

# **User Manual**

snom 300 | 320 | 360 | 370

deutsch

# english

español

français

italiano

www.snom.com

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# Welcome

Welcome to the user guide for the snom3x0 VoIP phones.

This manual describes the available features of the phone when it is connected to a SIP (RFC 3261) compliant PBX.

The functions and features available with this phone are designed for easy use in many different phone handling situations. The user manual describes the functions and features of the snom3x0 VoIP phones as they are programmed for delivery from the factory. There may be some differences in the way your phone is programmed. Please consult your system administrator if you need further information.

The latest version of this user guide can be downloaded from: <u>http://wiki.snom.com/Documentation</u>

● Note: The snom3x0 VoIP phones are IP phones that conform to the SIP standard (RFC 3261), and they can only be used within a network that supports this type of phone.

# Copyright

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# Warranty

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# **Declaration of conformity**

CE

Hereby, snom technology AG, declares that this phone is in conformity with the essential requirements and other relevant provisions of the European R&TTE directive 1999/5/EC.

Details to be found at: http://www.snom.com.

# Important User Information

## Safety instructions

#### Save these instructions. Read these safety instructions before use!

• Note: When using your phone or connected equipment, the following basic safety precautions should always be followed to reduce risk of fire, electrical shock, and other personal injury.

- Follow instructions in the equipment's user manual or other documentation.
- Always install equipment in a location and environment for which it is designed.
- For locally powered ac electrical outlet use: Only operate within the specified transformer power voltage indicated. If you are uncertain of the type of power supplied within the building, consult property management or your local power company.
- For locally powered AC electrical outlet: Avoid placing the phone's power cable where it can be exposed to mechanical pressure as this may damage the cable. If the power supply cord or plug is damaged, disconnect the product and contact qualified service personnel.
- Headsets used with this equipment must comply with EN/IEC 60950-1 and for Australia AS/NZS 60950.1-2003.
- Do not make any changes or modifications to equipment without seeking approval from the party responsible for compliance. Unauthorized changes or modifications could void warranties and the user's authority to operate the equipment.
- Do not use the phone to report a gas leak in the vicinity of the leak!
- Do not spill liquid of any kind on the product or use the equipment near water, for example, near a bathtub, washbowl, kitchen sink, wet basement or near a swimming pool.
- Do not insert any object into equipment slots that is not part of the product or auxiliary product.
- Do not disassemble the product. Contact a qualified service agency when service or repair work is required.
- Do not use a phone (other than cordless type) during an electrical storm.

# Disposal of the product

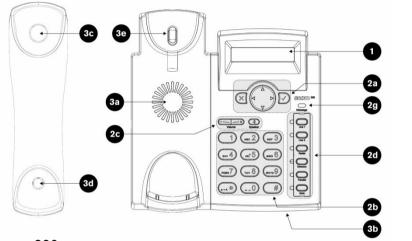
Your product should not be placed in municipal waste. Please check local regulations for disposal of electronic products.

# Overview

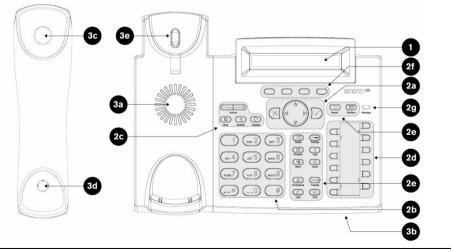
# Hardware Components

The main hardware components of your snom VoIP phone are the *display (1)*, the *keypad with LEDs (2)*, and the *audio devices (3)*.

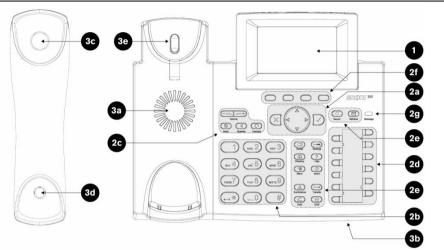
## snom 300



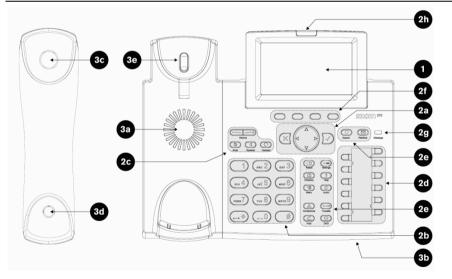
snom 320



#### snom 360



# snom 370



# (1) Display

Features	snom 300	snom 320	snom 360	snom 370
Tiltable	×	$\checkmark$ (0-45 degrees)		
Backlight	×	×	$\checkmark$	$\checkmark$
Туре	Two-line LCD monochrome	Two-line LCD monochrome	Graphical LCD monochrome	Graphical LCD <i>grayscale</i>
Characters / pixels	16 characters per line	24 characters per line	128 x 64 pixels	240 x 128 pixels

# (2) Keypad and LEDs

The keypad (including LEDs) is grouped in up to 8 functional units:

- a) Navigation Keys
- b) Alphanumeric Keys
- c) Audio Device Control Keys
- d) Free Function Keys with LEDs
- e) Preprogrammed Function Keys
- f) Context-Sensitive Function Keys
- g) Message LED
- h) Call Indication LED

Each unit is explained in the following subchapters in detail.

## (2a) Navigation Keys

Use the navigation keys to navigate in the display menus and confirm and cancel actions.

snom 300 - snom 320 - snom 360 - snom 370							
Cancel	Up	Down	Left	Right	Confirm		
$\mathbf{X}$					$\checkmark$		

## (2b) Alphanumeric Keys

Use the alphanumeric keys to enter numbers, letters and special characters. Depending on the selected input mode (see page 54) you can enter digits, lower / upper case or special characters.

Input mode	snom 300 - snom 320 - snom 360 - snom 370				
		(ABC 2)	DEF 3		
Digits	1	2	3		
Upper case	Special characters <sup>1</sup>	ABC2	DEF3		
Lower case		abc2	def3		
	( <sub>вні</sub> <b>4</b> )	5	(MNO 6)		
Digits	4	5	6		
Upper case	GHI4	JKL5	MNO6		
Lower case	ghi4	jkl5	mno6		
	PQRS 7	(TUV 8)	(wxyz		
Digits	7	8	9		
Upper case	PQRS7\$	TUV8	WXYZ9		
Lower case	pqrs7\$	tuv8	wxyz9		
		( <b>0</b> )			
Digits		0			
Lower / Upper case		"space","_","0"			

# (2c) Audio Device Control Keys

Use the audio device control keys to perform the following actions depending on your phone type:

snom 300		snom 320 - snom 360 - snom 370			
Volume	Vo	Adjusts the volume	see page 33		
Speaker	<b>■</b> Speaker	Toggles handsfree mode.	see page 71		
	Redial	Redials a number.	see page 62		
	Q Headset	Toggles headset mode.	see page 71		
	D Mute	Mutes / unmutes the microphone.	see page 72		

## (2d) Free Function Keys

Free Function Keys are programmable keys which can be used for various functionalities (see page 39). If not otherwise stated the adjacent LED will light when the assigned functionality is turned on.

s	nom 300		snom 320 - snom 360 - snom 370					
						Label	LED7	D P7
	$\bigcirc$	P1	P1	$\Box$	LED1	Label		
LED1	L1					Label	LED8	D P8
	$\bigcirc$	P2	P2	$\square$	LED2	Label		
LED2	L2					Label	LED9	D P9
	$\bigcirc$	P3	P3		LED3	Label		
LED3	Redial					Label	LED10	D P10
	$\bigcirc$	P4	P4		LED4	Label		
LED4	Directory					Label	LED11	D P11
	$\bigcirc$	P5	P5		LED5	Label		
LED5	Transfer					Label	LED12	D P12
	$\bigcirc$	P6	P6		LED6	Label		
LED6	Mute						I	

## (2e) Preprogrammed Function Keys

The preprogrammed function keys are preprogrammed as labeled. The following functions are mapped onto them:

snom 320 - snom 360 - snom 370					
Redial	Redials a number.	see page 62			
Directory	Calls up the phone directory.	see page 81			
Transfer	Transfers calls (if supported by your PBX).	see page 76			
Menu	<i>Version 6</i> : Calls up the main menu for configuration changes. <i>Version 7</i> : Not preprogrammed; reserved for future applications.	<i>Version 6</i> : see page 25			
Conference	Establishes a three-party conference call.	see page 77			
Hold	Places a call on "Hold" or resumes it.	see page 74			
Settings	<i>Version 6</i> : Calls up the "Maintenance" menu. <i>Version 7</i> : Calls up the "Settings" menu.	see page 25			
Record	Switches call recording on and off (if supported by your PBX).	see page 78			
? Help	Calls up information about the phones: IP address, MAC Address, and Firmware Version	see page 26			
snom	Not preprogrammed.				
	Switches "DND" mode on and off.	see page 67			
Retrieve	Retrieves messages from the voice mailbox (if supported by your PBX).	see page 87			

#### (2f) Context-Sensitive Function Keys

The snom 320, snom 360, and snom 370 have context-sensitive function keys (S1 to S4) below the display. The current function of these keys is indicated by the text or symbol in the display above each key.

The key context for the idle screen can be customized (see page 18).

For the complete mapping see page 91 "Mapping of Context-Sensitive Function Keys".

#### (2g) Message LED

The "Message LED" is primarily used to visually indicate new voice messages stored on the mailbox of your PBX, (see page 87 "Voice Mailbox").

When the following setting on your phone's web user interface is set to "ON", it can also be used to indicate the activities of your monitored extensions (Dialog State  $\rightarrow$  see page 89 "Extension Monitoring and Call Pickup") and to visually indicate missed calls.

■ Setup → Preferences → General Information → Message LED for Dialog State/Missed Calls: <0N>

Message Type	snom 300 - snom 320 – snom 360	snom 370
MWI	<b>yellow</b> (blinking)	red (blinking)
Incoming Call	<b>yellow</b> (blinking)	- (see 2h)
Missed Call	<b>yellow</b> (steady)	yellow (steady)
Dialog State	<b>yellow</b> (blinking)	yellow (blinking)
Info Message	-	-

#### (2h) Call Indication LED

The "Call Indication LED" is only available on the snom 370. It indicates incoming calls by a flashing red light.

# (3) Audio Devices

Your phone is equipped with two different audio devices:

- Casing speaker (3a) and microphone (3b)
- Handset speaker (3c), microphone (3d), and hook switch (3e)

Optionally a headset can be attached as an additional audio device:

Headset speaker and microphone

The audio Devices can be used in three operation modes:

- 1. *Handset mode* activates handset audio devices.
- 2. *Headset mode* activates headset audio devices.
- 3. *Handsfree mode* activates casing audio devices.

For information on switching audio operation modes, see page 71.

You can only use *one microphone* for talking, but you can choose up to *two speakers* for listening:

- Handset speaker / casing speaker or
- Headset speaker / casing speaker

For further details see page 73.

# **User Interfaces**

The hardware components *keypad* and *display* constitute the *phone user interface* which allows the user to execute all call operation tasks and basic configuration changes *directly on the phone*. Additionally, each phone has a *web user interface* to make calls remotely and to access all configuration settings.

In many instances, it is possible to use both the *phone user interface* and the *web user interface* to operate the phone and change settings; some, however, are only possible via a phone or web user interface.

Interface	Symbol	Tasks	Links
Phone user interface		<ul><li> All call functions</li><li> All basic settings</li></ul>	See page 22
Web user interface		<ul> <li>All basic and advanced settings</li> <li>No call functions except initiating &amp; terminating calls</li> </ul>	See page 26

# User and Administrator Mode

Your phone can be used in user or administrator mode. Administrator mode is the default setting with full configuration rights. For further details see page 46 / 47.

(i) Note: The default administrator password is "0000" (four zeros).

# Documentation

The following table shows all documentations available for snom phones.

Name	Contents	Where found	Format/ Language		
Quick Start Guide	Contents of delivery and basic set up of phone	<ul> <li>In phone package</li> </ul>	-		
User Manual	<ul><li>Phone user interface settings</li><li>Web user interface settings</li><li>Basic phone and call functions</li></ul>	• Download <sup>2</sup>	<ul> <li>PDF<sup>3</sup></li> <li>Multilingual</li> </ul>		
-	Note: For a complete set of user manuals refer to: <u>http://wiki.snom.com/Documentation</u>				

# **Getting Started**

# Phone Installation

Install your phone using the "Quick Start Guide" included in the package:

Installation Step	snom 300	snom 320	snom 360	snom 370
Check contents of package	A	(A)	A	A
Attach the footstand for horizontal placement	B	factory fitted	factory fitted	factory fitted
Connect the following components to your phone	C	B	B	B
We recommend this order:	<ol> <li>Handset via handset cord</li> <li>Optional: Expansion module<sup>4</sup></li> <li>Network (+ optional: PoE) via Ethernet cable</li> <li>Optional: Power supply (if PoE is not used)</li> <li>Optional: PC via 2<sup>nd</sup> Ethernet cable<sup>5</sup></li> <li>Optional: Headset<sup>5</sup></li> </ol>			s not used)
Adjust the display angle	Not applicable	Ô	Ô	Ô
Place the phone on an even, horizontal surface. Do not place it on carpets or other materials containing fibers that could block the air vents and cause overheating.	D	D	D	D

① Note: The phone can be powered either from the network (PoE: IEEE 802.3 af) or from a 5-V DC power adapter (for information on power consumption see page 97). Only use the 5-V DC power adapters listed below or an exact equivalent adapter approved by your local reseller.

#### snom Product Number

00001164

## **Power Rating**

10.5 W 90-264V AC / 5.25V DC

# Phone Initialization

After your phone has been powered up, the system boots up and performs the following steps:

# (1) Hardware Self-Test

A phone *hardware self-test* is run, all LEDs light up.

