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# Snom320 User's Manual

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Ver2.0.2 november 07 2017  
Ver2.0.1 november 10 2016



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Thank you for purchasing Snom320.  
Make sure and acknowledge that you have read this manual before using Snom320.

Package Contents:

- 1.Main Case
- 2.Handset
- 3.Handset Cable
- 4.AC Power Adaptor
- 5.Quick Start Guide manual

Disclaimer

- \* This document is subject to change without prior notice.
- \* A possibility of noise, broken voice, or disconnection may occur because of customers' or our network environment. We cannot guarantee the quality of voice.
- \* The company assumes no responsibility on the difference of call or voice quality when the hearing acuity of individuals is concern.
- \* The company assumes no responsibility when it was used outside Japan.
- \* As for SNOM320 regular server maintenance, you may experience temporarily service stops without prior notice.
- \* The company assumes no responsibility when the customers caused the phone primary source of malfunction or breakdown.

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## **Maintenance/Cleaning**

Please use soft dry clothes to clean the device.

Don't use wet clothes.

Don't use volatile chemical like benzene, or thinner since they can damage the device.

If you want to use a chemical wipe, please read the cautionary notes before using it.

## **Connection Method:**

1. Connect the handset cord in the handset and connect it on the main body.
2. Plug the Ethernet (network) cable into the RJ 45 connector labeled "NET" and plug the other end into the network side to establish a data link.
3. The second RJ45 connector, labeled "PC", is for daisy-chaining further Ethernet devices without the need for a second Ethernet connection line.
4. Insert the plug of the power supply into the connector labeled "DC 5V" and hooks up the casing into the mains.
5. If you want to use a headset, connect it to the RJ audio jack on the bottom shell of the phone.

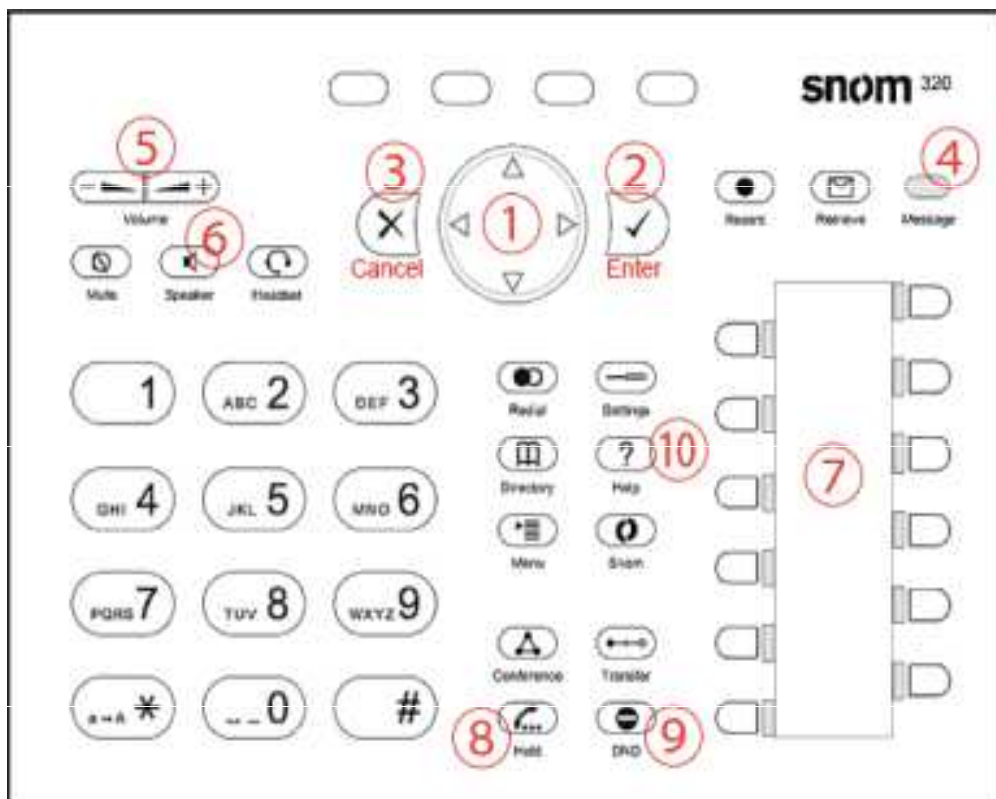
## **SNOM320**

SNOM320 is a phone device that can be used with our service. It cannot be used as a typical phone. The customer must subscribe to an Internet Service Provider to be able to use the device. Customer with no broadband router feature must provide a separate broadband router.

