G H I
			5 j k l J K L
			6 m n o M N O
			7 p q r s P Q R S
			8 t u v T U V
			9 w z y x W Z Y X
			0
			.,*/+:-:_=
			# ^!&\$%

7.3 Appendix III –LED Definition

Table 5 - DSS KEY LED State

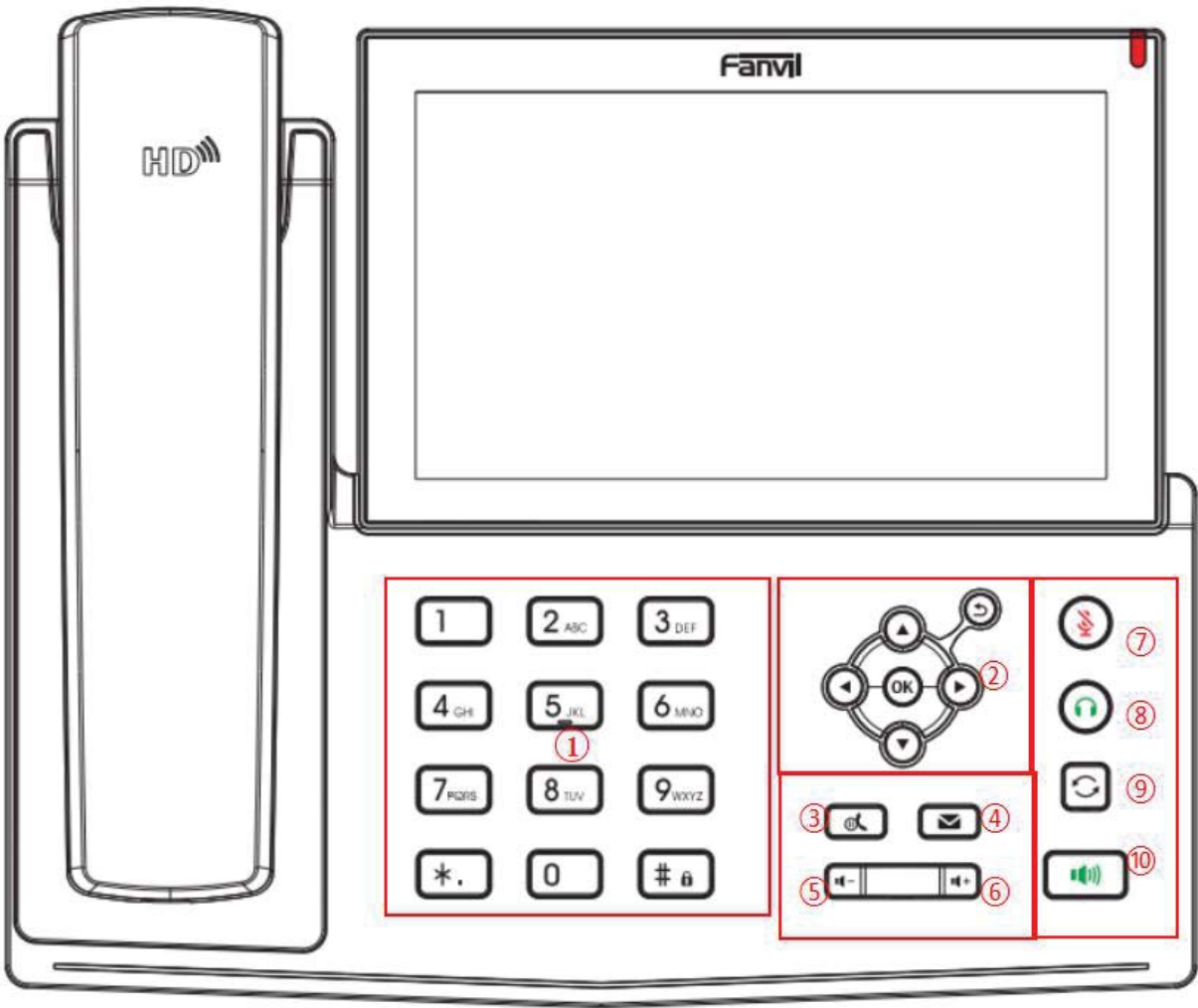
Type	X7 LED Icons	X7 LED State	X7C LED Light	X7C LED State
Line Key		Gray	Off	Line inactive
		Green On	Green On	Line ready (Registered)
		Green Blinking	Green Blinking	Ringing
		Red Blinking	Red Blinking	Line is trying to register
		Red Blinking	Red Blinking	Line error (Registration failure)
		Red On	Red On	Dialing/Line in use (Talking)
		Yellow Blinking	Yellow Blinking	Call holding
BLF		Green On	Green On	Subscription number is idle.
		Red On	Red On	Subscription number is busy.
		Red On	Red On	Subscription number is dialing.
		Gray	Off	Subscription number is unavailable.
Presence		Green On	Green On	Subscription number is idle.
		Red On	Red On	Subscription number is busy.
		Red On	Red On	Subscription number is dialing.
		Gray	Off	Subscription number is unavailable.
DND		Red On	Red On	Enable DND

Type	X7 LED Icons	X7 LED State	X7C LED Light	X7C LED State
		Gray	Off	Disable DND
MWI		Green Blinking	Green Blinking	New voice message waiting
		Gray	Off	No new voice message

8 Introduction to the User

8.1 Instruction of Keypad

8.1.1 Instruction of the X7 Keypad



Picture 3 - Instruction of Keypad

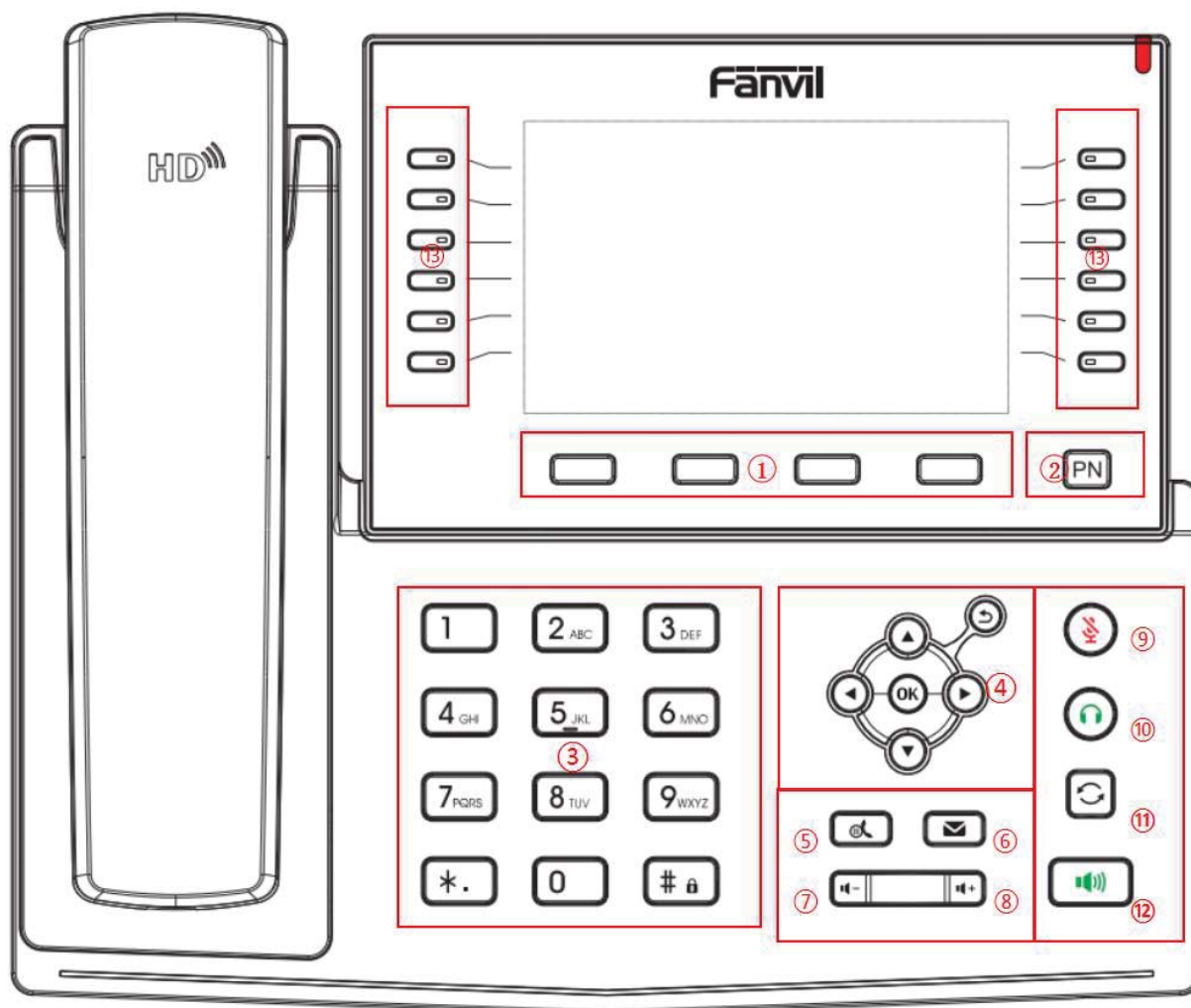
The above picture shows the keypad layout of the device. Each key provides its own specific function. User should refer to the illustration in this section about the usage of each key and the description in this document about each function.

Table 6 - Instruction of Keypad

Number	The keypad names	Instruction
--------	------------------	-------------

①	DTMF Key	These 12 standard phone keys provide standard phone button functionality. At the same time, certain long key presses can be triggered to provide special functions. #- Long presses this key to open the keyboard lock configuration.
②	Navigate/OK /Return Keys	The user can press the up/down navigation key to change the line or move the cursor in the screen list. On some Settings and text editing pages, the user can press the left/right navigation key to change options or move the cursor in the screen list to the left/right. OK key: Default is equivalent to soft button confirmation, user can customize the function. Return key: it will return to the upper menu under any interface, and it can be used to reject or hang up when making a phone call or making a call.
③	Hold Key	Press the "Hold" key during the call, the user can hold the call, and press it again to cancel the holding and restore the normal call state.
④	Voice Mail Key	Press the "voice mail" button, and the user enters the interface of SMS and voice mail list.
⑤	Volume Down Key	In the standby state, ring and ring configuration interface, press this button to reduce the ring volume; Press this button to lower the volume on the call or volume adjustment screen.
⑥	Volume Up Key	In the standby state, ring and ring configuration interface, press this button to increase the ring volume; Press this button to increase the volume on the call or volume adjustment screen.
⑦	Mute Key	During a call, the user can press this key to mute the microphone.
⑧	Headset Key	Users can press this key to open the headset channel
⑨	Redial Key	Press the Redial key to redial the last number dialed
⑩	Hands-free Key	The user can press this key to open the audio channel of the speakerphone.

8.1.2 Instruction of the X7C Keypad



Picture 4 - Instruction of Keypad

Table 7 - Instruction of Keypad

Number	The keypad names	Instruction
①	Function Menu Key	These four keys provide the corresponding menu function on the screen.
②	Page Switch Key	Press the "page switch" key, the user can switch to the first, second and third screen function key page.
③	DTMF Key	These 12 standard phone keys provide standard phone button functionality. At the same time, certain long key presses can be triggered to provide special functions. Long presses this key to open the keyboard lock configuration.