# (2) TFTP Update Screen

The *TFTP Update Screen* allows you to update the firmware along with setting the phone back to factory values.

snom 300	snom 320	snom 360	snom 370	
<b>&amp; Warning:</b> Use this option only when the phone is malfunctioning on reboot. All settings will be lost and the phone is set back to factory values!				
For TFTP update: Press any key: 3	For TFTP update: Press any key: 3	For TFTP update: Press any key: 3	For TFTP update. Press any key: SINCOM VolP phones © 2000-2007 snom technology	
□ Read the <u>instructions</u> <sup>5</sup> provided in our online knowledge database				

# (3A) Automatic Phone Initialization

The phone continues the initialization process by loading the last saved configuration.

snom 300	snom 320	snom 360	snom 370
System booting. Please wait	System is booting up. Please wait	System is booting up. Please wait	System is booting up. Please wait SINCOM VOIP phones © 2000-2007 snom technology

# (3A-a) DHCP Request

By default the phone attempts to contact a *DHCP<sup>e</sup> Server* in your network in order to obtain its valid network settings, e.g. IP address, netmask, gateway, DNS server, etc. The message "Sending DHCP request" is displayed briefly and the obtained IP address and the phone's MAC address are displayed.

snom 300	snom 320	snom 360	snom 370
IP-Adr:	IP-Adr:	IP-Adr:	IP-Adr:
192.168.X.X <sup>7</sup>	192.168.X.X	192.168.X.X	192.168.X.X
MAC:	MAC:	MAC:	MAC:
0004132XXXXX	0004132XXXXX	0004132XXXXX	0004132XXXXX

① Note: If your network does not use DHCP, proceed to chapter "(3M-a) Manual DHCP Setup" on page 14.

# (3A-b) Mass Deployment

A mechanism called *mass deployment* can be used to fully customize your phone automatically.

① **Note**: If your IP telephony system supports automatic initialization but any of the previously described steps have failed, inform your system administrator.

For further information regarding mass deployment read the <u>instructions</u><sup>8</sup> provided in our online knowledge database.

# (3M) Manual Phone Initialization

If your IP telephony system does not support automatic initialization, use the following instructions.

#### (3M-a) Manual DHCP Setup

If your phone cannot contact a DHCP Server for any reason, the message "Sending DHCP requests" is displayed permanently.

Action: Stop the phone from sending DHCP requests

snom 300	snom 320	snom 360	snom 370
Send. DHCP rqst	Sending DHCP requests	Sending DHCP requests	Sending DHCP requests
	Press	Cancel	

Result: Sending of DHCP requests will be stopped and you will be prompted:



No, the network does not use DHCP.

Press X for not using DHCP

**Result:** The phone will prompt you to enter the network settings manually.

& Warning: Using the wrong network parameters may result in inaccessibility of your phone and may also have an impact on your network performance! Please ask your network administrator! Yes, the network uses DHCP.

(1) **Note**: Try to fix the problem which caused DCHP failure and proceed.

Press v for using DHCP

**Result:** The phone reboots and attempts again to contact a DHCP server within your network to receive valid network settings.

#### (3M-b) Manual Basic Configuration

When mass deployment is not used or incomplete, you will be prompted to enter the basic configuration manually.

Phone User Interface Language

Action: The default phone user interface language is "English". Choose your preferred phone user interface language.

snom 300	snom 320	snom 360	snom 370
Firmware Versions <b>below 7</b> provide integrated multiple language support.			Not applicable
<ul> <li><b>Note</b>: Since Firmware Version 7 additional languages can only be provided via <u>mass deployment</u>.</li> <li>For further information read the <u>instructions</u><sup>9</sup> provided in our online knowledge database</li> </ul>			Integrated multiple language support
Sel. Language: English	Select Language ← English →	Select Language: English Suomi Frances Italiano	Language time English Suomi Francais Italiano
Use 💮 for navigation and select your preferred language from the list.			
Press v to confirm your choice.			

**Result:** The selected phone user interface language will be used for all following dialogs.

#### Tone Scheme (Dialtone)

This setting determines country-specific call progress tones, e.g. dial tone, busy signal, etc.

Action: Choose the country tone scheme (Australia ... USA)

snom 300	snom 320	snom 360	snom 370	
Sel. Dialtone: Australia	Select Dialtone ← Australia →	Select Dialtone: Australia China Denmark France	Dialtone time Australia China Denmark France 	
Use 💮 for navigation and select your country's tone scheme from the list.				
Press v to confirm your choice.				

**Result:** The tone scheme has been configured.

Time zone

This setting determines the correct display of the time including daylight saving time (DST) switching.

Action: Choose the time zone of your country / area (-10 ... +13)

snom 300	snom 320	snom 360	snom 370	
Select Time Zone -10: USA (Honolu	Select Time Zone ← -10: USA (Honolulu) →	Select Time Zone: -10: USA (Honolulu) -9: USA (Anchorage) -8: Canada (Vancouver) 	Time Zone time -10: USA (Honolulu) -9: USA (Anchorage) -8: Canada (Vancouver)	
Use () for navigation and select your country's time zone from the list.				
Press 🗸 to confirm your choice.				

Result: The time zone has been configured.

#### (3M-c) Logon Wizard

The "Logon Wizard" screen is shown when no extension (SIP identity) has been configured yet.

#### Action: Enter the Logon Wizard

snom 300	snom 320	snom 360	snom 370
This step is skipped.	This step is skipped.	Welcome! Press a key to log on.	time Welcome! Press a key to Jog on.
		Press	a key.

**Result:** The "Logon Wizard" will guide you through the manual configuration steps for setting up your first extension (SIP identity).

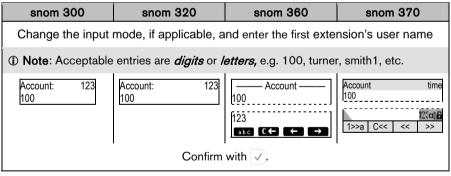
① Note: Please use the logon information provided by your system administrator or Internet Telephony Service Provider (ITSP).

Given For further information read the instructions<sup>10</sup> in our online knowledge database.

#### Account (SIP username)

This setting determines the *account* that is part of the SIP address format (SIP- URI<sup>11</sup>: "account@registrar").

Action: Enter the account (SIP username) of the first extension (SIP identity)



Result: The account of the first extension has been configured.

#### Registrar (SIP domain)

This setting determines the *registrar* that is part of the SIP address format (SIP- URI: "account@registrar").

Action: Enter the registrar (SIP domain) of the first extension (SIP identity)

snom 300	snom 320	snom 360	snom 370			
Change the input	Change the input mode, if applicable, and enter the first extension's registrar.					
	① Note: Acceptable entries are <i>domain names</i> or <i>IP addresses</i> , e.g. sip.company.com, 192.168.0.100, etc.					
Registrar: 192.168.0.100	Registrar: 123 192.168.0.100	Registrar 192.168.0.100 abc RBC C← ← →	Registrar         time           192.168.0.100			
	Confirm with v or abort with x					

Result: The registrar of the first extension has been configured.

#### User Manual

# Registration

The phone attempts to register the first extension (SIP identity) using the account/ registrar data provided by the automatic or manual initialization.

① Note: Should the IP PBX (SIP registrar) require an *authentication*, you will be prompted to enter the correct *password*. Make sure you are using the appropriate input mode or enter the password via the web user interface, see page 38.

If the password is not accepted by the SIP registrar, you will be asked a second time to enter the password. If this is also not accepted, the registration process will be terminated for security reasons.

The registration status is shown on the idle screen (see page 93). The complete status message sent by the SIP registrar in plain text can be evaluated on the web user interface:

■ Status → System Information → SIP Identity Status

#### Example:

Identity 1 Status: smith1@sip.company.com: **OK** or Identity 1 Status: 100@sip.company.com: **Authentication failed** or Identity 1 Status: 100@192.168.0.100: **Not found** 

#### Successful Registration

The first extension (SIP identity) has been registered successfully and will be used for outgoing calls. This is displayed on the idle screen as follows:

snom 300	snom 320	snom 360	snom 370
ext1 time	date ext1 time		date time
∡1			ext1

#### Unsuccessful Registration

If the first extension (SIP identity) could not be registered the displays shows:

snom 300	snom 320	snom 360	snom 370	
NR time ⊈ NR = Not registered	date NR time	Ext1	date time	
① Note: If the registration fails contact your network administrator.				

## Idle Screen

The idle screen is always shown on the display when there is no activity, i.e. no incoming/outgoing/active calls, etc. For further details see page 93.

#### Default Idle Screen

The default idle screen appears as shown below:

snom 300	snom 320	snom 360	snom 370
ext1 time ∡1	date ext1 time Reg CHist Dir Speed	ext1 date Reg C目	date time cxt1 Reg CHist Dir Speed

#### Customized Idle Screen

The idle screen can be customized.

#### Display Text

The display text determines the appearance of extensions (SIP identities) on the idle screen and will be displayed instead of the SIP URI:

snom 300	snom 320	snom 360	snom 370	
Setup → Identity X → Login → Display Text for Idle Screen: <your idle="" screen="" text=""></your>				
① Note: Text exceeding the maximum available space will be truncated.				

#### Context-Sensitive Function Keys

*Snom 320, 360, and 370 only:* The functionality of the context-sensitive keys (see page 8 and 91) for the idle screen can be changed:

snom 300	snom 320	snom 360	snom 370
Not supported	See page 91 for available functions: $\square$ Setup $\rightarrow$ Function Keys: S1S4. Default setting:		
	Reg C	CHist	Dir Speed

## XML Idle Screen

*snom 360 and 370 only:* The position of the analog or digital clock, SIP identities, etc. can be defined in XML files, one each for each SIP identity. By changing the identity for outgoing calls (see page 53) the predefined XML file will be loaded and the idle screen appearance will change accordingly.

① Note: The usage of this functionality requires a web server.

Given For further information read the instructions<sup>12</sup> in our online knowledge database.

snom 300	snom 320	snom 360	snom 370
Not supported	Not supported	☐ Setup → Identity > Login Information → 2 URL: <url>, e.g. http://myserver/scree</url>	XML Idle Screen

# **User Interfaces**

## Phone User Interface

#### Menu Structure

The phone user interface provides access to the following three-level menu structure (*Level 1*, *Level 2*, and *Level 3*) in order to perform changes to the phone configuration.

① Note: This menu structure only refers to firmware release 7!

snom 300	snom 320	snom 360 - snom 370
Call Forwarding	Call Forwarding	1 Display
* Off	S1 * Off	1 Contrast
Time	S2 Time	Change Contrast
Timeout Target / Call Fwd Time	Timeout Target / Call Fwd Time	2 Display Method Only Name / Only Number /
Always	S3 Always	Name + Number / Number +
Enter Always Target	Enter Always Target	Name / Show Full Contact
Busy	S4 Busy	3 Backlight
Enter Busy Target	Enter Busy Target	<b>*</b> On / Off / Always
Phone Behavior	Phone Behavior	2 Ring Tone
CWI	S1 CWI	1 Choose Reg / Ring Tone
<b>*</b> On / Off	<b>*</b> On / Off	3 Audio
FKeys	S4 FKeys	3 Audio 1 Headset Device
Select Function Key / Key	Select Function Key / Key	*Off / On
Type / Number	Type / Number	2 MWI Notification
General Settings	General Settings	Beep / Reminder /Silent
Contrast	S1 Contrast	Deep7 Reminder /Silem
Select Contrast	Select Contrast	4 Preferences
Lang	Select Contrast	1 Language
Change Language	Change Language	Select Language
Change Language	Change Language	2 Time Zone
Headset Device	Configuration	Select Time Zone
* Off / On	S1 Reg	3 Tone Scheme
	Presence	Select Tone Scheme by country
Volume Settings	Ringer	
Hand	S2 Reset	
Change Volume	Resets the phone	
Head	S3 Reboot	
Change Volume	Reboots the phone	
Speaker	S4 DHCP	
Change Volume	DHCP Setup	

snom 300	snom 320	snom 360 - snom 370
Other Settings	Headset Device	5 Identity
TimeZone	S1 *Off / S2 On	1 Outgoing Identity
Select Timezone		Select ID for outgoing calls
DialTone	Volume Settings	2 Reregister User
Select Dialtone	S1 Hand	Select ID for reregistering
	Change Volume	3 Edit User
Web Interface	S2 Head	Select ID → Edit "Account" →
Server	Change Volume	Edit "Registrar"
*HTTP & HTTPS / Off /	S4 Speaker	4 Logoff User
HTTP Only / HTTPS Only	Change Volume	Select ID for logging off
HTTP	Other Settings	5 Logoff All
HTTP Port	Other Settings	Log off all IDs?
HTTPS	S1 TimeZone	-
HTTPS Port	Select Timezone	6 Phone Behavior
VLAN Settings	S4 DialTone	1 Hide own outgoing ID
ID	Select Dialtone	On / <b>*</b> Off
Enter VLAN ID	Web Interface	2 Reject anonymous
	S1 Server	On / <b>*</b> Off
Priority	*HTTP & HTTPS / Off /	3 Auto Dial
Enter VLAN Priority	HTTP Only / HTTPS Only	<b>*</b> Off / after 2,5,10,15 Sec.
Reset	S2 HTTP	4 Auto Answer Indication
Resets VLAN Settings	HTTP Port	On / <b>*</b> Off
System Info	S4 HTTPS	5 Auto Answer Type
Network	HTTPS Port	Handsfree / Handset
Displays Network Info		6 Call Completion
Memory	VLAN Settings	On / <b>*</b> Off
Displays Memory Info	S1 ID	7 Number Guessing
Dioplaye memory mile	Enter VLAN ID	On/ <b>*</b> Off
Configuration	S2 Priority	8 Call Waiting
Reg → Select Reg / Edit	Enter VLAN Priority	On / Visual Only / Ringer / Off
Presence → Edit	S4 Reset	9 Deny All
Ringer → Edit	Resets VLAN Settings	On / <b>*</b> Off
Reset		
Resets the phone	System Info	7 Call Forwarding
Reboot	S1 Network	1 Call Forwarding event
Confirm to reboot the phone	Displays Network Info	Never / Always / When Busy /
DHCP	S4 Memory	On Timeout
DHCP Setup	Displays Memory Info	2 Call Forwarding time
Information		Enter Timeout (sec) "On Timeout"
IPAdr		3 Always target
Displays IP Address		Enter target number "Always"
MAC		4 Busy target
Displays MAC Address		Enter target number "When
Version		Busy"
		5 Timeout target
Displays Version	l	Enter target number "On
		Timeout"