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## Keypad Familiarization

1. Navigation key – for navigation within the display menu and the phone book.
2. Enter key – to confirm actions, selections and inputs.  
*\*Always press the “ENTER Key” after inputting the numbers dialed*
3. Cancel Key – to cancel actions or inputs.
4. LED for MWI - (Message Waiting Indicator)
5. Volume Key – key to adjust the volume to (lower/higher)
6. Speaker - turns the speaker on/off
7. The 12 keys on the right with LEDs next to them are the programmable function keys onto which different functionalities can be mapped.
8. Hold Key – Key to Put call on hold/resume call
9. DND Key – Do not disturb key or call rejection key.
10. Help Key - Used for checking IP and MAC address of the device.



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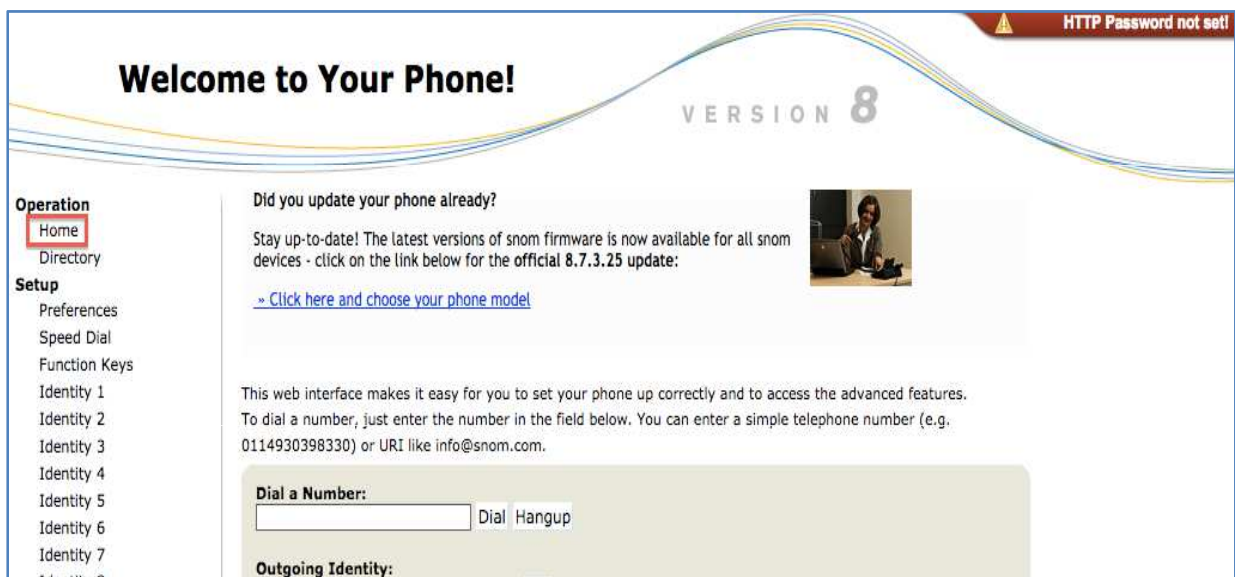
## General Settings

1. Verify device's IP Address. Press [**Help Key**] → Select [**Information**], [**IPAdr**] [**MAC**] and [**Version**] will appear. Select [**IPAdr**] and Press enter [**Check**] button.
2. Snom320 and the PC must be connected to the same network. Launch any web browser such as Internet Explorer. Enter IP Address observing the format below.

http: // (IP address)

Example: If the IP address is written as 192.168.001.002 , it should be entered as <http://192.168.1.2/>

\*After initializing the device that you access, you will still not be prompted to enter a username/password. In order to prevent unauthorized login, please set username and password  
If you are unsure of the password please contact our customer service representative.



3. On the [Setup] options, select [Identity 1].

Display Name and Account: Enter [**Unique ID**].

Password: Enter [**Registered Password**] (sent thru mail).

\* If you changed password, enter your new password.

Registrar and Outbound Proxy: Enter [**Login Server**].

Authentication Username: Enter [**Unique ID**].

Display Text for Idle Screen: Enter [**Extension Number**].

\* Click [**Apply**] to save changes.

\*Click [**Play ringer**] to confirm your ringing tone. You can also listen through your device, and make sure to check the device's volume.