④	Navigate/OK /Return Keys	The user can press the up/down navigation key to change the line or move the cursor in the screen list. On some Settings and text editing pages, the user can press the left/right navigation key to change options or move the cursor in the screen list to the left/right. OK key: Default is equivalent to soft button confirmation, user can customize the function. Return key: it will return to the upper menu under any interface, and it can be used to reject or hang up when making a phone call or making a call.
⑤	Hold Key	Press the "Hold" key during the call, the user can hold the call, and press it again to cancel the holding and restore the normal call state.
⑥	Voice Mail Key	Press the "voice mail" button, and the user enters the interface of SMS and voice mail list.
⑦	Volume Down Key	In the standby state, ring and ring configuration interface, press this button to reduce the ring volume; Press this button to lower the volume on the call or volume adjustment screen.
⑧	Volume Up Key	In the standby state, ring and ring configuration interface, press this button to increase the ring volume; Press this button to increase the volume on the call or volume adjustment screen.
⑨	Mute Key	During a call, the user can press this key to mute the microphone.
⑩	Headset Key	Users can press this key to open the headset channel
⑪	Redial Key	Press the Redial key to redial the last number dialed
⑫	Hands-free Key	The user can press this key to open the audio channel of the speakerphone.
⑬	DSS Shortcut Key	Long press the DSS shortcut key to enter the setting interface and set the required functions

8.2 Using Handset / Hands-free Speaker / Headphone

■ Using Handset

To talk over handset, user should lift the handset off the device and dial the number, or dial the

number first, then lift the handset and the number will be dialed. User can switch audio channel to handset by lifting the handset when audio channel is opened in speaker or headphone.

■ Using Hands-free Speaker

To talk over hands-free speaker, user should press the hands-free button then dial the number, or dial the number first then press the hands-free button. User can switch audio channel to the speaker from handset by pressing the hands-free button when audio channel is opened in handset.

■ Using Headphone

To use headphone, by default, user should headset button which is defined by DSS key to turn on the headphone. Same as handset and hands-free speaker, user can dial the number before or after headphone turned on.

■ Using Line Keys(Defined by DSS Key)

User can use line key to make or answer a call on specific line. If handset has been lifted, the audio channel will be opened in handset. Otherwise, the audio channel will be opened in hands-free speaker or headphone.

8.3 Idle Screen



Picture 5 - X7 default home screen

The image above shows the default standby screen, which is the user interface most of the time.

The upper half of the home screen shows the status of the device, information and data that can be edited (such as voice messages, missed calls, auto answer, do not disturb, lock status, network

connection status, etc.).

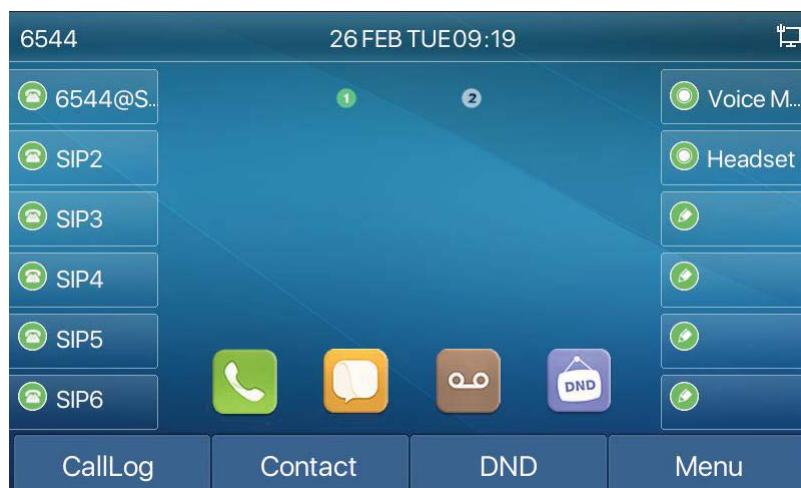
The lower half of the area is the function menu key, which is also the first layer of function menu keys, through which users can operate the phone.

Users can restore the phone to the default standby screen interface by picking up and dropping the handle.

The left and right part of the area shows default configuration of Side key, which dynamically displays the configuration of SIP information, message, headset, etc., which can be customized by users.

The icon description is described in [6.1 appendix I.](#)

The following is the default standby interface of X7C. Unlike X7, X7C displays the current default page number of Side Key.



Picture 6 - X7C default home screen

In some screens, there are many items or long text to be displayed which could not fit into the screen. They will be arranged in a list or multiple lines with a scroll bar. If user sees a scroll bar, user can use up/down navigator buttons to scroll the list. By long-pressed the navigator keys, user can scroll the list or items in a faster speed.

The following figure is the case that the X7 screen cannot be fully displayed. You can click the up or down icon in the next page to scroll to see other items or text content.

Dial Peer	Account	09 : 32
Network	1. Fanvil Registered	1/4
Phone	2. SIP2 Unapplied	
Account	3. SIP3 Unapplied	
TR069	4. SIP4 Unapplied	
	5. SIP5 Unapplied	
	6. SIP6 Unapplied	
Return		

Picture 7 - Scroll icon

8.4 Phone Status

The phone status includes the following information about the phone:

- Network Status:
 - VLAN ID
 - IPv4 or IPv6 status
 - IP Address
 - Network Mode
- The Phone Device Information:
 - Mac Address
 - Phone Mode
 - Hardware Version number
 - Software Version number
 - Phone Storage (RAM and ROM)
 - System Running Time
- SIP Account Information:
 - SIP Account
 - SIP Account Status (registered / uncommitted / trying / time out)
- TR069 Connect Status (Displays only in the phone interface state)

The user can view the phone status through the phone interface and the web interface.

- Phone interface : When the phone is in standby mode, press **[Menu]** >> **[Status]** and select the option to view the corresponding information, as shown in the figure:

Fanvil		Network		09 : 35
Network	1. Vlan Id			

Picture 8 - The Phone status

- WEB interface: Refer to [7.5 Web management](#) to log in the phone page, enter the [System] >> [Information] page, and check the phone status, as shown in the figure:

The screenshot displays the Fanvil X7 WEB interface. The left sidebar contains a navigation menu with options: System, Network, Line, Phone settings, Phonebook, Call logs, Function Key, Application, Security, and Device Log. The main content area is titled 'System Information' and includes the following sections:

- System Information:** Model: X7, Hardware: V1.0, Software: 1.0.2, Uptime: 00 : 06 : 47, MEMInfo: ROM: 21.4/ 128(M) RAM: 51.3/94(M).
- Network:**
 - WAN:** Network mode: DHCP, MAC: 00:a8:59:00:11:34.
 - IPv4:** IP: 172.16.7.167, Subnet mask: 255.255.255.0, Default gateway: 172.16.7.1.
- VQ status:** A table showing various performance metrics.

Start time:	Stop time:
Local user:	Remote user:
Local IP:	Remote IP:
Local Port:	Remote port:
Local codec:	Remote codec:
Jitter:	JitterBufferMax:
Packets lost:	NetworkPacketLossRate:
MOS-LQ:	MOS-CQ:
RoundTripDelay:	EndSystemDelay:
SymmOneWayDelay:	JitterBufferRate:
- SIP Accounts:** A table showing account status.

Line 1	6554@172.16.1.2:5060	Registered
Line 2	N/A	Inactive
Line 3	N/A	Inactive

Picture 9 - WEB phone status

8.5 Web Management

Phone can be configured and managed on the web page of the phone. The user first needs to enter the IP address of the phone in the browser and open the web page of the phone. The user can check the IP address of the phone by pressing **[Menu]** >> **[Status]**.



Picture 10 - Landing page

Users must correctly enter the user name and password to log in to the web page. The default user name and password are "admin". For the specific details of the operation page, please refer to page [11 Web configuration](#).

8.6 Network Configurations

The device supports two kinds of network connection modes: wired network connection and wireless network connection. This section describes the wired network connection. For wireless network connection, refer to [10.5 wi-fi](#).

The device relies on IP network connection to provide service. Unlike traditional phone system based on a circuit switched wire technology, IP devices are connected to each other over the network and exchange data in packet basis based on the devices' IP address.

To enable this phone, you must first correctly configure the network configuration. To configure the network, users need to find the phone function menu button **[Menu]** >> **[Advanced Settings]** >> **[Network]** >> **[Network]**.

The default password for advanced Settings is "123".

NOTICE! If user saw a  'WAN Disconnected' icon flashing in the middle of screen, it means the network cable was not correctly connected to the device's network port. Please check the cable is connected correctly to the device and to the network switch, router, or

modem.

The device supports three types of networks, IPv4/IPv6/IPv4&IPv6

There are three common IP configuration modes about IPv4

- Dynamic Host Configuration Protocol (DHCP) – This is the automatic configuration mode by getting network configurations from a DHCP server. Users need not to configure any parameters manually. All configuration parameters will be getting from DHCP server and applied to the device. This is recommended for most users.
- Static IP Configuration – This option allows user to configure each IP parameters manually, including IP Address, Subnet Mask, Default Gateway, and DNS servers. This is usually used in an office environment or by power users.
- PPPoE – This option is often used by users who connect the device to a broadband modem or router. To establish a PPPoE connection, user should configure username and password provided by the service provider.

The device is default configured in DHCP mode.

There are three common IP configuration modes about IPv6

- DHCP – This is the automatic configuration mode by getting network configurations from a DHCP server. Users need not to configure any parameters manually. All configuration parameters will be getting from DHCP server and applied to the device. This is recommended for most users.
- Static IP configuration - this option allows users to manually configure each IP parameter, including IP address, mask, gateway, and primary and secondary domains. This usually applies to some professional network user environments.

Please see 10.7.2.1 network Settings for detailed configuration and use.

8.7 SIP Configurations

A line must be configured properly to be able to provide telephony service. The line configuration is like a virtualized SIM card. Just like a SIM card on a mobile phone, it stores the service provider and the account information used for registration and authentication. When the device is applied with the configuration, it will register the device to the service provider with the server's address and user's authentication as stored in the configurations.

The user can conduct line configuration on the interface of the phone or the webpage, and input the corresponding information at the registered address, registered user name, registered password and SIP user, display name and registered port respectively, which are provided by the SIP server administrator.

- Phone interface: To manually configure a line, the user can press the line key for a long time, or press the button in the function menu **[Menu]** >> **[Advanced Settings]** >> **[Accounts]** >> **[Basic]** configuration, click “OK” to save the configuration.

NOTICE! User must enter correct PIN code to be able to advanced settings to edit line configuration. (The default PIN is 123)

The parameters and screens are listed in below pictures.



The screenshot shows the 'Basic' configuration screen for a SIP account. The left sidebar has a menu with 'Accounts' selected. The main area contains the following fields:

Field	Value
1. SIP	SIP1
2. Registration	Enabled
3. Server Address	172.16.1.2
4. Auth. User	
5. Auth. Password	
6. SIP User	6554

At the bottom, there are four buttons: Return, Left, Right, and OK. The screen also shows a status bar at the top with 'Fanvil', 'Basic', and '09:44'.