User Interfaces • 23

#### snom 3x0 VoIP Phones

8 Network
1 DHCP
DHCP Setup
2 IP Address
Enter IP Address
3 Netmask
Enter Netmask
4 Hostname
Enter Hostname
5 IP Gateway
Enter IP Gateway
6 DNS Domain
Enter DNS Domain
7 DNS Server1
Enter DNS Server 1
8 DNS Server2
Enter DNS Server 2
9 NTP Server
Enter NTP Server
10 Webserver Type
<b>*</b> HTTP & HTTPS / Off / HTTP
Only / HTTPS Only
11 HTTP Admin
Enter HTTP Admin
12 HTTP Password
Enter HTTP Password
13 Settings Server
Enter Settings Server URL
14 VLAN ID (0-4095)
Enter VLAN Identity
15 VLAN Priority (0-7)
Enter VLAN Priority
16 Reset VLAN

#### snom 360 - snom 370

#### 9 Key Mapping

1 Select Key → Key Type → Number

#### 10 Maintenance

1 User / Administrator Mode

2 Net Info

Displays Network Info

3 Mem Info

Displays Memory Info

4 Reboot

Confirm to reboot the phone

5 Reset Values

Resets the configuration

#### **Settings Menu**

Action: Enter the phone's "Settings Menu" to perform manual changes to your phone configuration.

snom 300	snom 320	snom 360	snom 370
Press		Press Settings	

**Result:** The "Settings Menu" is shown on the display:

Call Forwarding ★Off	← Call Forwarding → ★Off TimeAlways Busy	1 2 Ringtone 3 Audio 4 Preferences	Settings time 1 Display 2 Ringtone 3 Audio 4 Preferences
-------------------------	---	---	--

Navigate through the different menu levels as follows:

snom 300	snom 320	snom 360	snom 370
Level 1 Level 2	← Level 1 → Level 2	1 <i>Level 1</i> 2 <i>Level 1</i>	Settings time 1 Level 1 2 Level 1
Move through <i>Level 1</i> by pressing	Move through Level 1 Level 2 Level 3 by pressing	Move through <i>Level 1 Level 2</i> by pressing	
Move through <i>Level 2 Level 3</i> by pressing	Enter <i>Level 2</i> by pressing	Enter <i>Level 2</i> by pressing	
	$\bigcirc_{S1} \bigcirc_{S2} \bigcirc_{S3} \bigcirc_{S4}$		
Enter <i>Level 2</i> by pressing ✓		Move through <i>Level 3</i> by pressing	
The	e currently active settir	ng is indicated as follo	ws:
Level 1 and L	Level 1 and Level 2: *active active active		active
Level 3 : First displayed menu item		<i>Level 3 :</i> First disp	played menu item
Press $\checkmark$ to save the changes or press $\times$ to abort.			

# Web User Interface

The symbol  $\blacksquare$  indicates the use of the web user interface to change settings or operate your phone. You can use the web browser of any computer attached to your network.

#### Access

#### Action: Look up your phone's IP address

snom 300	snom 320	snom 360	snom 370
Press		Press	
then v		(?) Help	
Information IPAdr	<ul> <li>← Information →</li> <li>IPAdr MAC Version</li> </ul>	About ——— snom 360-SIP-X.X.X IP Adr: 192.168.0.10	Info time snom 370-SIP-7.X.X IP Adr: 192.168.0.10
Press 🗸	Press IPAdr	MAC: 00041323XXXX	MAC: 00041326XXXX
IP Adr: 192.168.0.10	IP Adr: 192.168.0.10		

Result: The IP address of your phone is displayed, e.g. 192.168.0.10

Action: Access the web user interface of your phone

snom 300	snom 320	snom 360	snom 370
	P Address>" or " <ip addr<="" th=""><th>Enter the IP address in ress&gt;", e.g. "http://192."</th><th></th></ip>	Enter the IP address in ress>", e.g. "http://192."	

Result: The phone's web user interface page is displayed in the web browser window.

Page Headline						
<menu></menu>	< Ca	< Configuration Settings>				
Menu Level 1		tab tab tab				
Menu Level 2		section	n(s)			
	setting <value> ?<online help=""></online></value>					
	setting <value> ?<online help=""></online></value>					
		Save				

The *menu* is located on the left side; the *configuration of the settings* is done in the window on the right. Settings are grouped in *sections and/or tabs*.

For further details press the "?" icon next to the setting. You will be forwarded to the appropriate description

of the setting's function in our online knowledge database.

## **Phone Configuration Changes**

**& Warning:** Before you change the settings of the standard configuration, read about the possible impact of your changes by clicking on the "?" icon behind each setting to call up our online knowledge database or search it manually at

http://snom.com/wiki

Action: Navigate the web user interface, change configurations, and save changes

snom 300	snom 320	snom 360	snom 370	
The following syntax will be used throughout this manual:				
You have to save the configuration before the setting change takes effect by clicking on the Save button located at the bottom of each page $\$				
① Note: Some setting changes require a reboot of your phone (see page 51)				

# Phone Configuration

# **General Configuration Tasks**

#### Language

The default phone and web user interface language is "English". You can change the *language* for the phone user interface and the web user interface independently from each other.

snom 300	snom 320	snom 360	snom 370
<i>Firmware Versio</i> language support f	Not applicable		
only be provided via	<ul> <li>Note: Since Firmware Version 7 additional languages can only be provided via mass deployment<sup>16</sup>.</li> <li>For further information read the instructions provided in our online knowledge database.</li> </ul>		

#### Phone User Interface Language

Action: Change the language of the phone user interface

nom 360	snom 370			
Setup → Preferences → General Information → Language: <your language=""></your>				
or				
General Settings → Language     Preferences → Language				
or	n → Language			

**Result:** The language of the phone user interface has been changed.

#### Web User Interface Language

Action: Change the language of the web user interface

snom 300	snom 320	snom 360	snom 370		
$\blacksquare Setup \rightarrow Preferences \rightarrow General Information \rightarrow Web Interface Language: < Your$					
Language>					

**Result:** The language of the web user interface has been changed.

#### Time and Date

If the *time zone* has been set correctly, the correct time and date for your time zone will be displayed, automatically taking daylight saving time, if applicable, into consideration.

Action: Change the current time zone

snom 300	snom 320	snom 360	snom 370		
Setup → Advanced → Network → Time → Time zone: <your timezone=""> or</your>					
		Preferences	s → TimeZone		

Result: The current time zone has been changed and the correct time is displayed.

O Note: If the time (analog or digital clock) is not displayed at all, check the accessibility of the NTP time server:

Setup → Advanced → Network → Time → NTP Time Server: <NTP Time Server>

#### Keyboard Lock

You can lock the keypad of your phone when you are temporarily not using it. This function helps you to protect your phone from unauthorized use.

Dote: The following settings, if desired, must be made before lock activation:
 Setup → Preferences → Lock Keyboard → Emergency numbers: <1> <2> ...<X>
 Setup → Preferences → Lock Keyboard → PIN to unlock: <PIN>

#### Locking

Action: Activate the keyboard lock

snom 300	snom 320	snom 360	snom 370
F			

Result: The keyboard lock is activated. Only set emergency numbers can be dialed.

#### Unlocking

Action: Deactivate the keyboard lock

snom 300	snom 320	snom 360	snom 370
		disappears from the id t, you are prompted fo	

Result: The keyboard lock is deactivated.

# **Display Format**

The display format determines how extensions are shown to callers and phones being called.

Action: Change the display format

snom 300	snom 320	snom 360	snom 370		
⊟ Setup → Preferen	Setup → Preferences → General Information → Number Display Style:				
<full contact="">: <name>: <number> <name+number> <number+name></number+name></name+number></number></name></full>	e>: Only the SIP display name is displayed oer> Only the number is displayed e+Number> Name and number are displayed				
Example: The SIP-U as:	RI "John Smith" <sip:<sup>-</sip:<sup>	100@sip.company.cor	n> will be displayed		
<full contact="">: <name>: <number> <name+number> <number+name></number+name></name+number></number></name></full>	"John Smith" <sip:100@sip.company.com> John Smith 100 John Smith 100 100 John Smith</sip:100@sip.company.com>				
		C	r		
			Display Method		

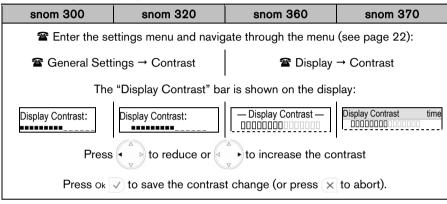
**Result:** The display format of extensions is changed.

# **Display Configuration Tasks**

# **Display Contrast**

You can adjust your phone's display contrast.

Action: Change the display contrast:



**Result:** The display contrast has been changed.

#### English

# **Backlight Mode**

You can adjust the display's backlight mode. By default the backlight mode is "On":

- *On*: Backlight is turned off or dimmed when the phone is inactive for approximately 20 seconds
  - o snom 360: Backlight is turned off completely.
  - o snom 370: Backlight is dimmed.
- Off. Backlight is turned off completely
- Always: Backlight is on permanently.

Action: Change the backlight mode.

snom 300	snom 320	snom 360	snom 370
Not applicable	Not applicable		gs menu (see page rough the menu (see 22):
		Tisplay - Backlight On	→ Backlight Backlight time On
			nt mode by pressing
		Press v to save th press x	<b>v</b>
		С	or
		lacktriang → F General Information <0n> / <0ff	$n \rightarrow Use Backlight:$

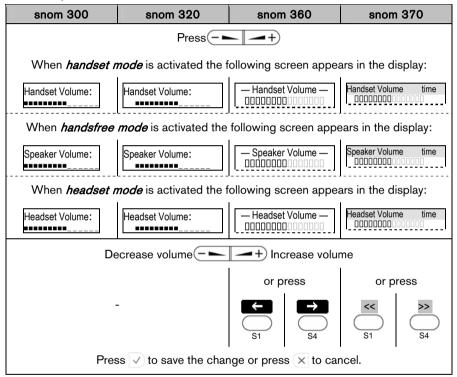
**Result:** The backlight mode has been changed.

# Audio Configuration Tasks

## Volume

You can adjust the volume of the currently used audio device when the phone is in "dialing" mode (see page 57) or during an active call (see page 71).

Action: Adjust the volume of the active audio device.



Result: The volume of the active audio device has been adjusted.

# **Headset Use**

Physically connect your headset (see page 11) and activate/deactivate it for use.

If you are using a wireless headset and the snom <u>wireless headset adapter</u><sup>17</sup>, the wireless mode is automatically activated.

# Activation

Action: Activate the headset mode before making or answering a call

snom 300	snom 320	snom 360	snom 370
Setup → Prefe	$\blacksquare$ Setup → Preferences → General Information → Use Headset Device: <on></on>		
	o	r	
Enter the settings menu (see page 25) and navigate through the menu (see page 22):		Press	
		Headset	

**Result:** Headset mode has been activated. This is indicated on the display as follows:

ext1 time F	Headset symbol is displayed during a call only	ate ⊕	date time ext1
----------------	--	-------	-------------------

# Deactivation

Action: Deactivate headset mode

Press Headset again O	
	11033

Result: Headset mode has been deactivated.

#### User Manual

# Ringtones

Ringtones are used to indicate incoming calls (see page 63).

#### Mapping

Different methods with different priorities (1 = highest priority, 5 = lowest priority) are used to assign a ringtone to an incoming call:

#### Only for advanced users or system administrators:

- SIP- Header "Alert-Info" refers to 10 built-in ringtones + Silent
  Setup → Preferences → Alert-Info Ringer →
  a) Alert Internal / External / Group Text: <Text used in "Alert-Info" to assign a ringtone to internal / external / group calls>
  b) Alert Internal / External / Group Ringer: <Ringer 1-10; Silent>

## For phone users:

- 3. Contact types in the directory (see page 81) can be mapped to → 10 built-in ringtones + Silent + 1 custom melody ringtone
  Setup → Preferences →
  Directory Ringtones: <Ringer 1-10; Silent; Custom Melody URL>
  Setup → Preferences →
  Custom Melody URL: < URL to a WAV file on a HTTP(S) server >
- 4. Each extension (SIP Identity) can be mapped to

  → 10 built-in ringtones + Silent + 1 custom melody ringtone
  □ Setup → Identity X → Login → Login Information →
  Ringtone: <Ringer 1-10; Silent; Custom Melody URL>
  □ Setup → Identity X → Login → Login Information →
  Custom Melody URL: <URL to a WAV file on a HTTP(S) server>
- Default ringtone can be mapped to *10 built-in ringtones+ Silent* 
   ⊆ Setup → Preference → Ringtone defaults → *Default Ringer:* <Ringer 1-10; Silent>

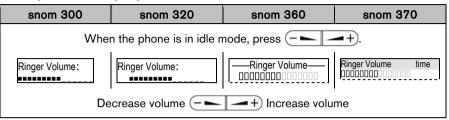
① Note: Users are recommended to map ringtones either to different extensions (4) or different contact types in the directory (3).

The default ringtone (5) should be played only when the phone cannot identify an incoming call as either (3) or (4).

Custom melody ringtones are mono WAV files using PCM at 8 kHz with 16 bit/sample (linear). Sample files are available for download at *http://snom.com/download/melodyX.wav (X=1-8)* 

## Volume

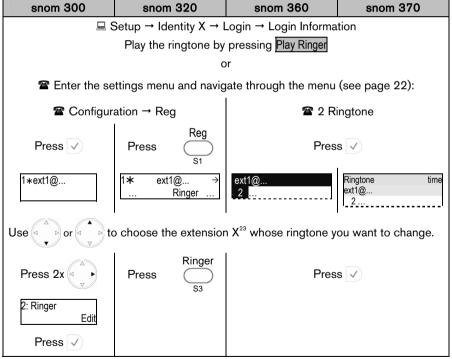
Action: Adjust the volume of the ringtone assigned to the extension (SIP identity) currently active for outgoing calls.



Result: The volume of the ringtone has been adjusted.

# Playback

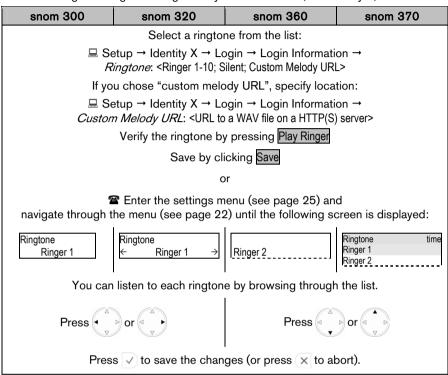
Action: Play back the ringtone assigned to your extension X (SIP identity X).