4. On the [Setup] options, select [Identity 1], then click [NAT].

The screenshot shows a web interface for configuring NAT settings. On the left is a navigation menu with sections: **Operation** (Home, Directory, Setup, Preferences, Speed Dial, Function Keys, Identity 1, Identity 2, Identity 3, Identity 4, Action URL Settings, Advanced, Certificates, Software Update), **Status** (System Information, Log, SIP Trace, DNS Cache, Subscriptions, PCAP Trace, Memory, Settings), and **Manual**. The main content area has a warning icon and text: "Some settings are not yet stored permanently. Save View Changes ?". Below this are tabs for Login, SIP, NAT, and RTP. The NAT tab is active, showing "NAT Identity Settings:" with "Offer ICE:" set to "off". There are three input fields: "STUN server (IP-addr:port)", "STUN interval (seconds)", and "Keepalive interval (seconds)". The "Keepalive interval (seconds)" field contains the value "20". An "Apply" button is at the bottom of the settings area.

Keepalive Interval (seconds): Enter [20] seconds.

\*Click [Save] to save changes.

5. On the [Setup] options, select [Preferences].

Setting	Value
Webinterface Language:	English
Language:	English
Number Display Style:	Number
Tone Scheme:	Japan
MWI Notification:	Silent
MWI Dial Tone:	Stutter
Use Headset Device:	None
Use Backlight:	on
Dim after (in seconds):	20
U.S. date format (mm/dd):	on
24 Hour clock:	on
Show Clock:	on
U.S. dialnumber format:	on
Use Flash Plugin:	off
Show IVR digits during connected:	on
Global counter for Missed Calls:	on
Active Identity Scrolling:	on
Show identity index:	off
Show call status info:	off
Advertisement:	on
Call Forwarding:	Always
Target:	

Web Interface Language: Select [English].

Language: Select [English].

Number Display Style: Select [Number].

Tone Scheme: Select [Japan].

\*Click [Save] to save changes



6. On the [Setup] options, select [Function Keys]  
**Setting Key Allocations**

**Function Keys** VERSION 8

**Operation**  
 Home  
 Directory

**Setup**  
 Preferences  
 Speed Dial  
 Function Keys  
 Identity 1  
 Identity 2  
 Identity 3  
 Identity 4  
 Identity 5  
 Identity 6  
 Identity 7  
 Identity 8  
 Identity 9  
 Identity 10  
 Identity 11  
 Identity 12  
 Action URL Settings  
 Advanced  
 Certificates  
 Software Update

**Status**  
 System Information  
 Log  
 SIP Trace  
 DNS Cache  
 Subscriptions  
 PCAP Trace  
 Memory  
 Settings

**Manual**  
  
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**? Key Settings:**  
 On this page you can specify the settings for programmable keys on your snom phone. Use **Context** to specify the identity context for that key e.g. this identity will be used to subscribe for a particular extension. **Type** will select the actual functionality of a particular key. In the last argument field **Number**, the actual telephone number, sip url, dtmf sequence, action url or key type can be stored. Please refer to your phone manual for more details.

Change Active Id | Call Lists | Directory | Forward all

Prev. Outgoing ID

Menu | Menu | Redial

None | Next Outgoing ID

Context	Type	Number
RECORD	Key Event	Record
RETRIEVE	Key Event	Retrieve
REDIAL	Key Event	Redial
HELP	Key Event	Help
SNOM	Key Event	None
CONFERENCE	Key Event	Conference
TRANSFER	DTMF	#9
HOLD	Key Event	Hold
DND	Key Event	DND
DIRECTORY	Key Event	Directory
MENU	Key Event	None

Active | Line | P7 | P8 | P9 | P10

Menu Function keys:

HELP Number: Select [**Help**]

TRANSFER Type: Select [**DTMF**]

TRANSFER Number: Select [**#9**]

\*Click [**Save**] to save changes

7. On the [Setup] options, select [Advanced]

**Advanced Settings** VERSION 8

**Operation**  
Home  
Directory  
**Setup**  
Preferences  
Speed Dial  
Function Keys  
Identity 1  
Identity 2  
Identity 3  
Identity 4  
Action URL Settings  
**Advanced**  
Certificates  
Software Update  
**Status**  
System Information  
Log  
SIP Trace  
DNS Cache  
Subscriptions  
PCAP Trace  
Memory  
Settings

**Warning:** Some settings are not yet stored permanently. [Save](#) [View Changes](#) ?

**Network** Behavior Audio SIP/RTP QoS/Security Update

**Network:**  
DHCP:  on  off ?  
DHCP ignore list:  ?  
IP address:  ?  
Netmask:  ?  
Host Name:  ?  
IP Gateway:  ?

**DNS:**  
Domain:  ?  
DNS Server 1:  ?  
DNS Server 2:  ?

**Time:**  
NTP Time Server:  ?  
NTP Refresh Time (sec):  ?  
Timezone:  ?

NTP Time Server: Enter **[ntp.jst.mfeed.ad.jp]**.