Picture 11 - Phone line SIP address and account information



The screenshot shows the 'Basic' configuration screen for a SIP account, continuing from the previous screen. The left sidebar has a menu with 'Accounts' selected. The main area contains the following fields:

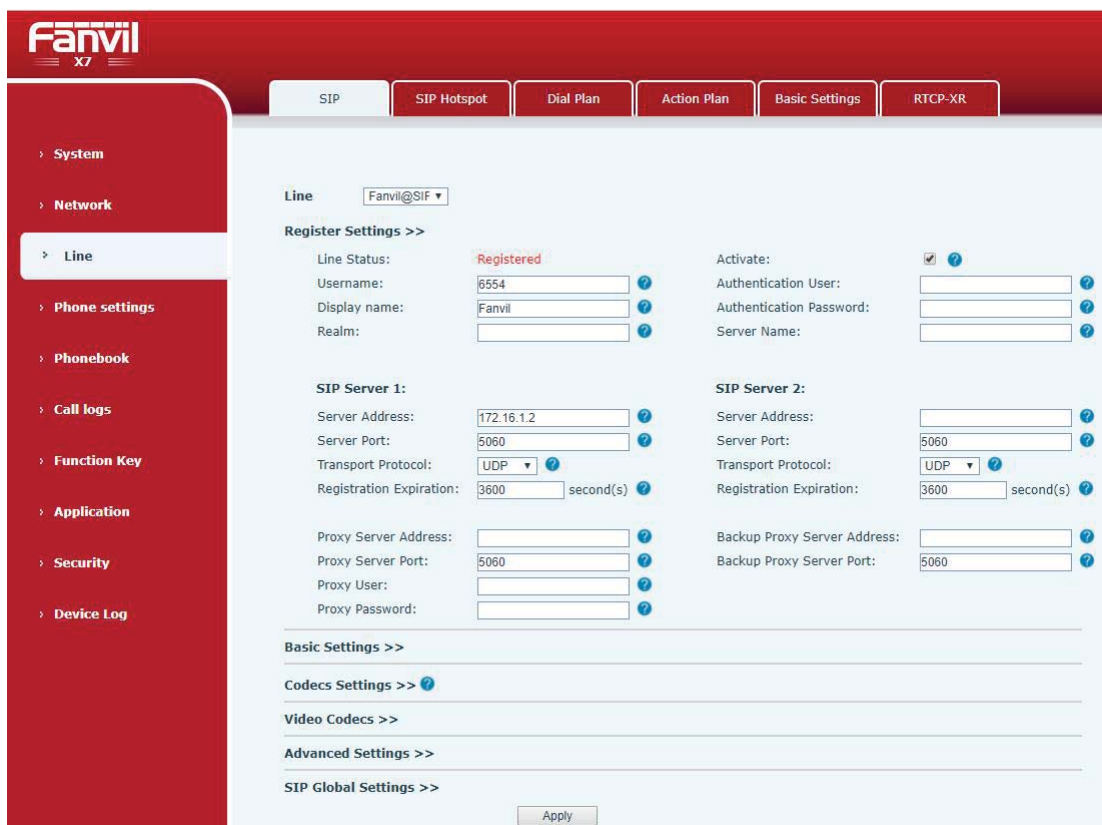
Field	Value
7. Display Name	Fanvil
8. Server Port	5060
9. Proxy Address	
10. Proxy User	
11. Proxy Password	
12. Proxy Port	5060

At the bottom, there are four buttons: Return, Abc, Delete, and OK. The screen also shows a status bar at the top with 'Fanvil', 'Basic', and '09:45'.

Picture 12 - Phone display name and port

- WEB interface : After logging into the phone page, enter **[Line]** >> **[SIP]** and select **SIP1/SIP2/SIP3/.../SIP18/SIP19/SIP20** for configuration, click apply to complete registration

after configuration, as shown below:



Fanvil X7

SIP SIP Hotspot Dial Plan Action Plan Basic Settings RTCP-XR

System
Network
Line
Phone settings
Phonebook
Call logs
Function Key
Application
Security
Device Log

Line: Fanvil@SIF

Register Settings >>

Line Status: Registered
Username: 6554
Display name: Fanvil
Realm:
Activate: ☒
Authentication User:
Authentication Password:
Server Name:
SIP Server 1:
Server Address: 172.16.1.2
Server Port: 5060
Transport Protocol: UDP
Registration Expiration: 3600 second(s)
SIP Server 2:
Server Address:
Server Port: 5060
Transport Protocol: UDP
Registration Expiration: 3600 second(s)
Proxy Server Address:
Proxy Server Port: 5060
Proxy User:
Proxy Password:
Backup Proxy Server Address:
Backup Proxy Server Port: 5060
Basic Settings >>
Codecs Settings >>
Video Codecs >>
Advanced Settings >>
SIP Global Settings >>
Apply

Picture 13 - Web SIP registration

9 Basic Function

9.1 Making Phone Calls

■ Default Line

The device provides twenty line services. If both lines are configured, user can make or receive phone calls on either line. If default line is configured by user, there will be a default line to be used for making outgoing call which is indicated on the top left corner. To change the default line, user can press left/right navigator buttons to switch between two lines. Enable or disable default line, user can press **[Menu]** >> **[Features]** >> **[Basic]** >> **[General]** >> **[Default Line]** or configure from Web Interface (Web / PHONE / Features / Basic Settings).



Picture 14 - Default line

■ Dialing Methods

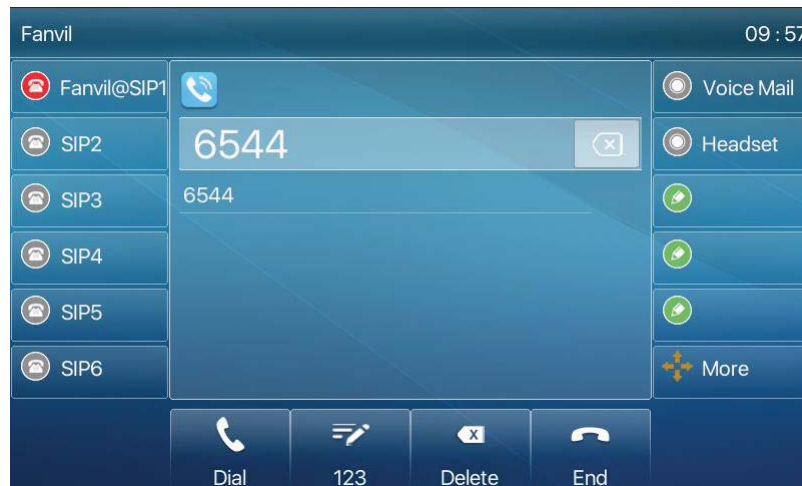
User can dial a number by,

- Entering the number directly
- Selecting a phone number from phonebook contacts (Refer to [10.2.1 Local contacts](#))
- Selecting a phone number from cloud phonebook contacts (Refer to [10.2.3 Cloud Phone Book](#))
- Selecting a phone number from call logs (Refer to [10.3 Call Log](#))
- Redialing the last dialed number

■ Dialing Number then Opening Audio

To make a phone call, user can firstly dial a number by one of the above methods. When the dialed number is completed, user can press **[Dial]** button on the soft-menu, or press

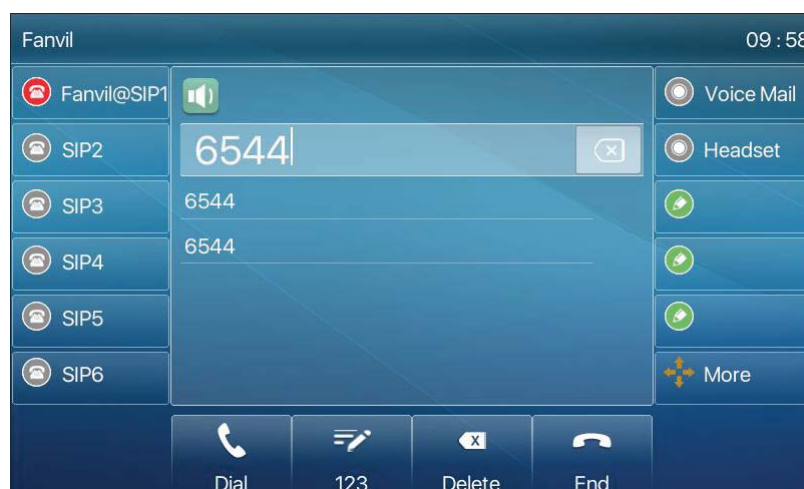
hand-free button to turn on the speaker or headphone, or lift the handset to call out with the current line, or user can press line key(Configured by DSS Keys) to call out with specified line.



Picture 15 - Enable voice channel dialing

■ Opening Audio then Dialing the Number

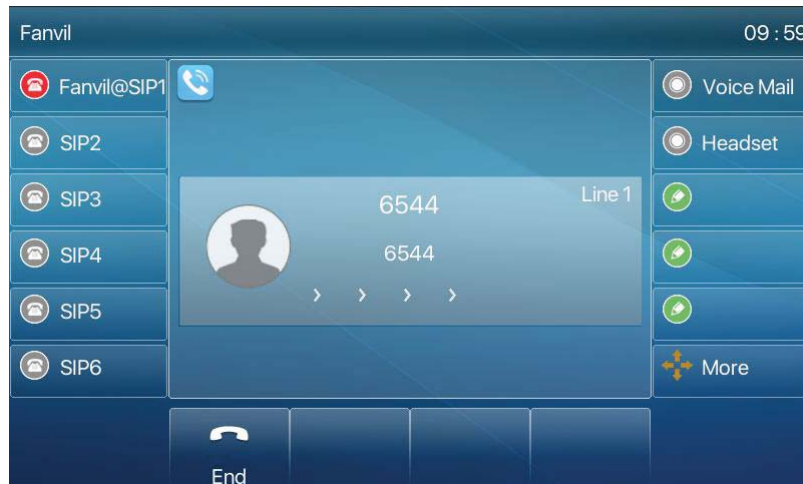
Another alternative is the traditional way to firstly open the audio channel by lifting the handset, turning on the hands-free speaker or headphone by pressing hands-free button, or line key, and then dial the number with one of the above methods. When number dialed completed, user can press **[Dial]** button or **[OK]** button to call out, or the number will be dialed out automatically after timeout.



Picture 16 - Open the voice channel and dial the number

■ Cancel Call

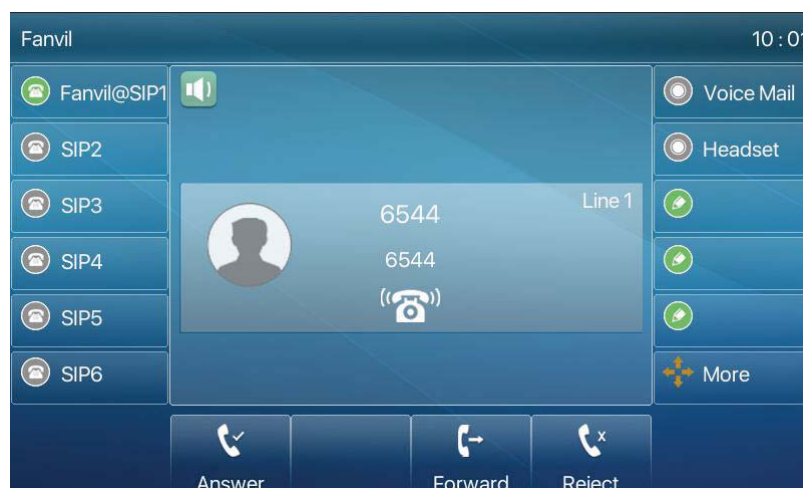
While calling the number, user can press end the audio channel by putting back the handset or pressing the hands-free button to drop the call.



Picture 17 - Call number

9.2 Answering Calls

When the phone is idle and there is a call, the user will see the call reminder screen below.