**Result:** The ringtone is played back.

#### Configuration

Action: Change the ringtone assigned to your extension X (SIP identity X).



**Result:** The ringtone has been changed; the new ringtone will be used for incoming call indication (see page 63) if no higher prioritized ringtone is assigned (see page 35).

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# SIP Identity Configuration Tasks

snom VoIP phones support multiple extensions (SIP identities). Each extension will act like a separate phone line in a conventional telephony system. As soon as the extensions have been registered (see page 19), calls can be placed from and received to these extensions.

snom 300	snom 320	snom 360	snom 370
<b>4</b> extensions (SIP Identity 14)		<b>12</b> extensions (SIP Identity 112)	

① Note: We recommend using the web user interface to perform the following configuration changes as it is more convenient:  $\square$  Setup  $\rightarrow$  Identity X.

Use only the logon information provided by your VoIP PBX administrator or Internet Telephony Service Provider (ITSP).

Given For further information read the instructions<sup>18</sup> in our online knowledge database.

# Adding / Editing Extensions

Action: Add a new extension X / Edit existing extensions X

snom 300	snom 320	snom 360	snom 370
Verify the status and availability of your extensions: $\blacksquare$ Status $\rightarrow$ System Information $\rightarrow$ SIP Identity Status			
Add / Edit the following identity information			
	Save your change	s by clicking Save	
① Note: This action requires a reboot of your phone (see page 29)			

**Result:** After the phone has rebooted a new extension has been added to your phone configuration which can be used to place or receive calls. See page 53.

Action: Block an extension (SIP identity) temporarily			
snom 300	snom 320	snom 360	snom 370
$\blacksquare \text{ Setup} \rightarrow \text{Identity X} \rightarrow \text{Login Tab} \rightarrow \text{Login Information} \rightarrow \text{Identity active: }$			

**Result:** The chosen extension (SIP identity) is blocked for both outgoing and incoming calls. All configuration settings are kept unchanged.

#### **Removing Extensions**

This functionality is called "hot desking" and is regularly used in office environments ("mobility centers") where not all the employees are in the office at the same time or not in the office for very long at all (see page 79).

#### Single Extension

Action: Remove single extension X (SIP Identity X)

snom 300	snom 320	snom 360	snom 370
⊑ Setup → Id	entity X → Login Tab -	→ Login Information→	Remove identity

**Result:** The selected extension will be removed from your phone configuration.

#### All Extensions

Action: Remove all SIP Identities

**& Warning:** Removing all extensions (SIP identities) will immediately unregister all currently configured extensions (SIP identities) and delete their configuration data from the phone. The phone can no longer be used and must be initialized anew.

snom 300	snom 300 snom 320		snom 370
⊑ Setup → Ider	itity X → Login Tab →	Login Information→ R	emove all identities

**Result:** All extensions are unregistered and removed from your phone configuration. The phone is placed out of operation and by default the logon wizard (see page 17) will be shown on the display.

This behavior can only be disabled via mass deployment<sup>19</sup>: logon\_wizard: OFF

# Function Key Configuration Tasks

Various functionalities can be mapped onto the free function keys Px (see page 7); the adjacent yellow LEDs show their current status.

snom 300	snom 320	snom 360	snom 370
<b>6</b> free function keys P1…P6	<b>12</b> fi	ee function keys P1	.P12
<b>①</b> Note: We recommend using the web user interface to program the free function keys as it is more convenient: $\blacksquare$ Setup $\rightarrow$ Function Keys $\rightarrow$ Px			

# Input fields

# Context

The default setting is <Active>, i.e., the functionality chosen under "Type" will be applied to any currently active extension (SIP identity) for outgoing calls (see page 53).

If a specific extension (SIP identity) is chosen from the pull down menu, the functionality under "Type" will be applied only to the chosen extension (SIP identity).

# Туре

The default setting is <Line>. When another setting is selected from the pull down menu "Types", that functionality will be applied to the extension (SIP identity) chosen as "Context". For further details see chapter "Key Types" below.

## Number

The default setting is <blank>. You can enter a number / HTTP(S) URL / SIP URI as required by "Type".

# Key Types

The free function key "Types" *Line, Shared Line, Extension, Park Orbit, Voice Recorder, DTMF, Push2Talk, Intercom, Action URL, Key Event, Speed Dial, None* are explained in the following subchapters.

Given For further information and examples<sup>20</sup> consult our online knowledge database

#### User Manual

#### Line

Dependencies:	•	Context: <sip identity=""> or <active></active></sip>
• - · · · · · · · · · · · · · · · · · ·	•	Number: blank>

**Description:** This is the default key function. It is used to indicate and accept incoming calls and allows placing active calls on hold or resuming them. It can also be used to make a call using a specific extension (SIP identity)

**Usage:** An incoming call is indicated by the blinking LED of the first available free function "Line" key, whose "Context" is set to the extension (SIP identity) being called:

- Press a "Line" key to accept the call, see page 63 / 64.
- Press a "Line" key again to place the call on hold, see page 74
- Press a "Line" key again to resume the call, see page 74

Making a call:

 Press a "Line" key in idle state to select the extension (SIP identity) set under "Context" as the outgoing extension for this one call; for permanent selection see page 53

#### Shared Line

① Note: This feature must be supported by your VoIP PBX (currently available for PBXnSIP, Sylantro and Broadsoft)

Dependencies:	•	Context: <sip identity=""></sip>
	•	Number: <bla resource="" sla="" uri=""></bla>

**Description:** This key function is used by the "Bridged or Shared Line Appearance (BLA or SLA)" feature which allows users to share SIP lines and also provides status monitoring of the shared line.

**Usage:** When a user places an outgoing call using such an appearance, all members belonging to that particular SLA group are notified of this usage and are blocked from using this line appearance until the line goes back to idle state or when the call is placed on hold.

Similarly all members of the SLA group are notified of an incoming call and the call can be picked up on a line appearance associated with the SLA extension.

SLA members can monitor the status of the bridged line via the LED adjacent to the free function "Shared Line" key:

- LED "on" indicates the line is in use
- LED "off" indicates an idle status.

Given For further information<sup>21</sup> consult our online knowledge database.

# Extension (formerly "Destination")

<ol> <li>Dependencies:</li> </ol>	•	Context: <sip identity=""></sip>
• - · · · · · · · · · · · · · · · · · ·	•	Number: <monitored extension=""></monitored>

**Description:** This key function allows you to monitor the status (idle, ringing, or busy) of other extensions (SIP accounts) within your VoIP telephony environment and to pick up unanswered calls to those extensions. Additionally the "Speed Dial" and "Manual Call Forwarding" functionality is provided by this key function.

## Usage:

• Extension Monitoring & Call Pickup: See the detailed description on page 89

① Note: Your VoIP PBX must support this function (RFC 4235 compliant)

- *Speed Dial Key*: Press an "Extension" key during idle state to dial the extension specified under "Number".
- *Manual Call Forwarding*: Press an "Extension" key to forward an incoming call to the extension specified under "Number" without answering it first.

# Park Orbit

① Note: Your VoIP PBX must support this feature; a valid park orbit extension (SIP account) is required.

Dependencies:	•	Context: <sip identity=""></sip>
	•	Number: <park (sip="" account)="" extension="" orbit=""></park>

**Description:** This key function allows you to park a call on one phone and continue the conversation from any other phone.

# Usage:

- *Call Parking*: Press a "Park Orbit" key to park an active call in the "park orbit" specified under "Number". The adjacent LED starts blinking on your phone (and on any other phones using the free function "Park Orbit" key).
- *Parked Call Pickup*: Press a "Park Orbit" key to pick up the parked call on any phone using this key function (adjacent LED is blinking). If several calls have been parked in the same "park orbit", the first or last call parked (depends on your VoIP PBX) can be picked.

English

#### Voice Recorder

① Note: Your VoIP PBX must support this feature; a valid voice recording extension (SIP account) is required.

Dependencies: •		Context: <sip identity=""></sip>
	•	Number: <voice (sip="" account)="" extension="" recorder=""></voice>

**Description:** This key function allows you to record a conversation during an active call as well as short memos or minutes of a meeting when the phone is idle.

#### Usage:

- Start Voice Recording: Press a "Voice Recorder" key once to start sending the audio stream to the "voice recorder extension (SIP account)" specified under "Number". The adjacent LED lights up and the audio stream is recorded on your VoIP PBX.
- *Stop Voice Recording*: Press the key again to stop recording. The adjacent LED is turned off.
- *Listen to voice recordings*: You can listen to the recorded audio stream by calling the "voice recorder extension (SIP account)" specified under "Number".

#### DTMF

caret "^". Each "^" adds a break of 100 ms)	① Dependencies:	<ul> <li>Context: <sip identity=""></sip></li> <li>Number: <dtmf sequence=""> (allowed digits: "0-9", "*", "#", "A-D" and flash: "!"; for adding breaks use the character caret "^". Each "^" adds a break of 100 ms)</dtmf></li> </ul>
---	-----------------	---

**Description:** This key function allows sending the specification of arbitrary key sequences via DTMF.

**Usage:** Press a "DTMF" key during an active call to send the key sequence specified under "Number" via DTMF.

## Push2Talk

(i) Note: Your VoIP PBX must support this function.

The following settings must have been configured in advance: Your phone:  $\blacksquare$  Setup  $\rightarrow$  Advanced  $\rightarrow$  Behavior  $\rightarrow$  *Enable Intercom*: <ON> Other phones:  $\blacksquare$  Setup  $\rightarrow$  Advanced  $\rightarrow$  Behavior  $\rightarrow$  *Auto Answer Policy*. <Always>

Dependencies:	•	Context: <sip identity=""> or <active></active></sip>
	•	Number: <extension></extension>

**Description:** Similarly to the "Intercom" function, users can make intercom calls. This feature is particularly useful for group announcements.

#### Usage:

- Enable Intercom mode: Press this key to connect your phone directly to the extension specified under "Number", if authentication has been set up properly. The adjacent LED lights up. The intercom call will remain active as long as the programmed key is pressed.
- *Disable Intercom mode*: The intercom call will be terminated as soon as the free function "Push2Talk" key is released. The adjacent LED will be turned off.

#### Intercom

Dependencies: Context: <SIP Identity>
Number: <extension>

**Description:** This key function enables the "Intercom" mode and is useful in an office environment as a quick access to connect to the operator or the secretary.

#### Usage:

- *Enable Intercom mode*: Press an "Intercom" key to connect your phone directly to the extension specified under "Number", if authentication has been set up properly. The adjacent LED lights up.
- *Disable Intercom mode*: Terminate the intercom call as usual (see page 59)

#### Action URL

• Num		Context: <active></active>
		<i>Number:</i> < HTTP URL>
		LED: inactive

**Description:** This key function allows you to send HTTP requests to a web server, e.g. you can set a status on the server or retrieve Minibrowser (see page 83) applications.

**Usage:** Press an "Action URL" key to send the HTTP URL specified under "Number" to the web server.

Given For further information<sup>22</sup> consult our online knowledge database.

#### Key Event

<ol> <li>Dependencies:</li> </ol>	•	Context: <sip identity=""> or <active></active></sip>
	•	Number: <key cut="" event="" short=""></key>

**Description:** Key events are predefined shortcuts to phone and call functions. See the complete mapping on page 93.

**Usage:** Press a "Key Event" key to call the predefined function of the shortcut specified under "Number".

#### Speed Dial

i) Dependencies:		Context: <sip identity=""> or <active></active></sip>	
©	•	Number: <extension></extension>	

**Description:** This key function allows you to speed up dialing numbers often used or hard to remember. As opposed to key type "Extension", this key type does not provide "Extension Monitoring & Call Pickup"

Usage: Press a "Speed Dial" key to call the extension specified under "Number".

None

**Description:** This key function provides no functionality.

# Maintenance Tasks

# Administrator Password

**& Warning:** You need to know the administrator password to return to administrator mode; otherwise you have to perform a reset to factory values! All current setting changes will be lost! Use the following URL to reset the phone: http://<IPAddress>/advanced.htm?reset=Reset

Action: Change the Administrator Password via Web user interface

snom 300	snom 320	snom 360	snom 370				
<ul> <li>□ Setup → Advanced → QoS/Security → Administrator Password: <your password=""></your></li> <li>□ Setup → Advanced → QoS/Security → Administrator Password (Confirmation):</li> <li><your password=""></your></li> </ul>							

Save by clicking on Save

Result: The administrator password has been changed.

# **Operation Modes**

The default operation mode is "Administrator Mode".

# User Mode

User Mode limits the configuration rights, i.e. no access to parts of the menus on both web and phone user interface.

Action: Enable User Mode via Web or Phone User Interface

snom 300	snom 320	snom 360	snom 370				
$\blacksquare \text{ Setup} \to A$	Setup → Advanced → QoS/Security → Administrator mode: <0FF>						
	Save by clicking on Save						
or							
not supported	not Enter the settings menu and navigate through the menu (see page 22):						
		🖀 10 Maintenanc	e → 1 User Mode				
		Pres	s 🗸				

Result: User Mode has been enabled.

English

#### Administrator Mode

Administrator mode grants unlimited access to the phone configuration on both web and phone user interface.

Action: Enable administrator mode via web user interface or phone user interface

snom 300	snom 320	snom 360	snom 370
	Setup $\rightarrow$ Advanced $\rightarrow$	Enter Administrator Pass	word
	Save by cli	icking Save	
	C	or	
not supported	not supported	Enter the settings through the men	0
		🖀 9 Maint 1 Administ	tenance → rator Mode
		Pres	s 🗸
		— Admin Mode Pwd —	Admin Mode Pwd time
		Enter the administr pres	

**Result:** Administrator Mode has been enabled.

## Firmware Update

The phone is delivered with pre-installed software (firmware) which allows operating your phone flawlessly. If you require updating the phone's firmware you can aquire a new version at snom's website:

http://snom.com/firmware.html or http://wiki.snom.com/Firmware

(1) **Note**: Only advanced users should conduct a firmware update. If your phone operates in a locally hosted VoIP PBX environment ask your system administrator.