NTP Refresh Time (sec): Enter **[3600]**

Timezone: **Select preferred time zone**

\* Click **[Save]** to save changes.

On the [Setup] options, select [Advanced], then click [Audio].

The screenshot shows the 'Advanced Settings' interface for a Snom VoIP phone. The page title is 'Advanced Settings' and the version is 'VERSION 8'. A warning message at the top states: 'Some settings are not yet stored permanently. Save View Changes'. The left sidebar contains a navigation menu with sections: 'Operation' (Home, Directory, Setup, Preferences, Speed Dial, Function Keys, Identity 1-4, Action URL Settings, Advanced, Certificates, Software Update), 'Status' (System Information, Log, SIP Trace, DNS Cache, Subscriptions, PCAP Trace, Memory, Settings), and 'Manual'. The 'Setup' and 'Advanced' options are highlighted with red boxes. The main content area has tabs for 'Network', 'Behavior', 'Audio', 'SIP/RTP', 'QoS/Security', and 'Update'. The 'Audio' tab is selected and highlighted with a red box. Below the tabs, a list of audio settings is shown, each with radio buttons for 'on' and 'off' and a help icon. The 'Call Waiting Indication' setting is highlighted with a red box and set to 'off'. Other settings include Mute Microphone, Disable Casing Speaker, DTMF echo on Speaker Phone, Keytones, Call Released Notification, Silence Suppression, Dialtone during Hold, Suppress ringtone during hold, Holding Reminder, Alert Info playback, Audio indication for Dialog Info pickup, Audio Device Indicator, Send silent RTP packets on mute, Casing Mic Volume (1-8), Handset Mic Volume (1-8), Headset Mic Volume (1-8), and Handsfree Mode. An 'Apply' button is at the bottom.

Setting	Value
Mute Microphone:	off
Disable Casing Speaker:	off
DTMF echo on Speaker Phone:	on
Keytones:	off
Call Released Notification:	off
Silence Suppression:	off
Dialtone during Hold:	on
Suppress ringtone during hold:	on
Holding Reminder:	on
Alert Info playback:	on
Audio indication for Dialog Info pickup:	off
Audio Device Indicator:	on
Send silent RTP packets on mute:	off
Call Waiting Indication:	off
Casing Mic Volume (1 - 8):	5
Handset Mic Volume (1 - 8):	5
Headset Mic Volume (1 - 8):	5
Handsfree Mode:	normal room

Call Waiting Indication: Select [OFF].

\* Click [Save] to save changes.

8. On the [Setup] options, select [Advanced], then click [SIP/RIP]

The screenshot shows the 'Advanced Settings' interface for a system, version 8. The left sidebar contains a navigation menu with categories: 'Operation' (Home, Directory, Setup, Preferences, Speed Dial, Function Keys, Identity 1-4, Action URL Settings, Certificates, Software Update), 'Status' (System Information, Log, SIP Trace, DNS Cache, Subscriptions, PCAP Trace, Memory, Settings), and 'Manual'. The 'Setup' and 'Advanced' items are highlighted with red boxes. The main content area is titled 'SIP/RTP' and features a warning icon and the message: 'Some settings are not yet stored permanently. Save View Changes ?'. Below this are tabs for 'Network', 'Behavior', 'Audio', 'SIP/RTP', 'QoS/Security', and 'Update'. The 'SIP/RTP' tab is active and contains the following settings:

Setting	Value	Help
Network identity (port):	<input type="text"/>	?
SIP T1 (ms):	500	?
Timer Support (RFC4028):	<input type="radio"/> on <input checked="" type="radio"/> off ?	?
SIP Session Timer (s):	3600	?
SIP Dirty Host TTL (s):	<input type="text"/>	?
SIP Max Forwards:	70	?
ENUM Suffix:	e164.arpa	?
Retry interval after failed registration (s):	300	?
Use user:phone:	<input checked="" type="radio"/> on <input type="radio"/> off ?	?
Publish Presence:	<input type="radio"/> on <input checked="" type="radio"/> off ?	?
Refer-To Brackets:	<input type="radio"/> on <input checked="" type="radio"/> off ?	?
Require PRACK:	<input checked="" type="radio"/> on <input type="radio"/> off ?	?
Send PRACK:	<input checked="" type="radio"/> on <input type="radio"/> off ?	?
Offer GRUU:	<input checked="" type="radio"/> on <input type="radio"/> off ?	?
Offer MPO:	<input type="radio"/> on <input checked="" type="radio"/> off ?	?
Use Outbound:	<input type="radio"/> on <input checked="" type="radio"/> off ?	?
Use SIP Compact Headers:	<input type="radio"/> on <input checked="" type="radio"/> off ?	?
Listen on SIP TCP port:	<input type="radio"/> on <input checked="" type="radio"/> off ?	?