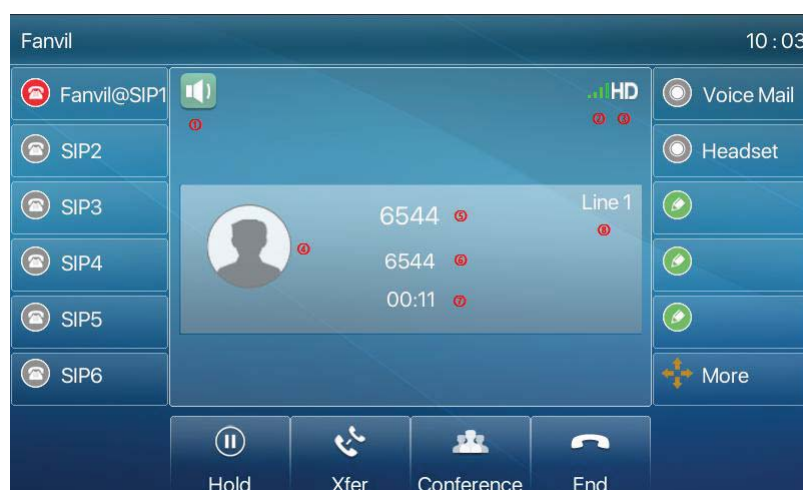
Picture 18 - Answering calls

User can answer the call by lifting the handset, open headphone or speaker phone by

pressing the hands-free button, or the [Answer] button. To divert the incoming call, user should press **[Divert]** button. To reject the incoming call, user should press **[Reject]** button.

9.2.1 Talking

When the call is connected, user will see a talking mode screen as the following figure.



Picture 19 - Talking interface

Table 8 - Talking mode

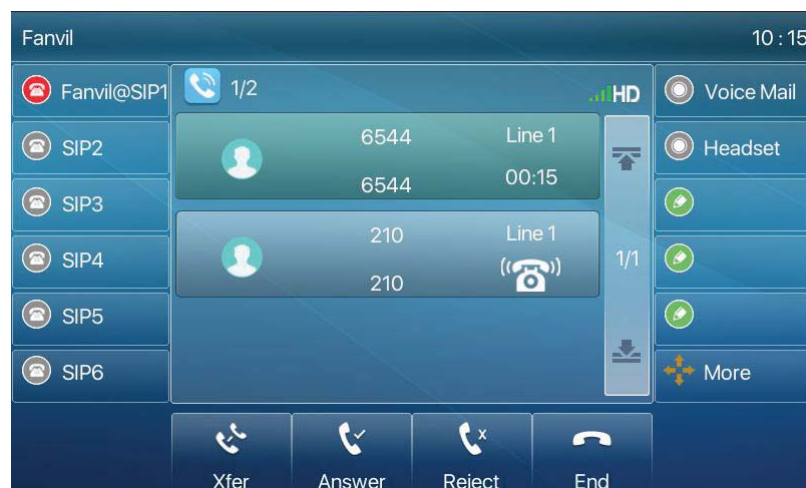
Number	Name	Description
①	Voice channel	The icon shows the voice channel mode being used.
②	Speech quality	Displays the current voice quality of the call.
③	HD audio	Call using G.722 voice coding calls when displayed HD voice icon.
④	User Account Pictures	Default display, user can choose a custom portrait picture.
⑤	Calls to end	The name or number of the person on the other end of the call.
⑥	Name on the other end	Name on the other end
⑦	Call duration	The duration of a call after it has been established.
⑧	The current line	The line currently used by the phone.

9.2.2 Make / Receive Second Call

The device can support up to two concurrent calls. When there is already a call established, user can still answer another incoming call on either lines or make a second call on either lines.

■ Second Incoming Call

When there is another incoming call during talking a phone call, this call will be waiting for user to answer it. User will see the call message in the middle of current screen. The device will not be ringing but playing call waiting tone in the audio channel of the current call and the LED will be flashing in green. User can accept or reject the call as same as normal incoming call. When the waiting call is answered, the first call will be put on hold automatically.



Picture 20 - The second call interface

■ Second Outgoing Call

To make a second call, user may press [**Xfer**] / [**Conf**] button to make a new call on the default line or press the line key to make new call on specific line. Then dial the number the same way as making a phone call. Another alternative for making second call is to pressing DSS Keys dial out from the configured Keys (BLF/Speed Dial). When the user is making a second call with the above methods, the first call could be placed on hold manually first or will be put on hold automatically at second dial.

■ Switching between Two Calls

When there are two calls established, user will see a dual calls screen as the following picture.



Picture 21 - Two way calling

User can press up/down navigator buttons to switch screen page, and switch call focus by pressing **[Resume]** button.

■ Ending One Call

User may hang up the current talking call by closing the audio channel or press **[End]** button. The device will return to single call mode in holding state.

9.3 End of the Call

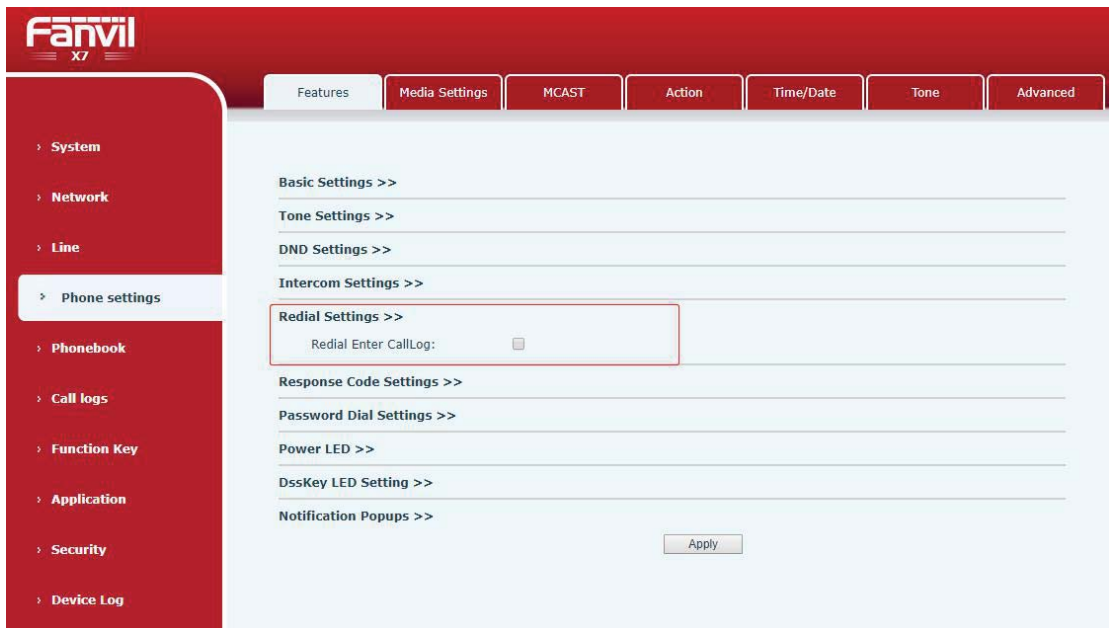
After the user finishes the call, the user can put the handle back on the phone, press the hands-free button or Softkey **[End]** key to close the voice channel and end the call.

*Note! When the phone is in the reserved state, the user must press the **[Resume]** key to return to the call state, or put the receiver back and press the hands-free hook to end the call.*

9.4 Redial

- Redial the last outgoing number:
When the phone is in standby mode, press the redial button and the phone will call out the last number dialed.
- Call out any number with the redial key:
Enter the number, press the redial key, and the phone will call out the number on the dial.
- Press the redial key to enter the call record:
Log in the phone page, enter **[Phone Settings]** >> **[Features]** >> **[Redial Settings]**,

check redial to enter the call record, press the redial button when standby to enter the call record page, and press again to call out the currently located number.



Picture 22 - Redial set

9.5 Dial-up Query

Phone default to open the dial-up inquiry function, dial-out, enter two or more Numbers, dial the interface will automatically match call records, contacts in the number list, use the navigation key up and down keys can select the number, press the call out key or time out.

9.6 Auto-Answering

User may enable auto-answering feature on the device and any incoming call will be automatically answered (not including call waiting). The auto-answering can be enabled on line basis.

The user can start the automatic answer function in the telephone interface or the webpage interface.

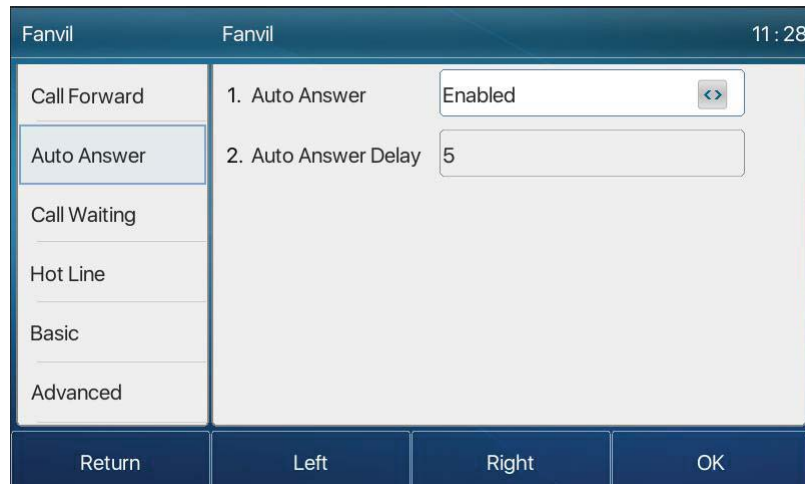
● Phone interface:

Press **[Menu]** >> **[Features]** >> **[Auto Answer]** button;

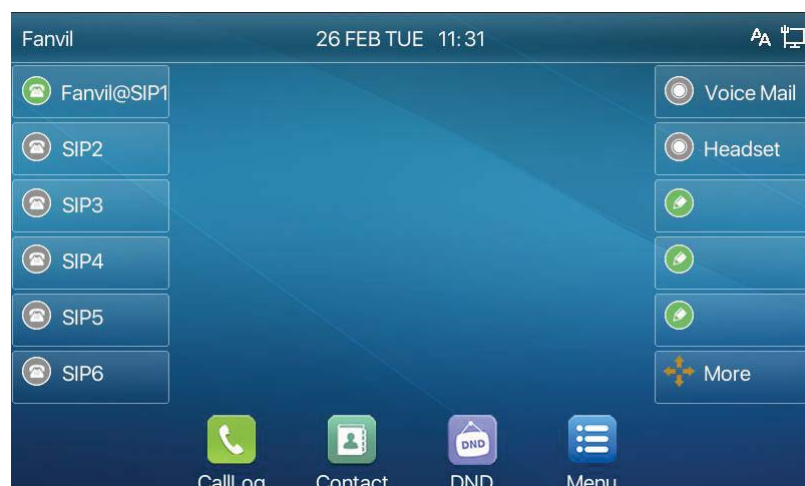
Press the button to select the line, use the left/right navigation key to turn on/off the auto answer option, and set the auto answer time to 5 seconds by default.

After completion, press **[OK]** key to save;

The icon in the upper right corner of the screen  indicates that auto answer is enabled.