#### Versions

Several major firmware versions have been released for snom phones:

snom 300	snom 320	snom 360	snom 370
	Release 3	Release 3	
	Release 4	Release 4	
	Release 5	Release 5	
Release 6	Release 6	Release 6	
Release 7	Release 7	Release 7	Release 7

#### Methods

Firmware updates can be conducted using the following methods:

## Only for advanced users or system administrators:

- 1. Manual TFTP update: Exceptional situations or downgrade, see page 12
- 2. *Manual update/downgrade*: Most convenient when updating/downgrading within the same major release level, e.g. 6.X: from version 6.2.3 to 6.5.10, etc.

③ Note: We do not recommend manual updates between different major release levels, e.g. from 3.X/4.X/5.X to 6.X or 6.X to 7.X. Use → automatic updates instead.

3. *Automatic update:* This method updates your phone firmware to the current official release.

## Manual update or downgrade

(i) Note: This method requires an internet connection.

The manual update is conducted via the phone's web user interface.

Version Check

Action: Check the firmware version currently installed on your phone

snom 300	snom 320	snom 370			
	stem Information $\rightarrow$ System	stem Information $\rightarrow F_{I}$	irmware-Version:		
snom 300-SIP X.Y.Z	snom 320-SIP X.Y.Z	snom 360-SIP X.Y.Z	snom 370-SIP X.Y.Z		
	C	r			
Enter the		Tress 🖀			
settings menu and navigate through the menu (see page 22):	(?) Help				
Information → Version	← Information → IPAdr MAC Version	About snom 360-SIP-X.Y.Z	Info time snom 370-SIP-X.Y.Z		
Press 🗸	Press Version	IP Adr: X.X.X.X MAC: 0004132XXXXX	IP Adr: 192.168.0.10 MAC: 0004132XXXXX		
Version: s300-SIP X.Y.Z	Version: snom 320-SIP X.Y.Z				

Result: The firmware version currently installed on your phone is displayed.

Version Comparison

Compare the major release level of the latest available firmware version published on <u>snom's firmware download website</u><sup>23</sup> with the firmware version installed on your phone. If they differ you are strongly advised not to conduct a manual update!

Example: Latest available firmware version for snom 360 is 6.5.10

- Snom 360 (1): Installed: snom 360-SIP 4.5 → use *automatic* update
- Snom 360 (2): Installed: snom 360-SIP 6.2.2 → *manual* update can be used

#### Firmware Update

Action: Conduct a manual firmware update

snom 300 snom 320 snom 360 snom 370							
Na	Navigate to snom's firmware download website						
Copy the <i>link</i> (URL) o	Copy the <i>link</i> (URL) of the appropriate firmware version X.Y.Z by right-clicking on the "File" Symbol						
Version	Туре	File	Size				
X.Y.Z	applications	🗅.bin	<file size=""> MB</file>				
	Access the phone's web user interface						
	Start the update b	by clicking on Load					
🖀 The phone rebo	ots automatically and	you are prompted to	confirm the update.				
Press $\checkmark$ to confirm or press $\times$ to abort the update process.							
The phone loads the new software from snom's web server. This process may take some time depending on the <file size=""> and the speed of your internet connection.</file>							
Warning: Any power interruption during the following process will most likely lead to a flash memory error. As a result the system cannot boot up anymore and the phone must be sent in for repairing at your own expense.							
After successful download the old firmware is erased and the new firmware is written into the phone's flash memory.							
The phone reboots	-	ialized using the previ uration.	ously stored phone				

**Result:** The firmware is updated. You can verify the successful update as described in chapter "Version Check" on page 48.

## Automatic update

(i) Note: This method requires an internet connection.

The automatic update is conducted via the phone's web user interface.

Action: Conduct an automatic firmware update

snom 300	snom 320	snom 360	snom 370
Navigate to snom	's online knowledge d	atabase and read <u>this</u>	article <sup>24</sup> carefully.
		propriate update metho current official firmwa	
http://p	provisioning.snom.com	m/release/update_on	ce.php
	Setup → Advanced – and paste the <i>lii</i> by clicking on <mark>Save</mark> an	r interface ( <i>below Ver</i> . → Update → <i>Setting U</i> . <i>nk</i> into that field. Ind start the update by a oots automatically	RL
to a flash memory	error. As a result the	the following process system cannot boot up pairing at your own ex	anymore and the
	,	essary software from s e process may take so	

The phone will be initialized using the previously stored phone configuration.

**Result:** The firmware is updated. You can verify the successful update as described in chapter "Version Check" on page 48.

# Reboot

① **Note**: You should reboot the phone when you are challenged, e.g. after applying changes to the phone configuration.

Action: Reboot the phone.

snom 300 snom 320 snom 360 snom 370						
Setup → Advanced → Update → Reboot						
		C	or			
The set and the se	ettings menu	ı and navig	ate through the menu	(see page 22):		
Configuration → Reboot 2 10 Maintenance → 4 Reboot						
Press 🗸	Press V Press Press V Press V					
Reboot?						
		Pres	s 🗸			

**Result:** The phone reboots.

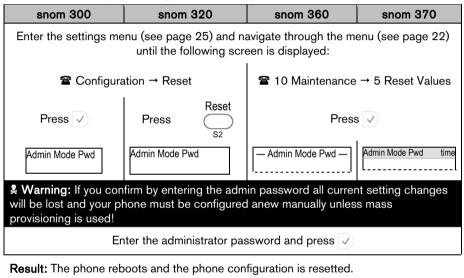
Rebooting	Rebooting	Rebooting	Rebooting
-----------	-----------	-----------	-----------

# **Factory Reset**

① Note: You should reset the phone only in the following situations:

- The phone configuration was changed and the phone is not functioning anymore.
- The help desk of your vendor or snom partner advised you to do so.

#### Action: Reset the phone configuration to factory values



Rebooting	Rebooting	Rebooting	Rebooting
-----------	-----------	-----------	-----------

# **Basic Call Functions**

# **Outgoing Calls**

# Extension (SIP identity) for Outgoing Calls

**Example:** There are two extensions (ext1, ext2) registered on your phone; "ext1" is currently used for outgoing calls.

Action: Select ext2 for outgoing calls.

snom 300	snom 320	snom 360 snom 370			
ext1 time 	date ext1 time 	<b>a</b> ext1	date time ext1 ext2		
Press	Press	Pre	ess		
ext2 time 【	date ext2 time 	☐ <u>ext1</u>	date time ext1 ext2		

**Result:** The extension displayed will be used for outgoing calls.

**Result:** The extension indicated by **a** will be used for outgoing calls.

**Result:** The highlighted extension ( **2**) will be used for outgoing calls.

# Making Calls

You can make calls using the supported number formats described below. Change the input mode in accordance with the number format (see "Input Mode" on page 55). Use the appropriate audio operation mode (see page 57) for dialing.

# Supported Formats

The following types of numbers/addresses can be dialed.

## Phone Numbers

snom 300         snom 320         snom 360         snom 370					
<i>Phone numbers</i> ; format is specified in <u>E.164</u> , e.g. 0049030398330 or +4930398330					

- Use the alphanumeric keys 1 to ...0, see page 6.
- Use numeric input mode [123], see page 56

SIP Addresses (SIP-URI)

	snom 300	snom 320	snom 360	snom 370
--	----------	----------	----------	----------

*SIP addresses*; SIP-URI format is specified in <u>RFC 3261</u>, e.g. 123456@snom.com abcd@192.168.0.2 etc.

- Use the alphanumeric keys 1 to ...0, see page 6.
- Use numeric input mode [123], see page 56, and/or alphanumeric mode [abc / ABC], see page 55

## IP Addresses

(i) Note: We do not recommend the use of IP addresses.

snom 300 snom 320 snom 360 snom 370				
<i>IP addresses</i> ; <u>IPv4</u> s	pecification, e.g. 192.1	68.0.2 etc.		
• Use the alphanu	meric keys 🚺 to 🤇	0, see page 6.		
Use numeric inp	ut mode [123], see pa	age 56		

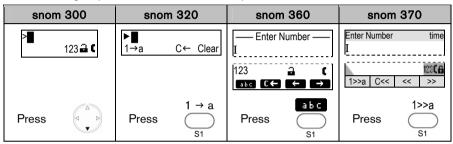
#### Input Mode

The default input mode is the *numeric* mode.

① Note: Change the input mode in accordance with the type of number to be dialed. The last input mode will remain active.

Numeric Mode to Alphanumeric Mode (Lower case)

Action: Change input mode from numeric to alphanumeric mode (lower case)



Result: The input mode has been changed to *lower case*. The display shows:

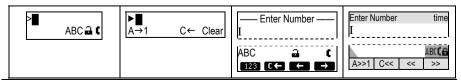
> <b></b>	► <b>∎</b>	—— Enter Number ——	Enter Number time
	a→A C← Clear	I	I
		abc 🔒 🕻 ABC C C C C	a>>A C<< >>

Lower Case to Upper Case

Action: Change input mode from lower to upper case

snom	n <b>300</b>	snon	า 320	snom	snom 360 sno		370
>∎	abc 🔒 🕻	►∎ a→A	C← Clear	—— Enter N I	lumber ——	Enter Number I	time
				abc ABC C←	a ( ← →	a>>A C<<	abe <b>(6</b> << >>
Press		Press	a→A 	Press		Press	a>>A

Result: The input mode has been changed to upper case. The display shows:



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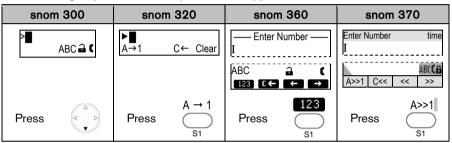
Action: Toggle between *lower case* and *upper case* input mode

snom 300	snom 320	snom 360	snom 370
	Press	(a-A <b>X</b> )	

**Result:** The input mode is toggled between lower and upper case. The phone displays the current input mode.

Alphanumeric Mode (Upper Case) to Numeric Mode

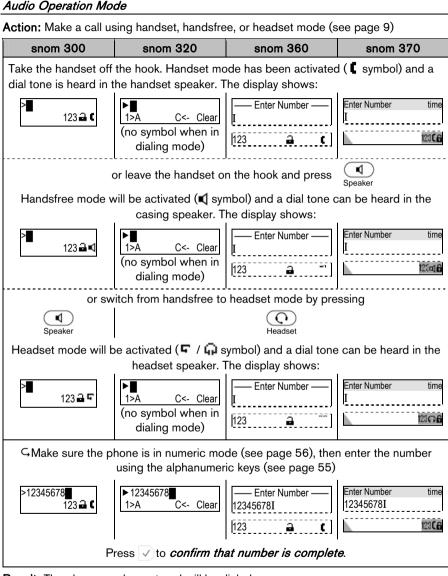
Action: Change input mode from alphanumeric (upper case) to numeric mode



**Result:** The input mode has been changed to *numeric*. The display shows:

> <b></b>	►∎ 1→A C← Clear	Enter Number —	Enter Number time I
			1>>a C<< << >>

English



Result: The phone number entered will be dialed.

You can also make a call using handset or handsfree mode without confirming the previously entered number:

snom 300	snom 320	snom 360	snom 370
	Enter the numb Lift the handset		

Result: The phone begins to dial.

# Auto Completion (Number Guessing)

() Note: The following setting must have been configured in advance:

 $\blacksquare$  Setup  $\rightarrow$  Advanced  $\rightarrow$  Behavior  $\rightarrow$  Number Guessing: <ON>

Setup → Advanced → Behavior → Number Guessing Minimum Length: <2..4>

Action: Dial a supported format (see page 54) using auto completion (number guessing).

snom 300	snom 320	snom 360	snom 370	
Enter a supported format (number or name $ ightarrow$ digits/letters) to be dialed.				

**Result:** After the minimum number (*Number Guessing Minimum Length*) has been entered, the phone will search the call lists (page 82) and the phone directory (page 81) for numbers/names containing those digits/letters and present the search results in a list on the display. The resulting list can be browsed using .

The **displayed** entry can be dialed by pressing  $\checkmark$  or continue entering numbers.

Action: Turn off auto completion (number guessing) temporarily

snom 300	snom 320	snom 360	snom 370		
Press					
		or press	or press		
	-	+	<<		
		S3	S3		

**Result:** The entered number will not be auto-completed by number guessing. Dial the number by pressing  $\checkmark$ 

# Call Completion

This call function allows you to establish calls successfully when the other party is busy or not answering.

(1) Note: Your VoIP PBX must support this feature.

# Enabling

Action: Enable call completion via the web or phone user interface:

snom 300	snom 320	snom 360	snom 370	
$\blacksquare$ Setup → Advanced → Behavior → <i>Call Completion</i> : <0N> $\blacksquare$ Setup → Advanced → Behavior → <i>Peer to Peer Call Completion</i> : <0N>				
	C	or		
not supported	not supported	Enter the settings menu and navigate through the menu (see page 22):		
		<ul> <li>2 6 Phone Behaviour →</li> <li>6 Call Completion → On</li> </ul>		

# When "Busy" (CCBS)

You can activate call completion when the called party *extB* is busy.

# Activation

Action: Activate call completion when called party extB is busy

snom 300	snom 320	snom 360	snom 370		
Activate Call Completion?	Activate Call Completion Cancel	Activate Call Completion?	Busy time Activate Call Completion?		
Confirm with $\checkmark$ or abort with $\times$					

**Result:** Call completion has been activated and the display shows:

Waiting: extB	Waiting: extB	— Call Completion —	Call Completion time
	Cancel Ok	Waiting: extB	Waiting: extB

#### While Waiting

Action: Optionally: Continue using the phone while waiting for call completion

snom 300	snom 320	snom 360	snom 370

Press v to return to the idle screen

Result: The idle screen is displayed and the message "CC" is shown on the display.

ext1 time CC ⊄	date CC time	• ext1	date time
		CC date	Call Completion

Call Completion

Action: Dial the number when called party extB becomes idle.

snom 300	snom 320	snom 360	snom 370	
The following message will be displayed when the called party <i>extB</i> becomes idle:				
Call: extB?	Call: extB? Cancel Ok	— Call Completion — Call: extB?	Call Completion time Call: extB	
Press 🗸 to dial the number.				

**Result:** The call to the busy party *extB* could be completed.

# On "No Responding" (CCNR)

You can activate call completion when the called party *extB* is not responding.

① Note: Be aware that activity detection only detects whether the phone you are calling is being used. It cannot detect whether the person you want to reach is in the room or not!