Time Support (RFC4028): Select [OFF].

\* Click [Save] to save changes

9. On the [Setup] options, select [Advanced], then click [Update].

**Advanced Settings** VERSION 8

**Operation**

- Home
- Directory
- Setup**
- Preferences
- Speed Dial
- Function Keys
- Identity 1
- Identity 2
- Identity 3
- Identity 4
- Action URL Settings
- Advanced**
- Certificates
- Software Update

**Update:**

Update Policy: Never update, do not load settings ?

Setting URL: http://provisioning.snom.com/sr ?

Settings refresh timer: 0 ?

Subscribe Config:  on  off ?

PnP Config:  on  off ?

**Apply** **Reset** **Reboot**

Update Policy: Select [Never update, do not load settings].

Subscribe Config: Select [OFF].

PnP Config: Select [ON].

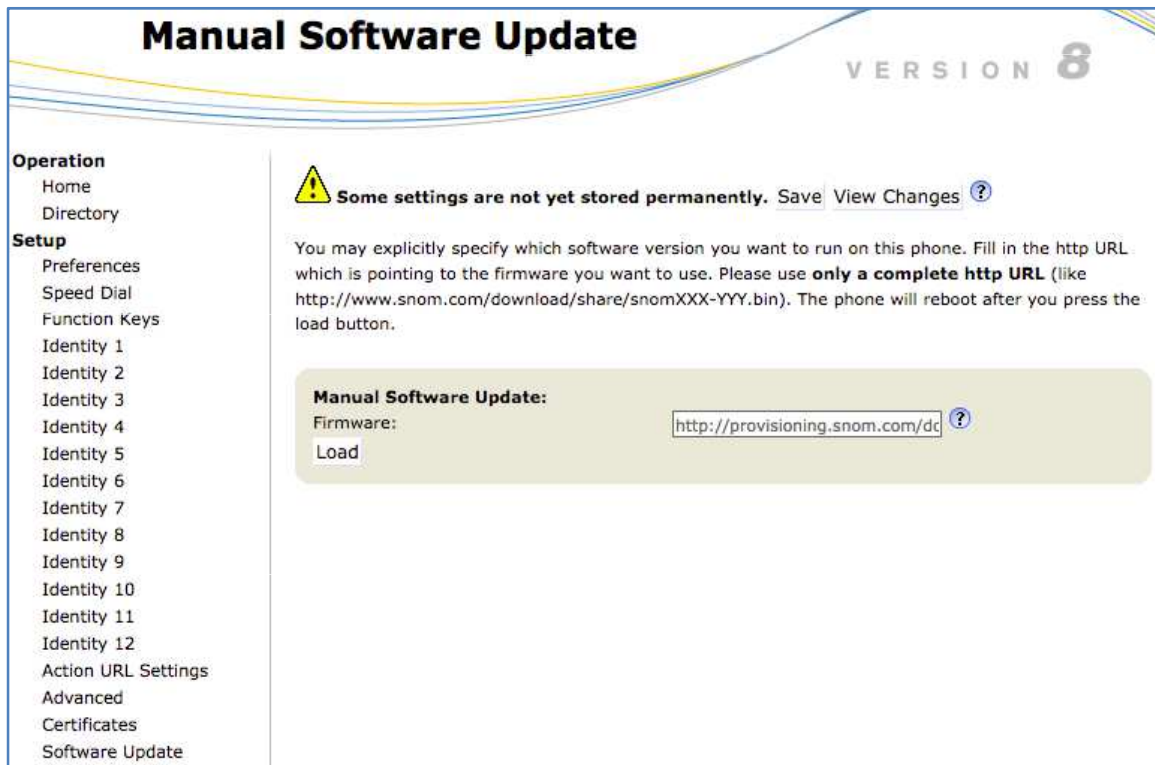
\* Click [Apply] to save changes.