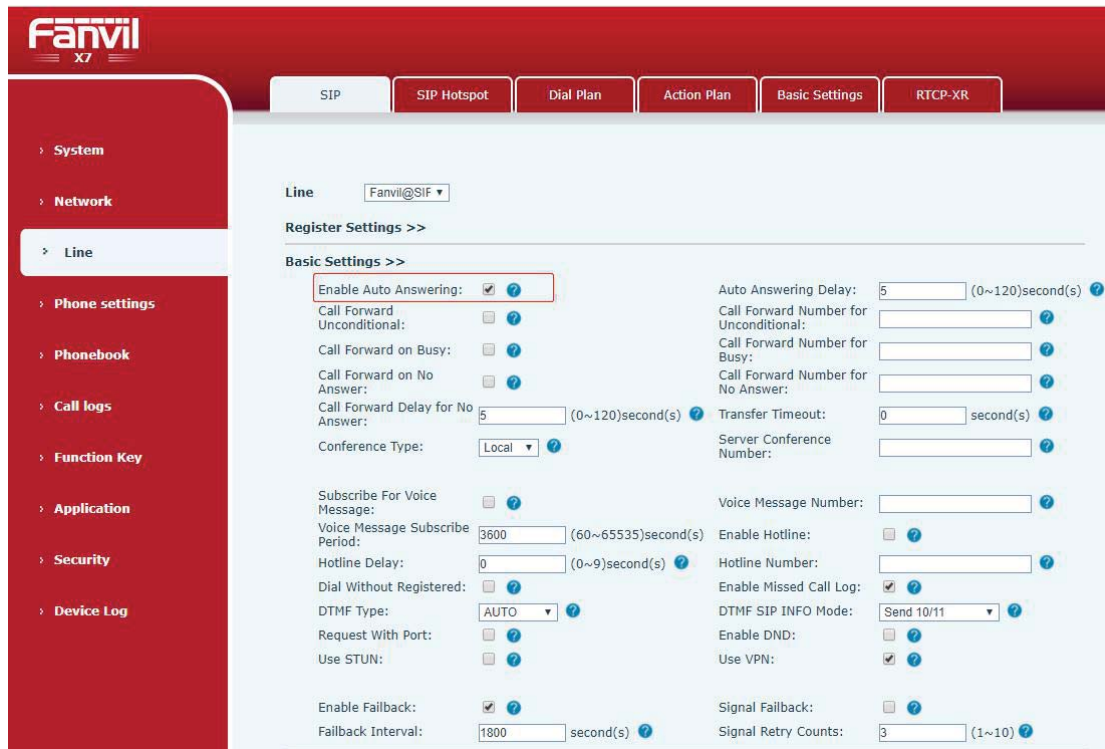
Picture 23 - Line 1 enables auto-answering



Picture 24 - The line has enabled auto-answering

- **WEB interface:**

Log in the phone page, enter **[Line]** >> **[SIP]**, select **[SIP]** >> **[Basic settings]**, start auto-answering, and click apply after setting the automatic answering time.

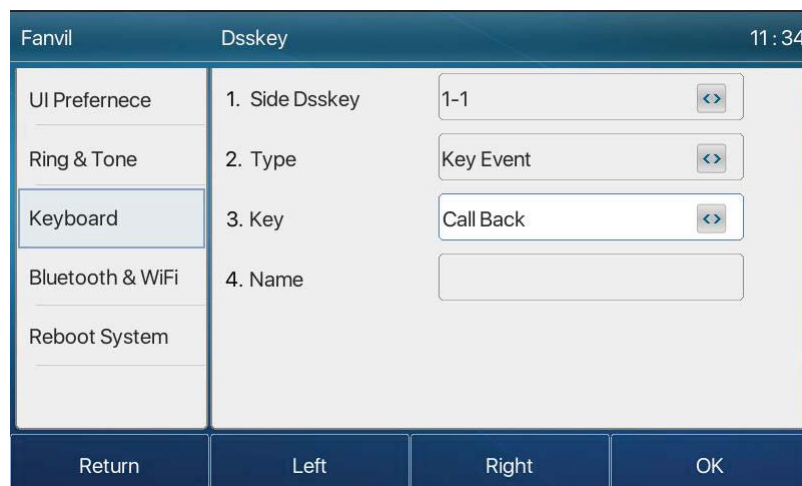


Picture 25 - Web page to start auto-answering

9.7 Call Back

The user can dial back the number of the last call. If there is no call history, press the **[Callback]** button and the phone will say "can't process".

- Set the callback key through the phone interface:
Under standby, press **[Menu]** >> **[Basic Settings]** >> **[Keyboard Settings]** >> **[Function key]** or **[Keyboard Settings]** >> **[Soft function key]** choose to set up the function keys, key type, type selection function name select callback function, input the callback key name, press **[OK]** key to save.



Picture 26 - Set the callback key on the phone

- Set the callback key through the web interface:
Log in the phone page, enter the [Function Key] >> [Side Key] or [Function Key] >> [Function Key] page, select the function Key, set the type as the function Key, and set the subtype as the callback, as shown in the figure:

Key	Type	Name	Value	Subtype	Line	PickUp Number	Icon Color
F 1	Line			None	Fanvil@SIP1		Default Green
F 2	Key Event			Call Back	SIP2		Default Green
F 3	Line			None	SIP3		Default Green
F 4	Line			None	SIP4		Default Green
F 5	Line			None	SIP5		Default Green
F 6	Line			None	SIP6		Default Green
F 7	Key Event			MWI	AUTO		Default Green
F 8	Key Event			Headset	AUTO		Default Green
F 9	None			None	AUTO		Default Green
F 10	None			None	AUTO		Default Green
F 11	None			None	AUTO		Default Green

Picture 27 - Set the callback key on the web page

9.8 Mute

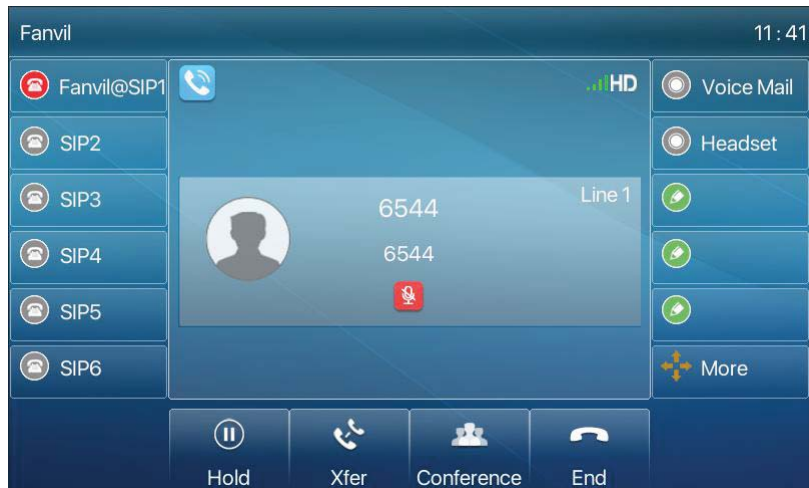
You can turn on mute mode during a call and turn off the microphone so that the local voice is not heard. Normally, mute mode is automatically turned off at the end of a call. You can also turn on mute on any screen (such as the free screen) and mute the ringtone automatically when there is an incoming call.

Mute mode can be turned on in all call modes (handles, headphones or hands-free).

9.8.1 Mute the Call

- During the conversation, press the mute button on the phone: the mute button on the phone will turn on the red light.

Red mute icon is displayed in the call interface, as shown in the figure:



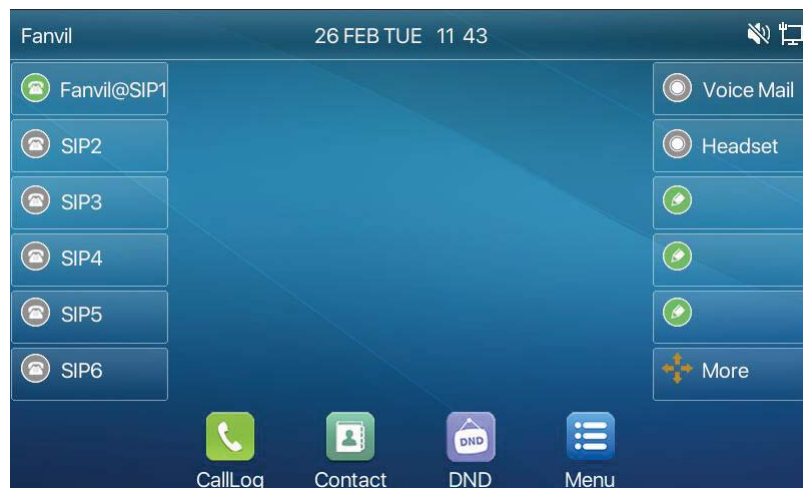
Picture 28 - Mute the call

- Cancel mute: press  cancel mute on the phone again. The mute icon is no longer displayed in the call screen. The red light is off by mute button.

9.8.2 Ringing Mute

- Mute: press the mute button when the phone is in standby mode: 

The top right corner of the phone shows the bell mute icon , Mute button red light is always on, when there is an incoming call, the phone will display the incoming call interface but will not ring.



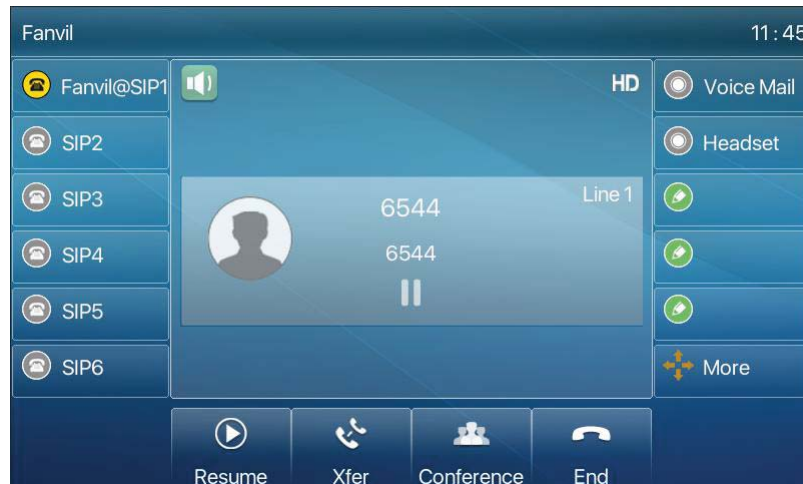
Picture 29 - Ringing mute

- Cancel ring tone mute: On the standby or incoming call screen, press the mute button again  or volume up  + cancel ring tone mute, no longer shows mute icon in

upper right corner after cancel . The phone mute icon is off

9.9 Call Hold/Resume

The user can press the **[Hold]** button to maintain the current call, and this button will become the **[Resume]** button, and the user can press the "resume" button to restore the call.



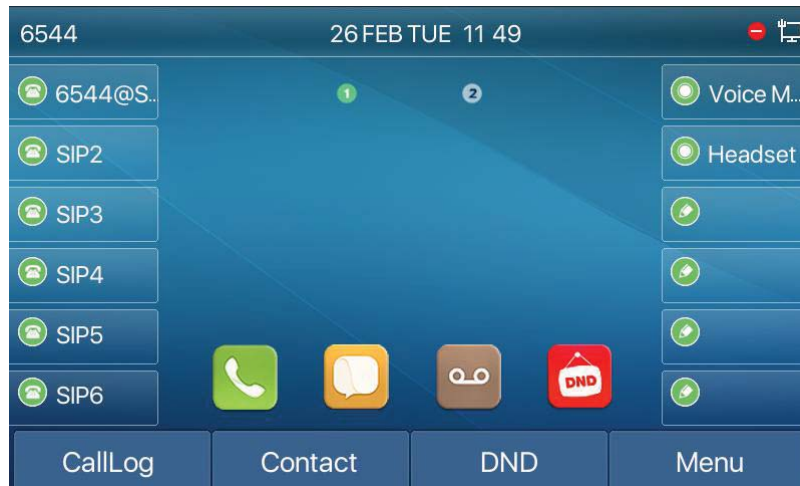
Picture 30 - Call hold interface

9.10 DND

User may enable Do-Not-Disturb (DND) feature on the device to reject incoming calls (including call waiting). The DND can be enabled on line basis.