The following settings must have been configured in advance:

## Snom 300 only:

- $\blacksquare \text{ Setup} \rightarrow \text{Function Keys} \rightarrow \text{Px} \rightarrow \text{Context: <Active>}$
- $\blacksquare$  Setup → Function Keys → Px→ Type: <Key Event>
- $\blacksquare \text{ Setup} \rightarrow \text{Function Keys} \rightarrow \text{Px} \rightarrow \text{Number: F_CALL_COMPLETION}$

#### Activation

Action: Activate call completion when called party extB is not responding

snom 300	snom 320	snom 360	snom 370
extB	extB CC Cancel	extB	Calling time extB name extB number ext1 name ext1 name
W	hen the called party i	s not responding pres	s:
LEDX PX F_CALL_COMPLETION	CC S3	CC S2	CC S2

Result: Call completion has been activated and the following message is displayed:

Waiting: extB	Waiting: extB	— Call Completion —	Call Completion time
	Cancel Ok	Waiting: extB	Waiting: extB

While Waiting

Action: Optionally: Continue using the phone while waiting for call completion

snom 300	snom 320	snom 360	snom 370
Press 🗸 to return to the idle screen			

Result: The idle screen is displayed and the message "CC" is shown on the display.

ext1 time CC ∎	date CC time	• <u>ext1</u>	date time a ext1
		CC date	Call Completion

Call Completion

Action: Dial the number when called party *extB* becomes available.

snom 300	snom 320	snom 360	snom 370	
Call: extB?	Call: extB? Cancel Ok	— Call Completion — Call: extB?	Call Completion time Call: extB	
Press 🗸 to dial the number.				

**Result:** The call to the non-responding party *extB* could be completed.

# **Call Termination**

## Action: Terminate a call

snom 300	snom 320	snom 360	snom 370
(1) Replace the handset, (2) press the handset hook (see page 9) or (3) press $ imes$			

Result: The call is terminated.

# Redial

This function allows the redialing of previously dialed numbers (see page 82).

Action: Redial a previously dialed number

snom 300	snom 320		snom 360	snom 370
Press LED3 P3 Redial	Press	Redial	Press	Redial
The previously dialed numbers are displayed, one at a time.		The list of previously dialed numbers is displayed.		
Use 💮 to navigate through the entries. Begin dialing the displayed or highlighted entry pick up the handset or by pressing 🗹.				

**Result:** A previously dialed number is redialed.

#### User Manual

English

# **Incoming Calls**

# Call Indication

An incoming call is indicated acoustically and visually:

#### Acoustic

• Ringtone (see page 34)

#### Visual

- Fast Blinking LEDs
  - LED adjacent to Free Function "Line" Key

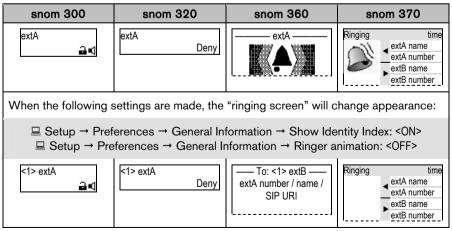
(i) **Note**: Use the default settings (see page 41)

 $\blacksquare \text{ Setup} \rightarrow \text{Function Keys} \rightarrow \text{Px:}$ 

Context: <Active>, i.e. the extension for outgoing calls is used Type: <Line> Number: <empty>

- "Message" LED, see page 9
- o Call Indication LED (snom 370 only), see page 9
- Flashing backlight (not available on snom 320), see page 32
- Display
  - o Calling party's extension
  - Calling party's picture (snom 370 only)
  - o Called party's extension/SIP Identity index

Example: Ringing Screen Appearance (calling party extA; called party extB)



# Accepting Incoming Calls

#### Action: Accept an incoming call

snom 300	snom 320	snom 360	snom 370			
Pick up the handset (→ enable <i>handset mode</i> )						
	or					
press						
or						
press √ (→ enable <i>handsfree</i> or <i>headset mode</i> , if used)						

Result: The incoming call has been accepted.

# Call Waiting

This call feature allows your phone to accept other incoming calls to an extension (SIP identity) *extB* already in an active call.

① Note: The default setting has to be configured in advance:

 $\blacksquare \text{ Setup} \rightarrow \text{Advanced} \rightarrow \text{Audio} \rightarrow \text{Call Waiting Indication:}$ 

<ON>: A recurring knocking sound will be heard in the background of the ongoing call to signal further incoming calls.

<VISUAL> Further incoming calls are indicated only on the display.

One free function "Line" key per call is required (see page 41).

Example: There is one active call from *extA* indicated by the permanently lit LED1.

snom 300	snom 320	snom 360	snom 370
extA 1:10	<b>≒</b> extA 1:10	Connected —— extA	Connected time
LED1 P1		P1 LED1	
LED2 P2		P2	

English

snom 300	snom 320	snom 360	snom 370			
Another incomin	Another incoming call is signalized on the display and by the blinking LED2.					
extA 1:10 extC 🔒 C	≒extA 1:10 extC	extA extC	Connected time			
LED1 P1		P1 LED1				
LED2 P2		P2 LED2				

Action: Receive another incoming call at extC while in an active call at extA.

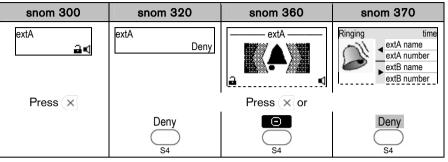
Answer the call by pressing the free function "Line" key next to the blinking LED2.

Result: The first active call on the free function "Line" key P1 is placed on hold and the 2<sup>nd</sup> incoming call on the free function "Line" key P2 is accepted. This is indicated by a slowly blinking LED1 and a permanent lit LED2. Additionally a tone sequence can be played to remind you of the waiting call.

extC 1:10 🖬 🕻	sextC 1:10	Connected —— extC	Connected time
LED1 P1		P1	
LED2 P2		P2 LED2	

# **Denying Incoming Calls**

## Action: Deny an incoming call to extA



**Result:** The incoming call has been denied.

# Denying Incoming Calls Automatically

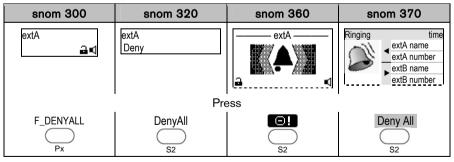
① Note: The following settings must have been configured in advance (via mass deployment or manually):

Setup → Advanced → Behavior → Deny All Feature: <ON>

#### Snom 300 only:

- $\blacksquare \text{ Setup} \rightarrow \text{Function Keys} \rightarrow \text{Px} \rightarrow \text{Context: <Active>}$
- $\blacksquare$  Setup  $\rightarrow$  Function Keys  $\rightarrow$  Px  $\rightarrow$  Type: <Key Event>
- $\blacksquare$  Setup  $\rightarrow$  Function Keys  $\rightarrow$  Px  $\rightarrow$  Number: F\_DENYALL

Action: Deny incoming calls to *extA* automatically



**Result:** The incoming call is denied and the related caller information is added to a *deny list* in the phone's directory (see page 81). All calls from this number will be rejected automatically.

# DND (Do Not Disturb) Mode

① Note: The following settings must have been configured in advance:

□ Operation → Directory / Address Book → Add or Edit Entry/Contact Type: </

The following configuration is mandatory on snom 300, but optional for snom 320/360/370 if additional feedback via LEDx is desired:

 $\blacksquare$  Setup  $\rightarrow$  Function Keys  $\rightarrow$  Px  $\rightarrow$  Context: <Active>

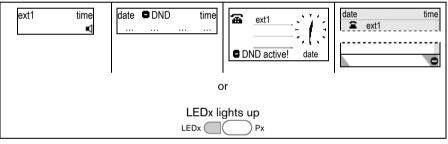
 $\blacksquare$  Setup → Function Keys → Px → Type: <Key Event>

 $\blacksquare$  Setup → Function Keys → Px → Number: F\_DND

Action: Activate DND (Do Not Disturb) Mode

snom 300	snom 320		snom 360	snom 370
Press LEDx Px	Press		or press	LEDx Px

**Result:** DND Mode has been activated. Further incoming calls will be rejected (except those from "VIP" numbers). The display shows:



Action: Deactivate DND (Do Not Disturb) Mode

snom 300	snom 320		snom 360	snom 370
Press LEDx Px	Press		or press	LEDx Px

**Result:** DND Mode has been deactivated. Further incoming calls will not be rejected anymore.

#### English

# Call Forwarding

This feature allows you *(extB)* to forward an incoming call from *extA* to another phone number (*extC)*, e.g. a cell phone or voice mailbox.

The following call forwarding events can be configured:

- Off: Call forwarding is *deactivated by default*.
- Always: Incoming calls are immediately forwarded.
- Busy: Incoming calls are immediately forwarded when the phone is busy.
- **Time:** Call forwarding is activated when the time (in seconds) entered has passed without the call having been answered.

#### Always

Action: Activate call forwarding event "Always" (to extC)

snom 300	snom 320	snom 360	snom 370	
	Preferences→ Call For	warding $\rightarrow$ Always $\rightarrow$	Target: <extc></extc>	
💻 Setup	→ Preferences→ Cal	Forwarding $\rightarrow$ Event:	<always></always>	
	Save by clic	king on Save		
	C	r		
🖀 Call Forwar	ding → Always	🖀 7 Call Forwarding	g → 3 Always Target	
Pres	Press  Fress			
Enter "Always	Enter "Always target" <extc> →1 Call Forwarding Event</extc>			
Pres	s 🗸	Choose "Always" and press $\checkmark$		

① **Note**: To turn the call forwarding event "Always" on and off more quickly and conveniently, it can be programmed onto one of the free function keys.

The following setting must have been configured in advance:

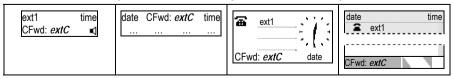
 $\blacksquare \text{ Setup} \rightarrow \text{Function Keys} \rightarrow \text{Px} \rightarrow \textit{Context: <Active>}$ 

 $\blacksquare$  Setup  $\rightarrow$  Function Keys  $\rightarrow$  Px  $\rightarrow$  *Type*: <Key Event>

 $\blacksquare$  Setup → Function Keys → Px → *Number*. F\_REDIRECT or F\_REDIRECT:extC



Result: Call forwarding is activated. Incoming calls are immediately forwarded to extC.



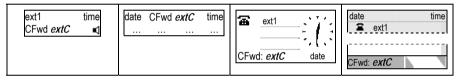
# English

#### Busy

Action: Activate call forwarding event "when busy" (to extC)

snom 300	snom 320	snom 360	snom 370
	Preferences→ Call Fo	rwarding → Busy → Ta	urget: <extc></extc>
💻 Setup -	→ Preferences → Call F	Forwarding → Event: <v< td=""><th>Vhen Busy&gt;</th></v<>	Vhen Busy>
	Save by cli	cking Save	
	C	r	
🖀 Call Forwa Pres	rding → Busy s 🗸	7 Call Forwardir Enter <extc> a</extc>	
Enter "Busy t Pres		→1 Call Forw Choose "When	varding Event Busy" and press 🗸

**Result:** Call forwarding is activated. Incoming calls are immediately forwarded to *extC* when one of the extensions is busy.



#### Timeout

Action: Activate call forwarding event "on timeout" (to extC) snom 300 snom 360 snom 320 snom 370 Setup → Preferences → Call Forwarding → Timeout → Target: <extC>  $\blacksquare$  Setup → Preferences→ Call Forwarding → Timeout → Timeout (sec): <time in sec> Setup → Preferences→ Call Forwarding → Event: <After Timeout> Save by clicking on Save or Call Forwarding → Time
 Press V Enter <extC> and press V Enter "Timeout target" <extC> → 2 Call Forwarding Time Press V Enter <time in sec>and press Enter <time in sec> →1 Call Forwarding Event Press V Choose "On Timeout" and press

**Result:** Call forwarding is activated. Incoming calls are forwarded to *extC* when the time (in seconds) entered has passed without the call having been answered.

CEwd extC	date CFwd: <i>extC</i> time	CFwd: extC date	date time ext1 CFwd: <i>extC</i>
-----------	-----------------------------	-----------------	--

English

# **Active Calls**

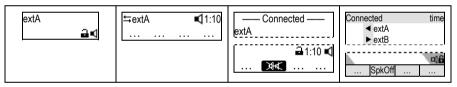
# Audio Operation Modes

The audio operation modes *handset*, *handsfree*, and *headset* can be alternated during active calls.

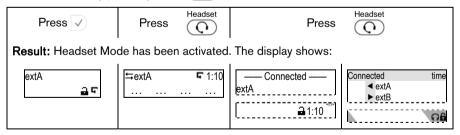
Action: Switch between *handset*, *handsfree*, and *headset* mode during an active call.

snom 300	snom 320	snom 360	snom 370
extA	t⇒extA 1:10  (no symbol when in handset mode)	extA	Connected time
Press	Speaker	💵 Press	SpkOn Speaker Or
			SpkOn

**Result:** Handsfree mode has been activated and the display shows:



You can either opt to stay in *handsfree mode* by replacing the handset or return to *handset mode* by pressing speaker of or switch to *headset mode*:



# Mute / Unmute

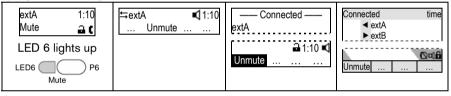
This function allows you to mute the microphone of the active audio device during a call, i.e. the other party cannot hear you. Unmute the microphone to return to normal conversation.

# Mute

Action: Mute the microphone of the active audio device during a call.

snom 300	snom 320	snom 360	snom 370
Press LED6 P6 Mute	Press	Mute	or press
	Mute S2	Mute S1	Mute S1

**Result:** The microphone of the active audio device has been muted and the other party cannot hear you. This is indicated as follows:

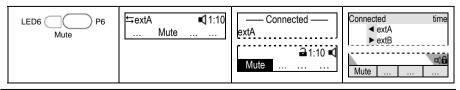


#### Unmute

Action: Unmute the microphone of the active audio device during a call.

snom 300	snom 320	snom 360	snom 370
Press LED6 P6	Press	Mute	or press
	Unmute	Unmute S1	Unmute S1

**Result:** The microphone of the active audio device has been activated again. This is indicated as follows:



# **Multiple Speaker Mode**

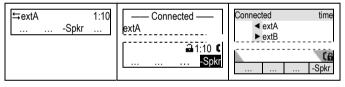
This option is only available during an active call and allows you to use two speakers simultaneously for listening (handset/casing speaker or headset/casing speaker).