\*Click [Reboot] to reboot the device to apply all changes.



10. On the [Setup] options, select [Software Update].

### Manual Software Update



**Firmware:** Enter [<http://downloads.snom.com/fw/snom320-8.4.35-SIP-f.bin>]

Click [**Load**] to load the firmware

\*It takes few minutes to load the firmware. Please do not unplug or disconnect the device during firmware loading.

\*The Phone is delivered with preinstalled software (firmware), which allows operating your phone flawlessly. If you require updating the phone's firmware please follow the instructions above.

[**Disconnected Network**] displayed during an outgoing call.

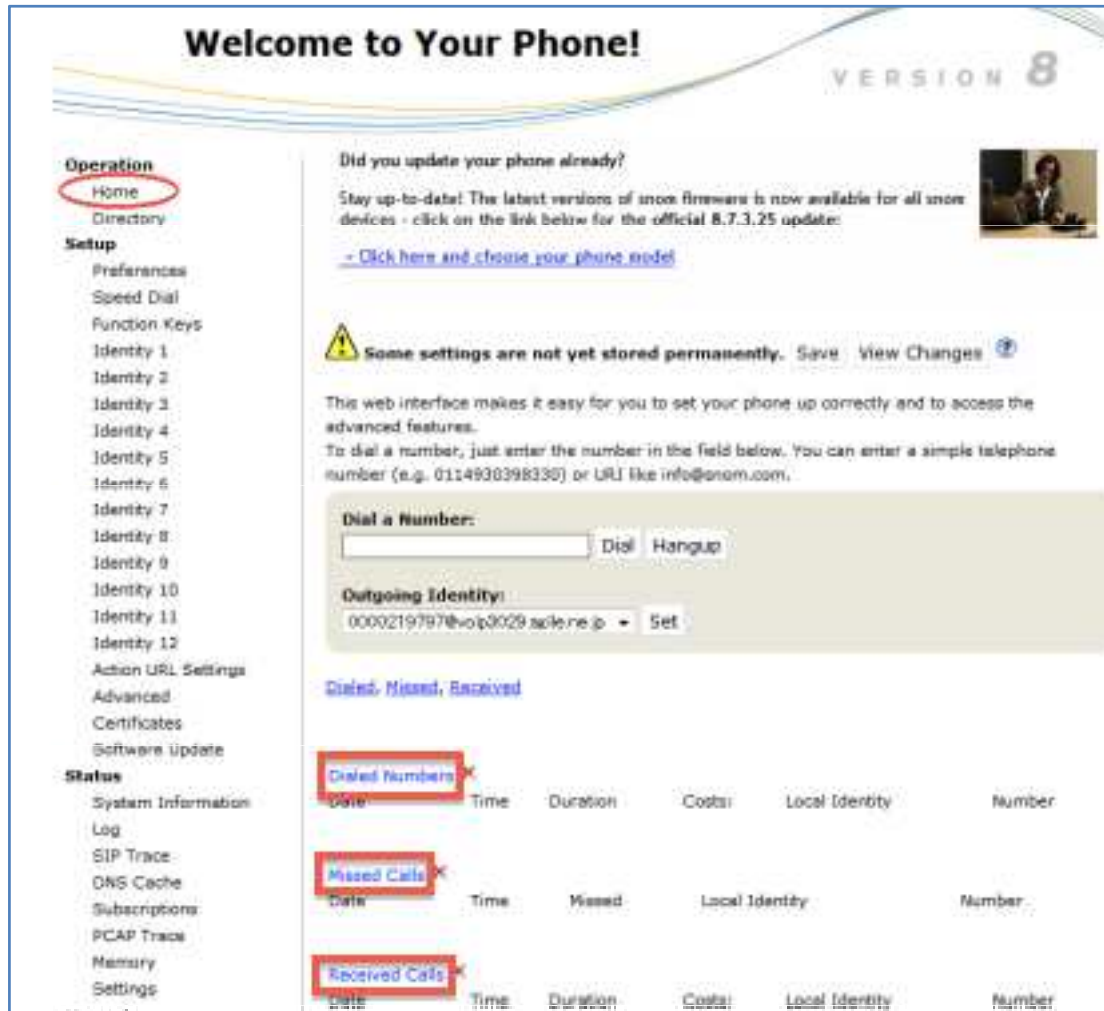
- Currently used version is not updated.
- IP address in the web browser and device does not match. IP address: [[http://IP address of the device/dummy.htm?settings=save&ip-\\_frag\\_enable=on](http://IP address of the device/dummy.htm?settings=save&ip-_frag_enable=on)]
- Firmware may not be updated.