Enable/Disable phone all lines DND, Methods the following :

- X7C Phone interface : Default standby mode .
 - 1) Press **[DND]** button to enter the DND setting interface, select line or phone to enable DND, the icon will become red  .
 - 2) Press **[DND]** button to enter the DND setting interface and disable DND, the icon will be become blue  .



Picture 31 - X7C Enable DND

- X7 Phone interface : Default standby mode. Pressing the "do not disturb" status bar will prompt the "do not disturb" icon. The color of the icon will not change when pressed.



Picture 32 - X7 Enable DND

If the user wishes to enable/disable the uninterrupted function on a specific line, the user can set the uninterrupted function on the page of configuring the line.

- 1) Press **[Menu]** >> **[Features]** >> **[Basic]** >> **[DND]** button, Enter the **[DND]** editing interface.
- 2) Click the left/right navigation button to select the line to adjust the mode and state of "do not disturb", and then press the **[OK]** button to save.
- 3) The user will see the DND icon turn red, and the sip-line has enabled the mode of "DND".

Fanvil		DND		11:57
Call Forward	1. DND Mode	Line	<>	
Auto Answer	2. DND Timer	Disabled	<>	
Call Waiting	3. Line	SIP1	<>	
Hot Line	4. State	Disabled	<>	
Basic				
Advanced				
Return	Left	Right	OK	

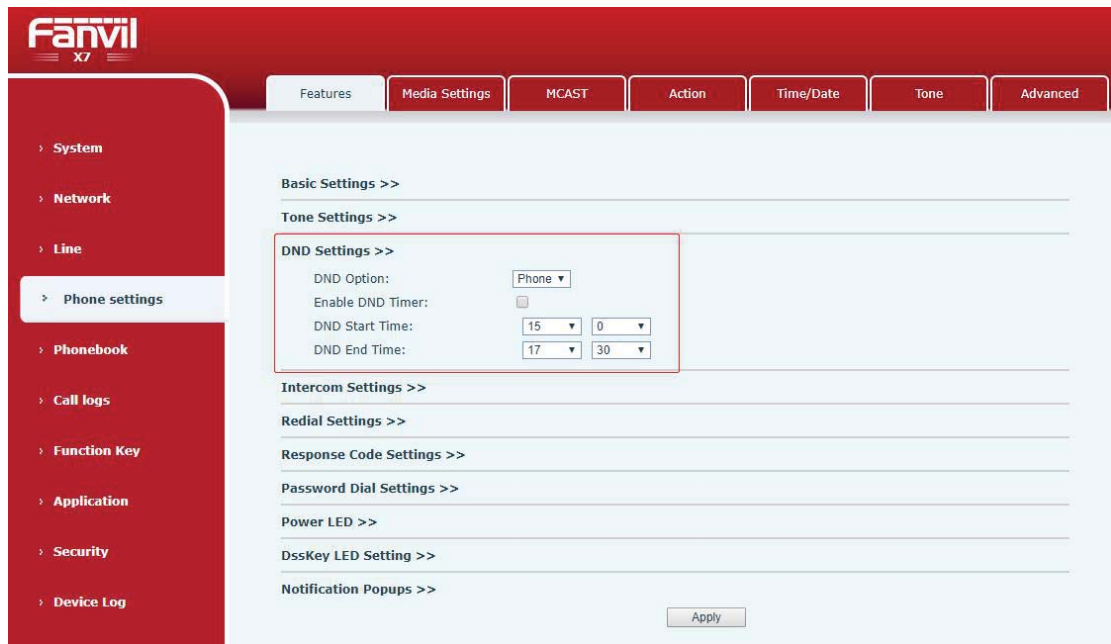
Picture 33 - DND setting interface

The user can also use the DND timer. After the setting, the DND function will automatically turn on and the DND icon will turn red in the time range.

Fanvil		DND		11:59
Call Forward	1. DND Mode	Line	<>	
Auto Answer	2. DND Timer	Enabled	<>	
Call Waiting	3. DND Start Time	15:00		
Hot Line	4. DND End Time	17:30		
Basic	5. Line	SIP1	<>	
Advanced	6. State	Disabled	<>	
Return	Left	Right	OK	

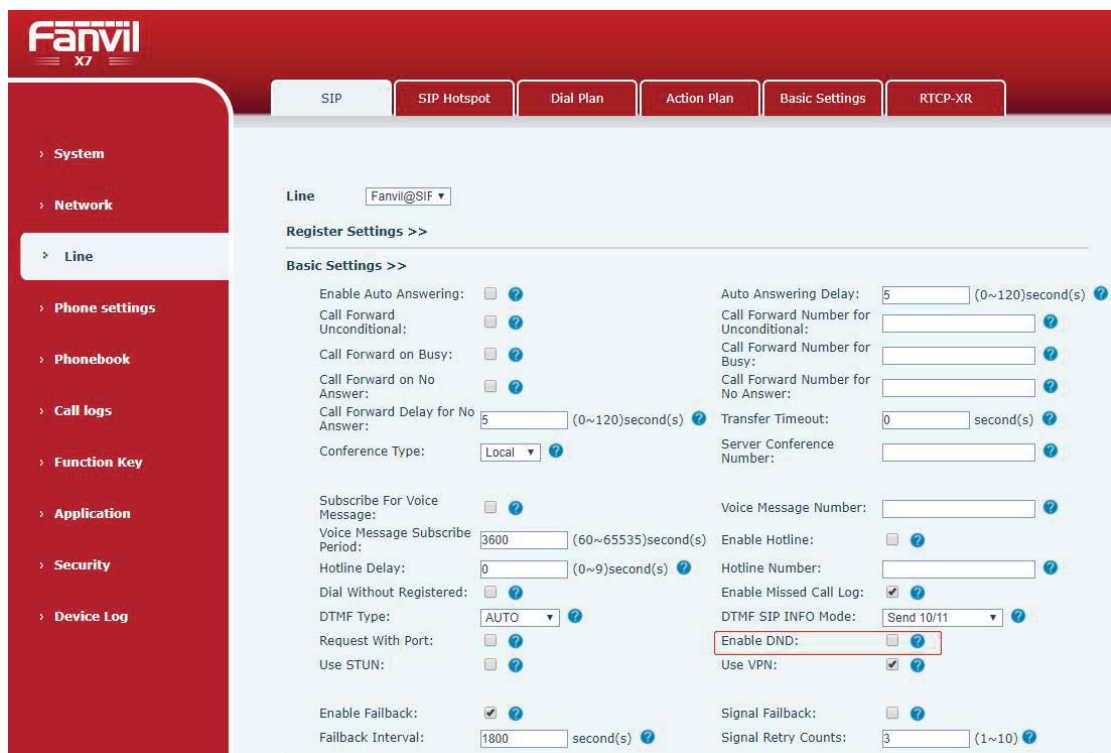
Picture 34 - DND timer

- WEB interface: Enter **[Phone setting]** >> **[Features]** >> **[DND settings]**, set the DND type (off, phone, line), and DND timing function.



Picture 35 - DND Settings

The user turns on the DND for a specific route on the web page: Enter [Line] >> [SIP], select a [Line] >> [Basic settings], and enable DND.



Picture 36 - Line DND

9.11 Call Forward

Call forward is also known as 'Call Divert' which is to divert the incoming call to a specific number based on the conditions and configurations. User can configure the call forward settings of each line.

There are three types,

- **Unconditional Call Forward** – Forward any incoming call to the configured number.
- **Call Forward on Busy** – When user is busy, the incoming call will be forwarded to the configured number.
- **Call Forward on No Answer** – When user does not answer the incoming call after the configured delay time, the incoming call will be forwarded to the configured number.
- Phone interface : Default standby mode
 - 1) Press **[Menu]** >> **[Features]** >> **[Call Forward]** button, select the line by up/down navigation key, press **[OK]** button to set call forward..



Picture 37 - Select the line to set up call forwarding

- 2) Select the call forward type by pressing the up/down navigation button. Click **[OK]** to configure call forwarding and delay time.



Picture 38 - Select call forward type

- 3) Select enable/disable by pressing the left/right navigation button.



Picture 39 – Enable the call forwarding and configure the call forwarding number

- 4) Browse the parameters set by the up/down navigation key and enter the required information. When finished, press the [OK] button to save the changes.
- WEB interface: Enter [Line] >> [SIP], Select a [Line] >> [Basic settings], and set the type, number and time of forward forwarding.

Picture 40 - Set call forward

9.12 Call Transfer

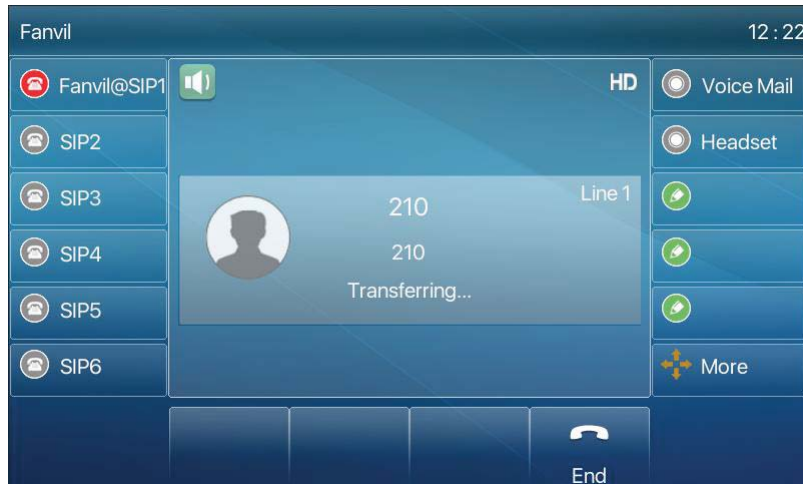
When the user is talking with a remote party and wish to transfer the call to another remote party, there are three way to transfer the call, blind transfer, attended transfer and Semi-Attended transfer.

- Blind transfer: Do not need to negotiate with the other side, directly transfer the call to the other side.
- Semi-Attended transfer.: When you hear the ring back, transfer the call to the other party.
- Attended transfer: When the caller answers the call, transfer the call to the caller.

Note ! For more transfer Settings, please refer to [12.6 Line >> Dial Plan](#).

9.12.1 Blind transfer

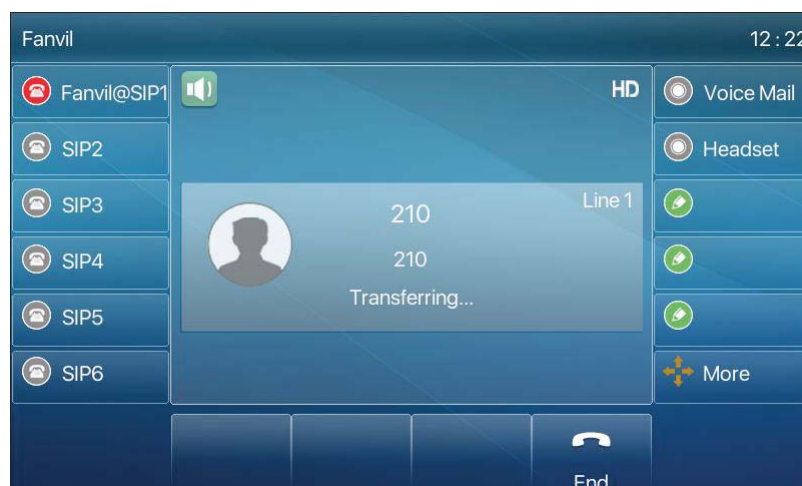
During the call, the user presses the function menu button **[Transfer]** or the transfer button on the phone , Enter the number to transfer or press the contact button or the history button to select the number, press the transfer key again or blind transfer  to a third party. After the third party rings, the phone will show that the transfer is successful and hang up.