## Enable Casing Speaker

Action: Turn on the casing speaker during an active call when in handset mode.

snom 300	snom 320	snom 360	snom 370
Not applicable	≒extA 1:10 +Spkr	← Connected ← extA • 1:10 C	Connected time
	Press +Spkr	Press S4	Press S4

**Result:** The casing speaker has been activated as indicated by the changing text/icon above the corresponding context-sensitive key



#### Disable Casing Speaker

Action: Turn on the casing speaker during an active call in handset mode.

snom 300	snom 320		snom 360		snom 370	
	Press	-Spkr	Press	-Spkr	Press	-Spkr

**Result:** The casing speaker has been deactivated as indicated by the changing text/ icon above the corresponding context-sensitive key



# Hold and Resume

This call function allows you (*extB*) to place an active call from *extA* on hold. When placing a call on hold, your IP PBX might play a melody or message to the other party while waiting. Other calls can be received and made while having a call on hold.

#### Hold

Action: Place an active call on hold

snom 300	snom 320	snom 360	snom 370			
Press the free	ree function "Line" key whose adjacent LED is <i>lit up</i>					
Not applicable	o	r press				

**Result:** The current call is placed on hold. This is indicated by the slowly blinking LED of the free function "Line" key. The following message is displayed:

Calls on Hold: 1	Calls on Hold: 1 extA	— Calls on Hold: 1 — extA	Calls on Hold: 1 ✦extA extB
------------------	--------------------------	------------------------------	-----------------------------------

#### Resume

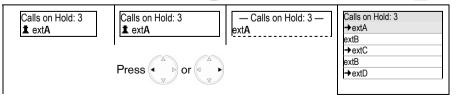
#### Action: Resume a held call

snom 300	snom 320	sno	om 360	snom 370
Press the free fun	ction "Line" key whose	e adjacen	t LED is <i>blink</i>	ing slowly 🗌 🛛
Not applicable	с	or press	Hold	

Result: The held call is resumed. The number of the calling party is displayed.

extA 1:10	<b>⇔extA</b> 1:10	—— Connected —— extA	Connected time

Several calls, e.g. to *extA*, *extC*, and *extD*, can be placed on hold simultaneously. Navigate through the calls on hold with and resume the highlighted one with  $\checkmark$ .



#### User Manual

English

Calls on Hold: 3 <b>1</b> extC Calls on Hold: 3 <b>1</b> extC <b>1</b> extC	lls on Hold: 3 — JextB
---	------------------------

# Call Transfer

This call function allows your phone (*extB*) to transfer an active call from *extA* to a third phone (*extC*) without announcing the call to *extC* ("Blind Transfer") or with prior announcement ("Attended Transfer").

(i) Note: Your VoIP PBX must support this functionality.

# Blind Transfer

Action: Perform a "Blind Transfer"

snom 300	snom 320	snom 360	snom 370
extA 1:10 ⊒ €	<b>⇒</b> extA 1:10	Connected —— extA	Connected time
Press	Press		
LED5 P5 Transfer	•—•• Transfer		
extA will be placed on hold automatically.			
Enter <i>extC</i> and press v or hang up to confirm.			

**Result:** The call from *extA* is blindly transferred to *extC*. If *extC* is busy or not responding there will be no feedback to *extB* and the call would be forwarded to *extC's* voicemail if so configured.

# Attended Transfer

Action: Perform an "Attended Transfer"

snom 300	snom 320	snom 360	snom 370
	hold (see page 71), and then dial <i>extC's</i> number. When <i>extC</i> e the call. If <i>extC</i> wishes to accept the call, press:		
LED5 P5 Transfer	•—•• Transfer		
The list of held calls	is displayed. If there is more than one held call, choose the party		
you want to	ransfer by using 💮 and press 🗸 or 🐽 to confirm.		
Number: extA	Number: extA Edit Cancel	Number extA	Number ▲ extA ▶ extB

Result: The call from extA is transferred to extC.

# Conference

This call function allows your phone (*extA*) to establish a three-party conference, i.e. three phone parties can communicate with each other.

# Establishing

Action: Establish three-party conference on your phone (extA)

snom 300	snom 320	snom 360	snom 370	
Call <i>extB</i> and place the call on hold (see page 71) Call <i>extC</i> and initiate the conference as follows:				
extC 0:10 Cnf.On 🔒 🕻	Press	Conference	or press	
Press 🗸	Cnf.On	S4	Cnf.On S4	

**Result:** The three-party conference has been established. The participants *extA*, *extB*, and *extC* can hear each other. This is indicated as shown:

extC 0:10 Cnf.Off	S4	Cnf.Off S4
----------------------	----	---------------

## Disconnecting

Action: Disconnecting a Conference

snom 300	snom 320	snom 360	snom 370
Press 🗸	Press	<b>A</b> Conference	or press
	Cnf.Off	S4	Cnf.Off S4

Result: The conference has been disconnected; *extB* and *extC* are placed on hold:

Calls on Hold: 2	Calls on Hold: 2 extC	— Calls on Hold: 2 — extC	Calls on Hold: 2 ✦extC extA ✦extB extA
------------------	--------------------------	------------------------------	--

# **Call Recording**

You can record active calls. The recordings are available through your voice mailbox (see page 87)

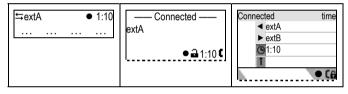
( Note: Your VoIP PBX must support this functionality.

#### Turn On

#### Action: Turn On Call Recording

snom 300	snom 320	snom 360	snom 370
Not supported		Press Record	

**Result:** Recording starts. A blinking symbol  $\bullet$  is shown in the display while recording.



## Turn Off

## Action: Turn Off Call Recording

snom 300	snom 320	snom 360	snom 370
Not supported		Press Record	

**Result:** Recording stops. The recording is now available in your voice mailbox and a message waiting indication is sent to your phone.

# Advanced Phone Functions

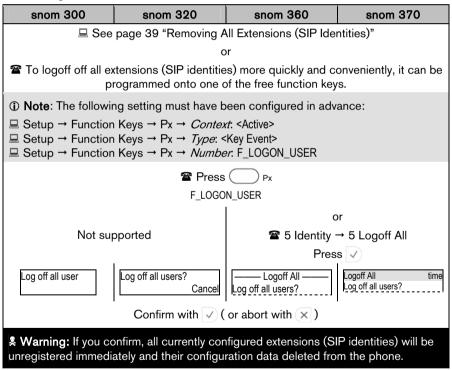
# Hot Desking

The basic functionality allows logging off existing user accounts (extensions/SIP identities) and logging on new user accounts (extensions/SIP identities).

① **Note**: This feature can be enhanced to allow automatic provisioning of customized phone configuration when different users logon to your phone; the enhanced functionality must be supported by your VoIP PBX.

# Logoff All Users (Extensions/SIP Identities)

Action: Logoff all users (extensions/SIP identities)



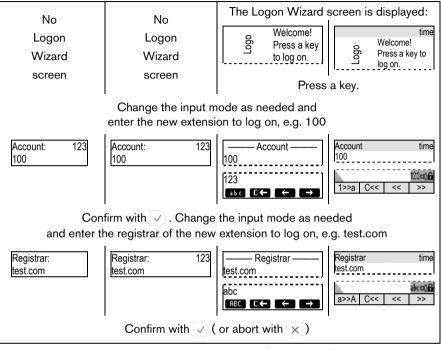
**Result**: All extensions are unregistered and removed from your phone configuration. The phone is placed out of operation and the logon wizard will be shown on the display.

English

<sup>©</sup> snom technology AG 2007

# Logon New User (Extension/SIP Identity)

Action: After logging off all users (see page 79) you can logon a new user



**Result:** The phone attempts to register the new user (see page 19).

① Note: The enhanced functionality requires the following steps:

- 1. The log off information is sent to the VoIP PBX via "Action URL" <Log off>
- 2. The new user information is sent to the VoIP PBX via "Action URL" <Log on>
- 3. The VoIP PBX sends a reboot request to the phone
- 4. The phone restarts and will be provisioned with customized configuration settings

# Directory

The built-in phone directory stores the names and phone numbers of your contacts and allows you to group them into "friends", "family members", "colleagues", and "VIPs", which groups can be assigned distinct ringtones (see page 35).

snom 300	snom 320	snom 360	snom 370
	100 entries max.		250 entries max.
<i>Contact Types</i> : Friends, Family, Colleagues, VIP, De		eny List	
<b>•</b> Note: We recommend using the web user interface to add or edit entries, impor or delete directory more conveniently:			
• Releases < 7:			
• Release 7: 🗏 Ope	ration → Directory		
Given For further inform	ation read the instruc	tions for <u>release 6</u> 25 a	nd <u>release 7</u> <sup>26</sup> in our

online knowledge database.

Action: Access the phone directory

snom 300	snom 320	snom 360	snom 370
Press	Press	Directory	or press
LED4 P4 Directory	Dir S3		

**Result:** The phone directory entries will be displayed. Use  $\bigcirc$  for navigation through the list. Dial the highlighted entry by pressing  $\checkmark$ .

#### English

# Call Lists

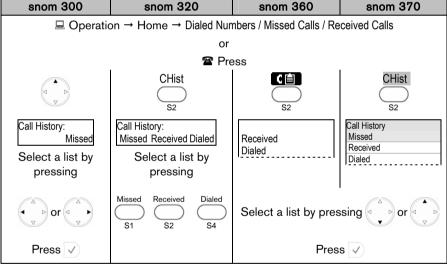
Your phone maintains locally stored lists of missed, received, and dialed calls. Each list entry has a timestamp and shows the called or calling party number respectively.

A maximum of 100 entries per list is supported.

① **Note**: When the phone is rebooted, the entries on all lists are cleared. Save them to another file if you need to keep the information.

Repeated calls from or to the same number will show the time of the last call and the total number of calls dialed/missed/received.

We recommend using the web user interface to import or delete call list entries:  $\blacksquare$  Operation  $\rightarrow$  Home



Action: Access call lists on the web or phone user interface.

**Result:** The *Call History Lists* are displayed. Dial the highlighted entry by pressing  $\sqrt{}$ . (see also page 62)

This function enables your phone to use services provided by standard web servers using the HTTP/HTTPS protocol. Typical services are:

- To-do lists
- Stock information
- Weather information
- Provisioning
- Scheduler
- Phone directory

# Availability

snom 300	snom 320	snom 360	snom 370
-	-	Release 6	-
Release 7	Release 7	Release 7	Release 7

## Access

You can configure access to the Minibrowser via web user interface using "Action URLs" pointing to XML files.

Action: Access the Minibrowser via phone user interface.

snom 300	n 300 snom 320 snom 360 snom 37					
The following settings must have been configured in advance in order to access the Minibrowser from the phone user interface.						
$\blacksquare \text{ Setup} \rightarrow \text{Function Keys} \rightarrow \text{Px} \rightarrow \text{Context: }$						
	□ Setup → Function Keys → Px → <i>Type</i> : <action url=""> □ Setup → Function Keys → Px → <i>Number</i>: <url application="" minibrowser="" to="" xml=""></url></action>					
Press						
	LEDx Px					

**Result:** The XML file will be loaded and the Minibrowser displays the application on the screen.

English

# Presence

This feature allows you to publish a presence state to indicate your current communication status in order to inform your contacts of your availability and willingness to communicate.

① **Note**: Your VoIP PBX must support this functionality. This feature is only available from firmware release 7 onwards.

The following settings must have been configured in advance:

Setup → Advanced → SIP/RTP → Publish Presence: <ON>

 $\blacksquare$  Setup  $\rightarrow$  Identity X  $\rightarrow$  SIP  $\rightarrow$  Contact List: <ON>

 $\blacksquare \text{ Setup} \rightarrow \text{ Identity } X \rightarrow \text{SIP} \rightarrow \text{ Contact List URI: <SIP URI>}$ 

# For snom 320 / 360 / 370 only:

Configure one context-sensitive key S1...S4 to call up the "Presence State" list and another one to call up the "Contacts" list:

■ Setup → Function Keys: Sx <Presence> / <Contacts>

# Changing the Presence State

The default presence state is *Offline*, i.e. your contacts are informed of your availability. You can change your presence state to one of the following options: Online, Offline, Invisible, Busy.

Action: Cha	nge your	presence	state
-------------	----------	----------	-------

snom 300	snom 320	snom 360	snom 370
Press		Press	
Configuration Reg	Presence	Sx Sx	Presence
Press  Choose the currently active extension (*) by pressing			
1∗ ext1 Press 3x ⊲ →			
1* Presence Edit			
Press 🗸			
Presence State Offline	Presence State Offline	Presence State     Online     Busy     Invisible	Presence State Offline Online Busy Invisible
Select your presence state by pressing			
	Confirm with	or abort with $\times$	

**Result:** Your presence state has been changed and will be published to your contacts.

# **Contact Presence**

The  $\ensuremath{\textit{Contacts}}$  list shows the presence state of your contacts without you having to call them.

Action: Check the presence state of your contacts

snom 300	snom 320	snom 360	snom 370
not supported	not supported	Press Contacts Sx Sx Sx	
		Contacts —— Contact 2 Contact 3	Contacts Contact 1 Contact 2 Contact 3

**Result:** The *Contacts* list is displayed and you can check the presence state of your contacts, as indicated by the

following symbols, by using ():

1 Online	e <b>1</b>		Online
🚊 Offline	e 👔	2	Offline
Busy	ŝ	2	Busy

#### User Manual

# Voice Mailbox

Your voice mailbox messages, which are usually stored on a media server of your local or hosted VoIP telephony system, can be accessed from your phone.

① Note: Your VoIP telephony system must support this functionality.

New voice messages can be indicated both acoustically and visually as described below.

## Acoustical Indication

A "Message Waiting Indication (MWI)" notification (tone sequence) can be played when a new message arrives. The "MWI Dial Tone" is a stuttering tone which can be played when a new call is started.