\* Configuration of settings depends on the version of the device.

## VIEWING OF CALL HISTORY

11. On the [Operation] options, select [Home].

You can view the call history on the figure below.



Verify from Settings Screen

**Dialled Numbers:** List of previously called/dialed numbers.

**Missed Calls:** List of calls that is terminated before being answered by its intended recipient.

**Received Calls:** List of calls answered by the call recipient.

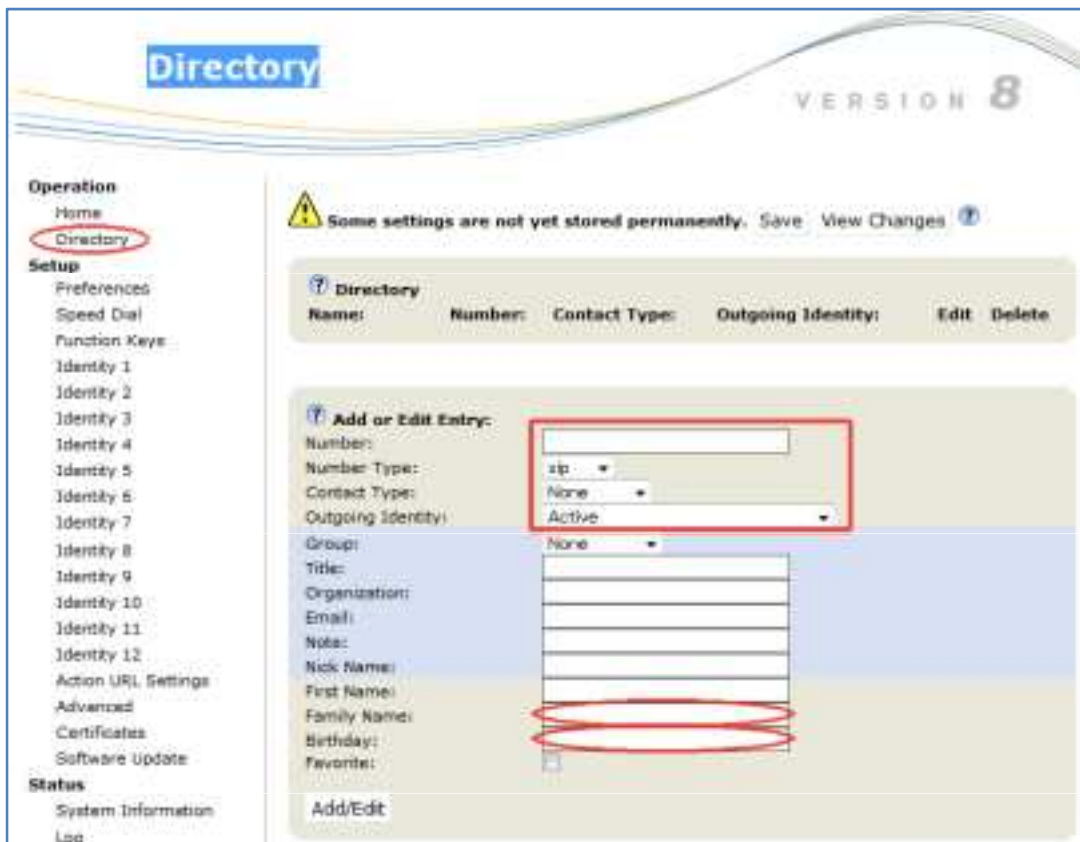
\* Calls can be made with just a click from the numbers on the list.

Verify from the device.

Press the second button to the left on the display menu of the phone or the "CHist" which means "Call History". Select among [Missed, Received, Dialed] on what to display on the screen.

## SETTING BLOCKED NUMBERS

11. On the [Operation] options, select [Directory].



Set blocked numbers in the [Add or Edit Entry] area.

Example:

**Name:** Type the name of the contact.

**Number:** Type the number @XXX.XXX.XXX.XXXX (Server IP address).

**Number Type:** Select [sip].

**Contact Type:** Select [Deny List].

**Outgoing Identity:** [Active]

Then, click [Add/Edit]. Configured number will be displayed. If you wish to delete a number, click [Delete].

\*The Server IP address depends on your account.

You can also reject calls from anonymous callers.

The number must be registered in the device to be set as an anonymous caller.