Picture 41 - Transfer interface

9.12.2 Semi-Attended transfer

During the call, the user presses the function menu button [transfer] or the transfer button  on the phone to input the number to be transferred or press the contact button or the historical record button to select the number, and then press the call button. When the third party is not answered, press the transfer on the call interface to make the semi-attendance transfer or press the end button to cancel the semi-attendance transfer.

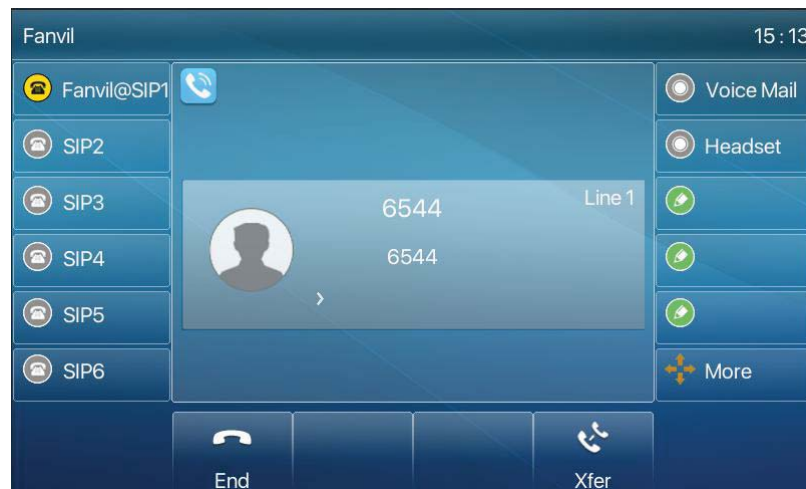


Picture 42 - Semi-Attended transfer

9.12.3 Attended transfer

Attendance transfer is also known as "courtesy mode", which is to transfer the call by calling the other party and waiting for the other party to answer the call.

Calling is the same procedure. In dual call mode, press the "transfer" button to transfer the first call to the second call.



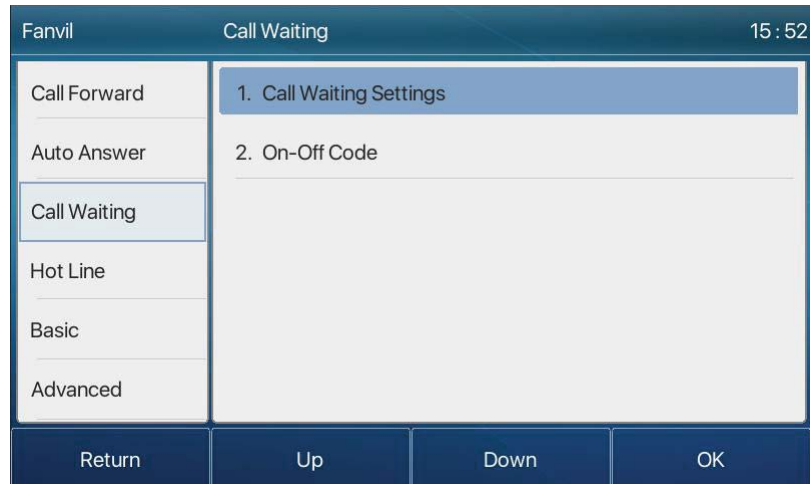
Picture 43 - Attended transfer

9.13 Call Waiting

- Enable call waiting: new calls can be accepted during a call.
- Disable call waiting: new calls will be automatically rejected and a busy tone will be prompted.
- Enable call waiting tone: when you receive a new call on the line, the tone will beep.

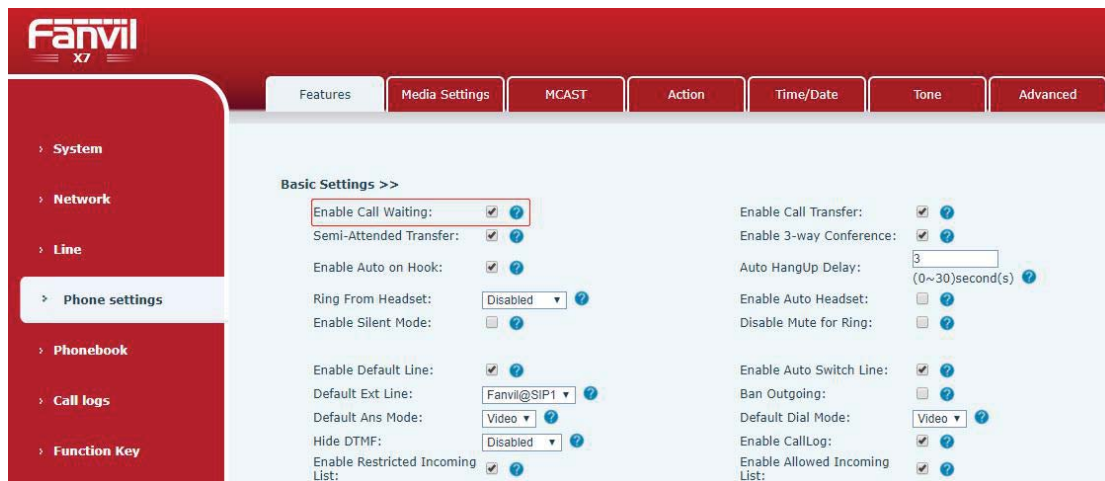
The user can enable/disable the call waiting function in the phone interface and the web interface.

- Phone interface: Press **[Menu]** >> **[Features]** >> **[Call waiting]**, the navigation key left/right button to enable/disable call waiting and call waiting tone. Press **[Menu]** >> **[Features]** >> **[Call waiting]**, the navigation key left/right button to enable/disable call waiting and call waiting tone.

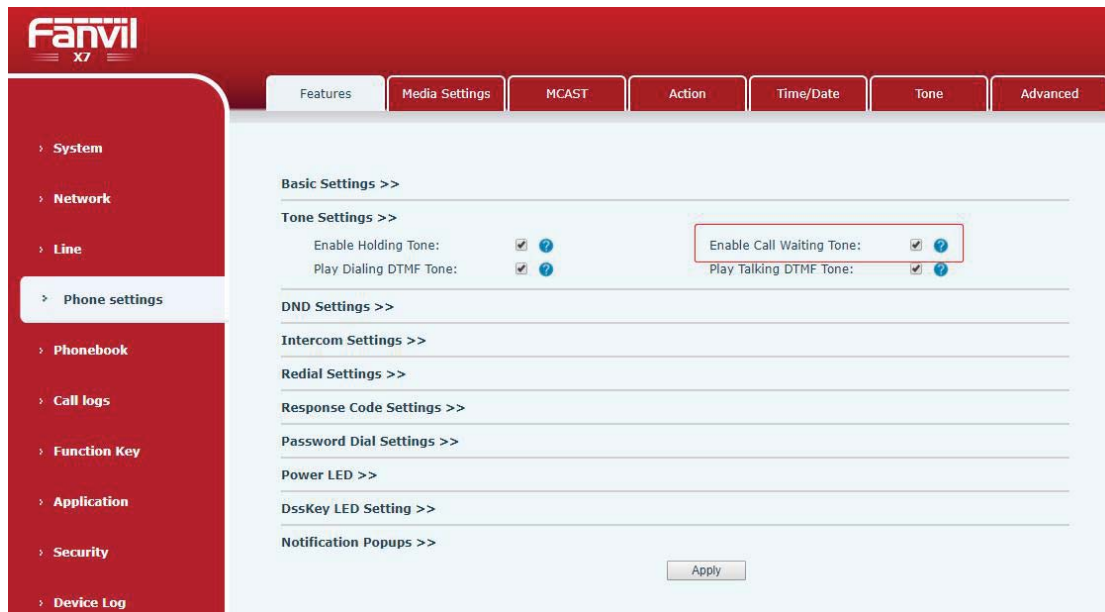


Picture 44 - Call waiting setting

- WEB interface: Enter **[Phone Settings]** >> **[Features]** >> **[Basic Settings]**, enable/disable call waiting and call waiting tone.



Picture 45 - Web call waiting setting

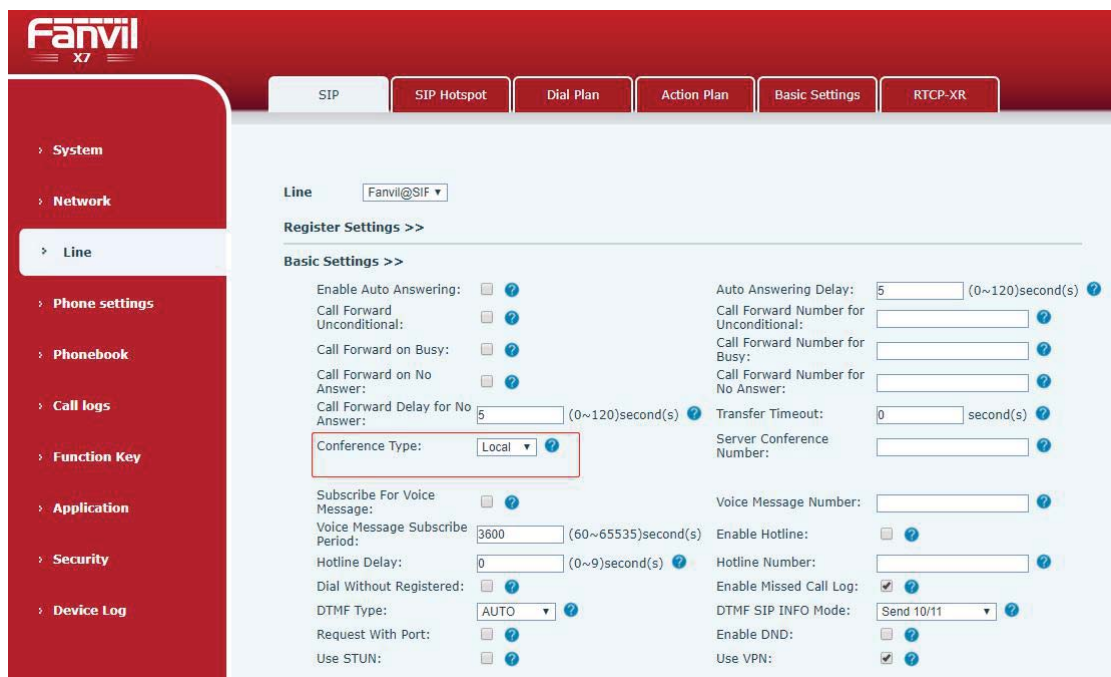


Picture 46 - Web call waiting tone setting

9.14 Conference

9.14.1 Local Conference

To conduct local conference, the user needs to log in the webpage and enter [Line] >> [SIP] >> [Basic settings]. The meeting mode is set as local (the default is local mode), as shown in the figure:



Picture 47 - Local conference setting

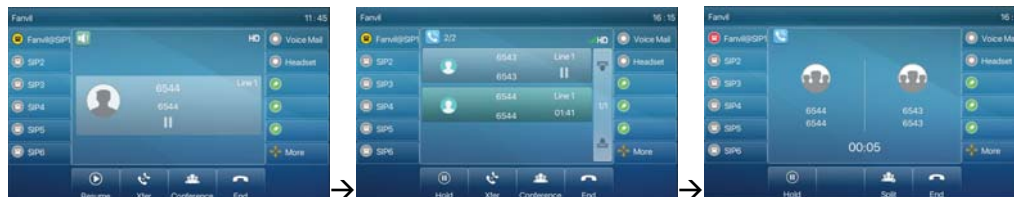
Two ways to create a local conference:

- 1) The device has two channels of communication. Press the conference button on the call interface. When selecting the conference number, select the other number that already exists.