Action: Activate acoustical indication when a MWI arrives

snom 300	snom 320	snom 360	snom 370		
⊟ Setup → Preferen	Setup → Preferences → General Information → MWI Notification:				
<silent></silent>	MWI Notification is to	urned off			
<beep></beep>	Beep tone is played of				
<reminder></reminder>	Beep tone is played	repeatedly			
E Setup → Preferen	ces → General Inform	ation → MWI Dial Ton	e:		
<normal></normal>	MWI Dial Tone is tur	ned off			
<stutter></stutter>	Stuttering Dial Tone	is played			
	C	or			
7	Enter the settings m	ienu (see page 25) an	d		
navigate through t	he menu (see page 22	2) until the following so	creen is displayed:		
Not sup	oported	2	2 MWI Notification		
		Pres	s 🗸		
	MWI Notification — MWI Notification     Silent				
Change th			tification by pressing		
		Press 🗸 to save o	r press $\times$ to abort.		

Result: The MWI configuration has been changed.

# **Visual Indication**

#### Message LED

The "Message LED" starts blinking when new MWIs arrive and stops when all messages have been retrieved.

snom 300	snom 320	snom 360	snom 370
Message			Message
	yellow		

#### Idle Screen Symbols/Messages

snom 300	snom 320	snom 360	snom 370
Not supported	date ext1 time VMail VMail S2	ext1     finew 0 old     messages     finew ∞	date time ext1 1 new 0 old messages VMail

# **Retrieve New Messages**

Action: Listen to your new messages

snom 300	snom 320	snom 360	snom 370
Press 🗸	Press	Retrieve	or press
	VMail S2	S4	VMail S4
		Mailbox of: ext1@ You have 1 new 0 old messages	time Mailbox of: ext1@ You have 1 new 0 old messages Go to Mailbox?
		Confirm with 🗸 or a	bort with ×

**Result:** Your voice mailbox is called and you are able to listen to your new and old messages.

# English

# Extension Monitoring and Call Pickup

This feature allows you to monitor the call state of other extensions and to answer calls to these extensions. It is very useful for a user, especially a phone receptionist, to know the call state of other phones so that he or she knows if a call can be successfully made to a phone.

- ( Note: Your VoIP PBX must support this functionality.
- Single subscriptions (RFC 4235 compliant)
- Event-list subscriptions (RFC4662 compliant); this feature is only available from firmware release 7 onwards.

# Busy Lamp Field (BLF) feature

The following settings must have been configured in advance (see page 42) ■ Setup → Function Keys → Px: *Context*: <SIP Identity> *Type*: <Extension> *Number*: <Extension (SIP identity) of monitored phone>

The status of monitored extensions will be indicated by the LEDs adjacent to the previously configured free function "Extension" Keys.

Action: Monitor the call state of other phones.

snom 300	snom 320	snom 360	snom 370
	<i>Idle</i> state→	LED off	
<i>Ringing</i> state→		LED blinking ra	apidly
<i>Busy</i> or	Connected State→	LED on	

# "Calls" List

The "Calls" List represents a visual and functional extension of the BLF feature:

- The call state of monitored phones is displayed (snom 360/snom 370 only)
- The "Calls" list can be updated via an "Extension Monitoring & Call Pick Up List", i.e. instead of handling each monitored resource individually, the monitoring phone can subscribe to an entire list and then receive notifications when the state of any of the monitored resources in the list changes.
- The "Calls" list may be offered automatically when a monitored extension gets a call and is in the *ringing state*. This behavior is turned off by default.

Setup → Advanced → Behavior → Phone Behavior → Dialog-Info Call Pickup:

 $\blacksquare \text{ Setup} \rightarrow \text{Identity X} \rightarrow \text{SIP} \rightarrow \text{Extension Monitoring \& Call Pick Up List: <ON>}$ 

Setup → Identity X → SIP → Extension Monitoring & Call Pick Up URI: <SIP URI>

Setup → Function Keys: S1 / S2 / S3 / S4 <Calls>

Action: Check the call status of other phones assigned to your call group.

snom 300	snom 320	snom 360	snom 370	
Not supported	Not supported	Press		
		S4	Calls S4	
		Calls ——— extC ♦ extD	Calls time extA = extB extC = extD	

**Result:** The *Calls* list is displayed and the call statuses *ringing* (+) and *connected* (•) of other phones assigned to your call group can be monitored. Use to navigate when there are several simultaneous calls.

# Call Pickup

Action: Pick up an incoming call to one of the monitored extensions

snom 300	snom 320	snom 360	snom 370		
If the status of any of and press $\checkmark$	the status of any of your monitored extensions is <i>ringing</i> you can select that call				

Result: The selected call is picked up.

# Appendix

# Mapping of Context-Sensitive Function Keys

The following table gives an overview of the individual functions and its relation to the text or symbol displayed above each key as mentioned on page 8.

#### Idle screen

Functionality	snom 320 Text	snom 360 Icon	snom 370 Text
Calls up Registration List (default S1)	Reg	Reg	Reg
Calls up Call History Lists (default S2)	CHist	C	CHist
Calls up Phone Directory (default S3)	Dir	œ	Dir
Speed Dial Prompt (default S4)	Speed	+	Speed
Calls up Presence State List	Presence	Ð	Presence
Calls up Contact List	-	111	Contacts
Calls up Extension Monitoring List	-	Calls	Calls
Retrieves new voice mail messages	VMail	Д	VMail

## **Basic navigation**

Functionality	snom 320 Text	snom 360 Icon	snom 370 Text
Cancels or aborts actions	Cancel	×	Cancel
Confirms actions	Ok	2	Ok
Scrolls down in a list	-	Ŧ	Down
Scroll up in a list	-	<b>↑</b>	Up
Moves the Cursor to the right	-	Ţ	<<
Moves the Cursor to the left	Next	Ť	>>
Moves to Next Item	Next	»	>>

# "Edit" / "Enter number" screen

Functionality	snom 320 Text	snom 360 Icon	snom 370 Text
Deletes the last character	Clear	C	Clear
Deletes left character	C ←	C <b>E</b>	C <<
Input Mode numeric → lower case	1 <b>→</b> a	abc	1>>a
Input Mode lower case → upper case	a→A	ABC	a>>A
Input Mode upper case → numeric	A→1	123	A>>1

# "Ringing", "Calling", "Connected", "Holding", "Transfer", "Conference" screens

Functionality	snom 320 Text	snom 360 Icon	snom 370 Text
Denies an incoming call	Deny	Θ	Deny
Denies incoming calls automatically	DenyAll	Θ!	DenyAll
Places a call on hold / Resumes a call	R	5 R	R
Establishes a three-party conference	Cnf.On		Cnf.On
Disconnects a three-party conference	Cnf.Off		Cnf.Off
Mutes the active microphone	Mute	Mute	Mute
Unmutes the microphone	Unmute	Unmute	Unmute
Turns on hands free mode	-	<b>Q</b> u	SpOn
Turns off hands free mode	-	X	SpOff
Turns on casing speaker simultaneously	+Spkr	+Spkr	+Spkr
Turns off casing speaker	-Spkr	-Spkr	-Spkr

# Mapping of Key Events

Key Event	Description	Page
F_REC	Toggles recording on/off during an active call.	8 / 78
F_RETRIEVE	Retrieves the mailbox messages.	87
F_REDIAL	Shows the list of dialed records. Pressing it twice dials the last dialed record.	62
F_REDIRECT	Toggles unconditional redirection on/off. Can be followed by redirection target.	68
F_HELP	Shows helpful information about the phone.	26 / 48
F_CALL_LIST	Shows the local call lists.	82
F_DENY	Denies an incoming call.	66
F_DENYALL	Denies an incoming call and put the caller in the deny list.	66
F_SPEED_DIAL	Offers the speed dial prompt.	45
F_REGS	Shows the SIP registrations menu.	
F_MUTE	Puts the current call on mute i.e. disabling microphone.	72
F_ADR_BOOK / F_DIRECTORY	Shows phonebook/directory.	81
F_CONFERENCE	Toggle control for 3-way conference.	77
F_TRANSFER	Used to transfer a call. Can be followed by the transfer target.	76
F_R	Holds / unholds current call.	74
F_DND	Toggles Do Not Disturb (DND) feature.	67
F_CC / F_CALL_COMPLETION	Enables Call Completion feature while making a call. (CCNR/CCSB)	59
F_LOGOFF_ALL	Logs off all SIP lines on the phone. (Needs confirmation)	39
F_LOGON_USER	Launches the logon wizard to setup a SIP line on the phone.	79
F_PRESENCE	Shows presence state for the current SIP line to be altered.	84
F_BUDDIES	Shows the contact list for the current SIP line.	86
F_DIALOG	Shows current calls being monitored.	90

# Idle Screen

Phone Type	Idle Screen on Display	Pos	Element
snom 300	0 0 0 0 0 0	0	Extension (SIP Identity)
snom 320	6 0 0 96	0	Time
	000	€	Date
snom 360		4	Status Line for Messages
	•         •	6	Status Indicators (Audio etc.)
	6 9 9 0	0	Text or Symbols for Context-sensitive Keys (see page 8 and 91)
snom 370	0     0       0     0       0     0       0     0       0     0       0     0       0     0       0     0       0     0       0     0       0     0       0     0	Ø	Extension Status Indicators

#### User Manual

English

# Accessories

The following accessories can be used together with your snom phone:

# Expansion Module



The expansion module will extend the number of free function keys and LEDs (see page 7 and 40) by 42.

Given For further technical information<sup>27</sup> consult our online knowledge database.

For questions regarding the product, please contact your snom Certified Sales Partner.

Version	snom 300	snom 320	snom 360	snom 370
Hardware Revision V1 (not cascadable → only 1 module can be connected)	×	✓ FW V6 is required	$\checkmark$	$\checkmark$
Hardware Revision <b>V2</b> (cascadable → up to 3 modules can be connected)	×	√ FW V	✓ ersion 7 is red	√ quired

# Headsets



The snom HS-MM2/HS-MM3 wired headsets are available in monaural style (one loudspeaker). They must be connected to the phone's **RJ 4P4C** jack via the adapter cable included in delivery.

Given For further technical information<sup>28</sup> consult our online knowledge database.

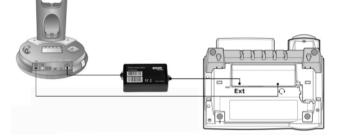
For questions regarding the product, please contact your snom Certified Sales Partner.

Version	snom 300	snom 320	snom 360	snom 370
HS-MM2	x	$\checkmark$	$\checkmark$	$\checkmark$
HS-MM3	$\checkmark$	x	x	x

# Wireless Headset Adapter



The snom *Wireless Headset Adapter* connects any <u>supported wireless</u> <u>headset</u> to your snom phone (see restrictions and firmware requirements below). That allows you to answer and terminate calls directly from your headset device (Electronic Hook Switch feature)



Given For further technical information<sup>29</sup> consult our online knowledge database or download the user manual<sup>30</sup>.

For questions regarding the product, please contact your snom Certified Sales Partner.

Version	snom 300	snom 320	snom 360	snom 370
Wireless Headset Adapter	x	$\checkmark$	$\checkmark$	$\checkmark$
		FW Version > 6.5.5 is required		

# **Power Consumption**

Power Consumption	snom 300	snom 320	snom 360	snom 370
Power adapter	_	-	-	-
• Typical (watts)	approx. 1.7 – 2.1	approx. 1.7 – 2.2	approx. 1.8 – 2.3	approx. 1.9 – 2.4
PoE				
Typical (watts)	N/A	approx. 2.0 – 2.3	approx. 2.2 – 2.5	approx. 2.3 – 2.6

# **FCC Statement**

## For snom snom3x0 VoIP phones

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 not 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.

HAC (Hearing Aid Compatible): The measurements are conduced according to FCC 47 CFR 68.316 and 68.317 (edition 2005).

Do not make any changes or modifications to equipment without seeking approval from the party responsible for compliance. Unauthorized changes or modifications could void the user's authority to operate the equipment.

# Endnotes

<sup>1</sup> Special characters are: .@1,?!-/():;&%\*#+<=>\$[]

<sup>2</sup> http://wiki.snom.com/Documentation

- <sup>3</sup> The **Portable Document Format (PDF)** is a cross-platform, open-file format for documents.
- <sup>4</sup> Not included in delivery

<sup>5</sup> http://wiki.snom.com/Firmware/Update/TFTP\_Update

<sup>6</sup> DHCP: Dynamic Host Configuration Protocol is a standardized protocol used by network devices to obtain IP addresses and other parameters from a DHCP server (router etc.)

<sup>7</sup> X = arbitrary number

<sup>8</sup> <u>http://wiki.snom.com/Mass\_deployment</u>

<sup>®</sup> http://wiki.snom.com/Firmware/V7/XML\_Settings\_File\_Format#Language\_tags

<sup>10</sup> <u>http://wiki.snom.com/Interoperability</u>

<sup>11</sup> Uniform Resource Identifiers are used to identify or name a resource (e.g., e-mail, SIP) on the Internet.

- <sup>12</sup> <u>http://wiki.snom.com/Functions/Phone/Idle\_Screen</u>
- <sup>13</sup> X = 1...12, except snom 300: X = 1...4
- 14 http://wiki.snom.com/Settings/language
- <sup>15</sup> <u>http://wiki.snom.com/Settings/web\_language</u>
- <sup>16</sup> http://wiki.snom.com/Mass\_deployment
- <sup>17</sup> http://wiki.snom.com/Accessories/Interface\_Box
- 18 http://wiki.snom.com/Interoperability
- <sup>19</sup> http://wiki.snom.com/Mass\_deployment
- <sup>20</sup> http://wiki.snom.com/Web\_Interface/V7/Function\_Keys
- <sup>21</sup> http://wiki.snom.com/Interoperability/Sylantro
- http://wiki.snom.com/Interoperability/Broadsoft
- <sup>22</sup> http://wiki.snom.com/Functions/Phone/Action\_URL
- 23 http://wiki.snom.com/firmware.html
- <sup>24</sup> http://wiki.snom.com/Firmware/Update/Automatic\_Update\_Service
- <sup>25</sup> http://wiki.snom.com/Web\_Interface/V6/Address\_Book
- <sup>26</sup> <u>http://wiki.snom.com/Web\_Interface/V7/Directory</u>
- <sup>27</sup> http://wiki.snom.com/Accessories/Expansion\_Module
- <sup>28</sup> <u>http://wiki.snom.com/Accessories/Headset</u>
- <sup>29</sup> http://wiki.snom.com/Accessories/Interface\_Box
- <sup>30</sup> http://snom.com/download/data\_snom360v10en2.pdf