Example:

**Name:** Anonymous

**Number:** Anonymous @XXX.XXX.XXX.XXXX (Server IP address)



## SETTING PREFIX (184)

\*You can make an anonymous call if you put the prefix 184 in Japan.

12. On the [Setup] options, select [Identity 1], then click [SIP].

**Configuration Identity 1** VERSION 8

Operation  
Home  
Directory  
**Setup**  
Preferences  
Speed Dial  
Function Keys  
**Identity 1**  
Identity 2  
Identity 3  
Identity 4  
Action URL Settings  
Advanced  
Certificates  
Software Update

Status  
System Information  
Log  
SIP Trace  
DNS Cache  
Subscriptions  
PCAP Trace  
Memory  
Settings

Manual  
snom  
VoIP phones

⚠ Some settings are not yet stored permanently. Save View Changes ?

Login **SIP** NAT RTP

**SIP Identity Settings:**

Music on hold server:  ?

Send hold as inactive:  on  off ?

Alert Info URL:  ?

User picture URL:  ?

**Dial-Plan String:**  ?

ENUM Support:  on  off ?

Countrycode:  ?

Areacode:  ?

Proxy Require:  ?

Additional supported headers:  ?

Q-Value:  ?

Proposed Expiry:  ?

Auto Answer:  on  off ?

Long SIP-Contact (RFC3840):  on  off ?

Support broken Registrar:  on  off ?

Shared Line:  on  off ?

Publish Presence on bootup:  on  off ?

DTMF via SIP INFO:  ?

Send display name on INVITE:  on  off ?

Extension Monitoring Call Pickup List:  on  off ?

Extension Monitoring Call Pickup List URI:  ?

Contact List:  on  off ?

**Dial-Plan String:** Enter [ `^(0[0-9]*)$|sip:184¥1@¥d;phone=yes|` ]

\* You can set up the dial plan for this line here. With a dial plan, you can match user input (digits via keyboard) to specific actions like dialing, using a distinct outgoing identity, etc.

\* Use our service phone's extension number for transfers.

\* Click [Save] to save changes.

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## Safety Precautions

This manual contains precautions to assure user's safety while using this product. If the precautions are disregarded, the extent of consequences is presented below.



This indicates that ignoring or mishandling of this notice might result to death or serious injury to the person.



This indicates that ignoring or mishandling of this notice might result to harm to the person.



Immediately unplug the device from the power supply if there is a strange smell and smoke. Don't use the device and immediately contact the dealer for repair. This may cause fire or explosion.



Do not disassemble or modify. The device may malfunction, cause electric shock and fire.



Do not insert metal to the opening or drop the product. If in case a metal is inserted to the device, unplug the device and contact the dealer. The device may malfunction, cause electric shock and fire.



Do not pour water or any foreign object inside the device. If in case water or any foreign object is poured or inserted to the device, unplug the device and contact the dealer.



Do not touch the device when lightning occurs. This may cause electric shock.



Do not use in bathroom or shower room. The device may malfunction, cause electric shock and fire.



Don't place in a damp, dusty or direct sunlight. The device may malfunction, cause electric shock and fire.



This device is not waterproof. If in case water entered the device, unplug the device and contact the dealer.



Do not place near the kitchen table or humidifier, or near oil and moisture. The device may malfunction, cause electric shock and fire.



Do not place in humid and dusty area. The device may malfunction, cause electric shock and fire.



Do not place in extremely cold place or place with unstable temperature. It may cause explosion.



Do not place in unstable or shaky place. If the device falls it may collapse, it may cause injury or explosion.



Use after checking if foreign matters are attached to the speaker of the handset. Thumbtacks, pin, staple wires and other metallic object may cling to the magnet of the speaker so please be careful.

## Troubleshooting

Please check the troubleshooting procedure before requesting a repair. If the problem doesn't get resolved, please contact us.

<b>Problem</b>	<b>Solution</b>
General Failure	Plug and Unplug from the power source. (Do this for few times).  Wait for at least one minute before plugging the device.  If the problem is not resolved after doing this, please contact our customer support service.  Please provide your number and broadband products.

<b>PROBLEM</b>	<b>CAUSE</b>	<b>SOLUTION</b>
No Ringer Sound	Ethernet Cable is disconnected. AC Adapter is disconnected. Did you change the volume settings? Did you change the settings on the display?	Check the connection of the Ethernet cable. Check the connection of the AC Adapter. Adjust the volume on the volume button. Revert the changed settings. Disconnect the Ethernet cable. (Please reboot).
Call is interrupted by noise	Are there any abnormalities in the network environment?	Check your network environment.