Picture 48 - Local conference (1)

- 2) If the device has a call all the way, press the conference key in the call interface, enter the number to join the meeting and press the call; After the opposite end is answered, press the conference button again to set up the local tripartite conference:



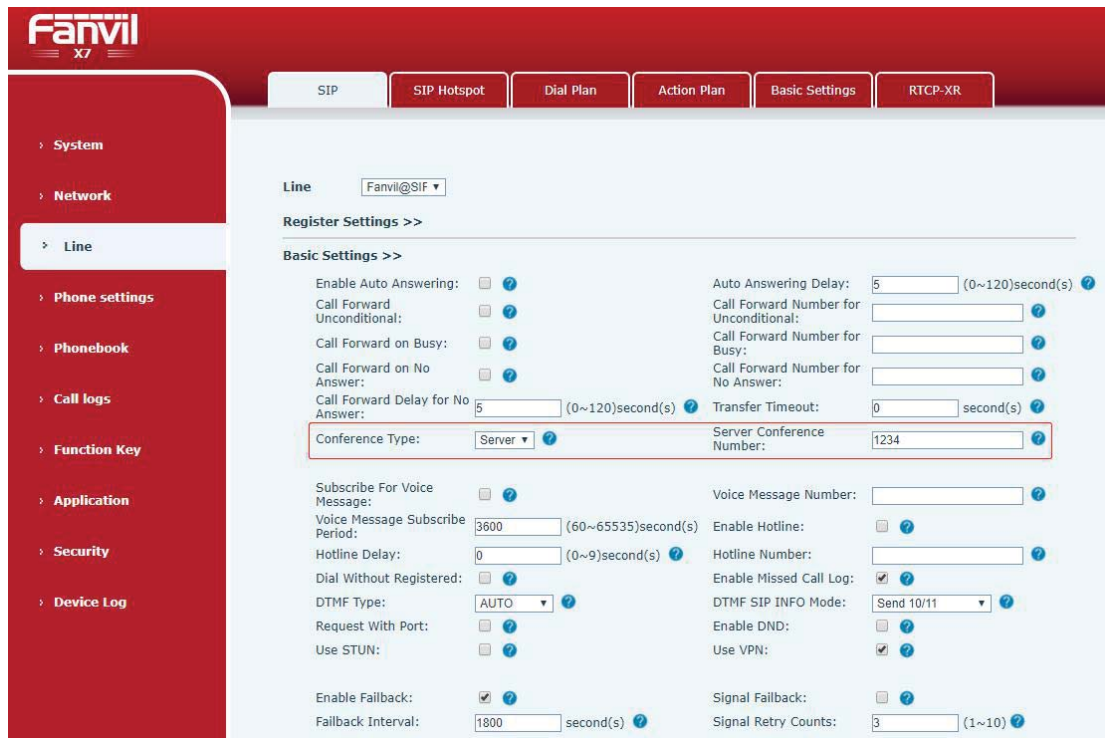
Picture 49 - Local conference (2)

Note: During the conference, press the split button to split the conference and press the end button to end the call.

9.14.2 Network Conference

Users need server support for network conference.

Log in the web page, enter [Line] >> [SIP] >> [Basic settings], set the conference mode as server mode (default is local mode), set the server conference room number (please consult your system administrator), as shown in the figure:



Picture 50 - Network conference

Method to join a network conference:

- Multi-party call number of network conference room and enter the password then all enter the conference room.
- The two phones have established common calls. Press the conference button to invite new members to the conference. Follow the voice prompt to operate.

Note: the upper limit of the number of participants in the network conference varies according to the server.

9.15 Call Park

Call Park requires server support. Consult your system administrator for support.

When you are on the call, if it is not convenient to answer the phone at this time, you can press the configured park button to hold the call; After the Call Park is successful, you can resume the call by pressing the configured park button on other devices.

Set the call park button:

- Phone interface: long press a function key to enter the function key Settings interface, or through the [Menu] >> [Basic Settings] >> [Keyboard] >> [DSS Key Settings] enter the function keys function key Settings interface, key function key type as memory and subtypes to call park, reside values for the server calls park

number, set up corresponding SIP lines.

- WEB interface: log in the phone page, enter the **[Function Key]** >> **[Function Key]** page, select a DSSkey, set the function key type as memory key, the subtype as call park, and the value as the call park number of the server, and set the corresponding SIP line.

Picture 51 - Phone set call park

Key	Type	Name	Value	Subtype	Line	PickUp Number	Icon Color
F 1	Line			None	AUTO		Default Green
F 2	Memory Key		1234	Call Park	SIP2		Default Green
F 3	Line			None	SIP3		Default Green
F 4	Line			None	SIP4		Default Green
F 5	Line			None	SIP5		Default Green
F 6	Line			None	SIP6		Default Green
F 7	Key Event			MWI	AUTO		Default Green
F 8	Key Event			Headset	AUTO		Default Green
F 9	None			None	AUTO		Default Green
F 10	None			None	AUTO		Default Green
F 11	None			None	AUTO		Default Green

Picture 52 - WEB set call park

9.16 Pick Up

Pick up requires server support. Consult your system administrator for support.

You can use the Pick Up function to answer incoming calls from other users. The phone can pick up incoming calls by configuring DSSkey for BLF and setting the Pick Up code.

Phone interface: press **[Menu]** >> **[Basic Settings]** >> **[Keyboard]** >> **[DSS Key Settings]**, select the function key to set.

- Set the line, function key type as memory key, subtype as BLF/NEW CALL, set subscription number, and pick up code
- Other phones call the subscription number, and the opposite end is in the incoming ring.
- Press the DSS key to pick up the phone.
- The caller picks up the call and speaks to it.

WEB interface: Log in the phone webpage, enter the **[Function Key]** >> **[Function Key]** page, select a DSSkey, set the memory key type as memory key, the subtype as BLF/NEW CALL, and set the corresponding SIP line and pick up codes.

Picture 53 - Phone pick up setting

Key	Type	Name	Value	Subtype	Line	PickUp Number	Icon Color
F 1	Line			None	Fanvil@SIP1		Default Green
F 2	Memory Key		6543	BLF/NEW CAI	Fanvil@SIP1	1234	Default Green
F 3	Line			None	SIP3		Default Green
F 4	Line			None	SIP4		Default Green
F 5	Line			None	SIP5		Default Green
F 6	Line			None	SIP6		Default Green
F 7	Key Event			MWI	AUTO		Default Green
F 8	Key Event			Headset	AUTO		Default Green
F 9	None			None	AUTO		Default Green
F 10	None			None	AUTO		Default Green
F 11	None			None	AUTO		Default Green

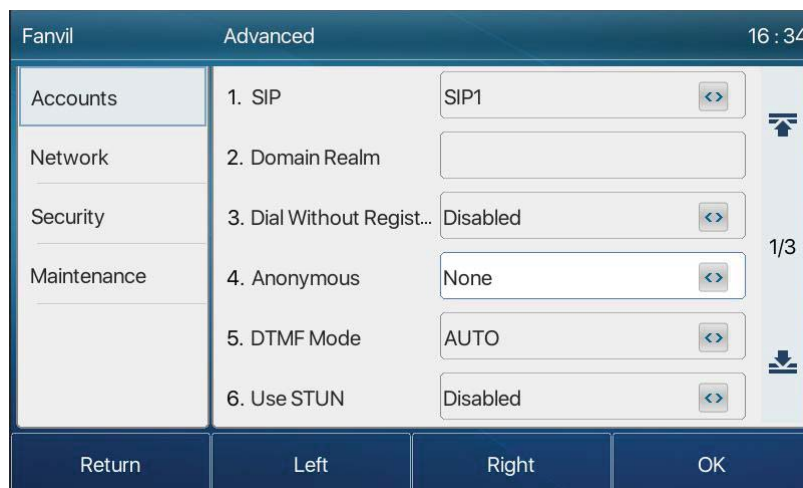
Picture 54 - WEB pick up setting

9.17 Anonymous Call

9.17.1 Anonymous Call

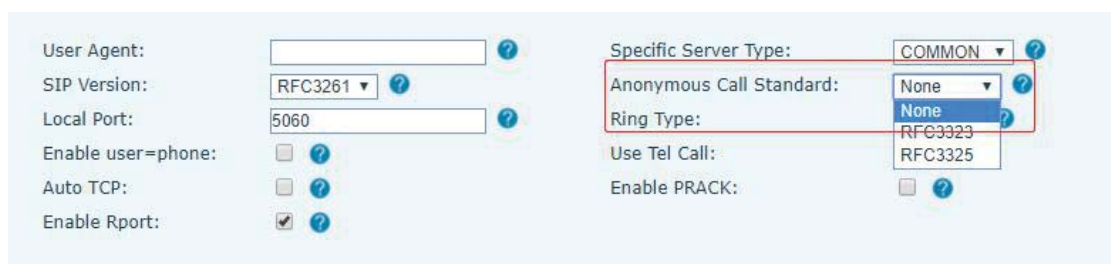
The phone can set up anonymous calls to hide the calling number and the calling name.

- You can see anonymity in the context of [Menu] >> [Advanced Settings] >> [Accounts] >> [Advanced].
- The default is none, which is off, and RFC3323 and RFC3325 are optional.
- Select any one to open the anonymous call.



Picture 55 - Enable anonymous call

- On the web page [Line] >> [SIP] >> [Advanced Settings] can also open anonymous calls.
- Setting to enable anonymous calls also corresponds to the SIP line. That is, the setting under the SIP1 page can only take effect on the SIP1 line.



Picture 56 - Enable Anonymous web page call

The following is a transcript of an anonymous call received by the phone.

Fanvil		All	16 : 40
All	anonymous	anonymous	26 Feb 16:39
In	6544	6544	26 Feb 16:38
Out	6544	6544	26 Feb 16:38
Miss	6544	6544	26 Feb 16:13
Forward	6543	6543	26 Feb 16:13
	6544	6544	26 Feb 15:54
Return		Option	Delete
		Dial	

Picture 57 - Anonymous call log

9.17.2 Ban Anonymous Call

The device can be set to prohibit anonymous calls, that is anonymous calls to the number will be directly rejected.

- In the phone **[Menu] >> [Features]>> [Basic] >> [Ban anonymous call]**, click to enter and all SIP lines will be displayed.
- Click Softkey **[Switch]** or **[<] [>]** to switch the SIP line and enable anonymous call.

Fanvil		Ban Anonymous Call	16 : 41
Call Forward	1. Line	SIP1	<>
Auto Answer	2. State	Disabled	<>
Call Waiting			
Hot Line			
Basic			
Advanced			
Return		Enter	Switch
		OK	

Picture 58 - Anonymous calls are not allowed on the phone

- On the web page **[Line] >> [SIP] >> [Advanced Settings]**, also can disable anonymous calls.
- The setup to disable anonymous calls also corresponds to the SIP line. That is, the setting under the SIP1 page can only take effect on the SIP1 line.