# English





ip810c



ip820c



ip830c



ip840c

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# Welcome

Welcome to the user guide for the ip8X0c VoIP phones.

This guide 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 guide describes the functions and features of the ip8X0c 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: http://www.doro.com/

**Note:** The ip8X0c 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

DORO AB MAKES NO WARRANTY OF ANY KIND WITH REGARD TO THIS MATERIAL, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Doro AB shall not be liable for errors contained herein nor for incidental or consequential damages in connection with the furnishing, performance, or use of this material.

# **Declaration of conformity**

Hereby, Doro AB, 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.doro.com/dofc.



1

# **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 mains-operated phones: Only operate with the mains power voltage indicated. If you are
  uncertain of the type of power supplied to the building, consult property management or
  your local power company.
- For mains powered phones: 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, and kitchen sink, in a 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

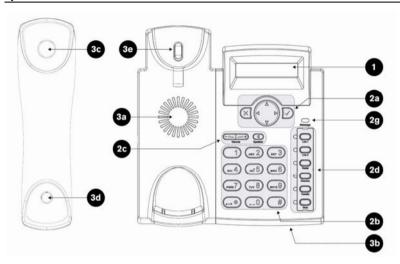
Your product should not be placed in municipal waste. Please check local regulations for disposal of electronic products.

# **Overview**

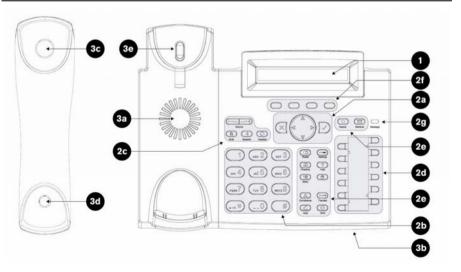
# **Hardware Components**

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

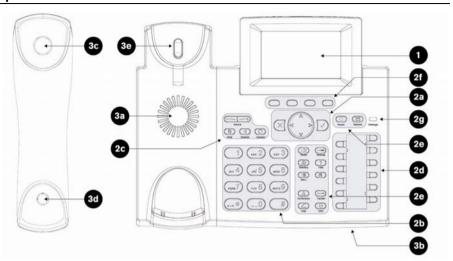
# ip810c



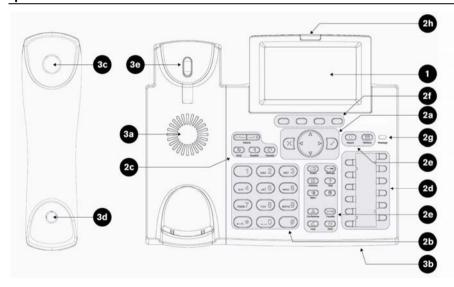
# ip820c



# ip830c



# ip840c



# (1) Display

Features	ip810c	ip820c ip830c		ip840c
Tiltable	×		√ (0-45 degrees)	
Backlight	✓	×	✓	✓
Туре	Two-line LCD monochrome	Two-line LCD monochrome	Graphical LCD monochrome	Graphical LCD grayscale
Characters / pixels	16 characters per line	24 characters per line	128 x 64 pixels	240 x 128 pixels

# (2) Keypad and LEDs

The keypad is grouped in up to 6 functional units:

- a) Navigation Keys
- b) Alphanumeric Keys
- c) Audio Device Control Keys
- d) Free Function Keys + LEDs
- e) Preprogrammed Function Keys
- f) Context-Sensitive Function Keys

Each unit is explained in the following chapters in detail.

### (2a) Navigation Keys

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

	ip810c - ip820c - ip830c - ip840c					
Cancel	Up	Down	Left	Right	Confirm	
X					$\checkmark$	

# (2b) Alphanumeric Keys

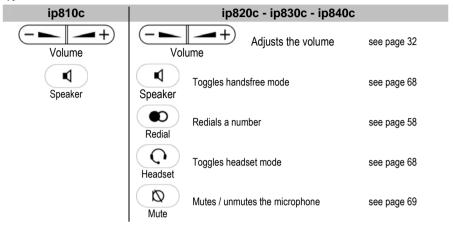
Use the alphanumeric keys to enter numbers, letters and special characters. Depending on the selected input mode (see page 51) you can enter digits and small and capital letters.

Input mode	ip810c - ip820c - ip830c - ip840c			
	1	(ABC 2)	DEF 3	
Digits	1	2	3	
Upper case	Special characters <sup>1</sup>	ABC2	DEF3	
Lower case		abc2	def3	
	(gHI 4)	JKL 5	(MNO 6)	
Digits	4	5	6	
Upper case	GHI4	JKL5	MNO6	
Lower case	ghi4	jkl5	mno6	
	PQRS 7	(TUV 8)	wxyz 9	
Digits	7	8	9	
Upper case	PQRS7\$	TUV8	WXYZ9	
Lower case	pqrs7\$	tuv8	wxyz9	
		0		
Digits		0		
Lower / Upper case		"space","_","0"		

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

#### (2c) Audio Device Control Keys

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



### (2d) Free Function Keys

Free Function Keys are freely programmable keys which can be used for various functionalities (see page 38). The adjacent LED will light when the assigned functionality is turned on.

\ 1 0					8		
	ip810c			ip	820c - ip830c - ip8	340c	
					Label	LED7	P7
		P1	P1	LED1	Label		
LED1	L1				Label	LED8	P8
		P2	P2	LED2	Label		
LED2	L2				Label	LED9	P9
		P3	P3	LED3	Label		
LED3	Redial				Label	LED10	P10
		P4	P4	LED4	Label		
LED4	Directory				Label	LED11	P11
		P5	P5	LED5	Label		
LED5	Transfer				Label	LED12	P12
		P6	P6	LED6	Label		
LED6	Mute					•	

#### (2e) Preprogrammed Function Keys

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

	ip820c - ip830c - ip840c	
Redial	Redials a number	see page 58
Directory	Calls up the phone directory	see page 77
Transfer	Transfers calls (if supported by your PBX)	see page 72
Menu	Not preprogrammed	
Conference	Establishes a three-party conference call	see page 73
Hold	Places a call on "Hold" or resumes it	see page 71
Settings	Calls up the "Settings" menu for configuration changes	see page 24
Record	Switches call recording on and off (if supported by your PBX)	see page 74
? Help	Calls up information about the phones: IP address, MAC Address, and Firmware Version	see page 25
3	Not preprogrammed	
DND	Switches "DND" mode on and off	see page 64
Retrieve	Retrieves messages from the voice mailbox (if supported by your PBX)	see page 83

# (2f) Context-Sensitive Function Keys

The ip820c, ip830c, and ip840c 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 17).

For the complete mapping see page 87 "Mapping of Context-Sensitive Function Keys".

#### (2g) Message LED

The "Message LED" is primarily used to signalize new voice messages stored on the mailbox of your PBX, (see page 83 "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 → see page 85 "Extension Monitoring and Call Pickup") and to signalize missed calls.

□ Setup Preferences General Information
 Message LED for Dialog State/Missed Calls: <ON>

#### (2h) Call Indication LED

The "Call Indication LED" is only available on the ip840c. 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 (3f) and microphone (3g)

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 68.

You can only use one microphone for talking, but two speakers for listening:

- Handset speaker / casing speaker or
- Casing speaker / headset speaker

For further details see page 70

#### **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 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 21
Web user interface		All basic and advanced settings     No call functions except initiating & terminating calls	See page 25

#### **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 44 / 45.

① Note: The default administrator password is "0000" (four zeros).

#### **Documentation**

The following table shows all documentations available for Doro phones.

Name	Contents	Where found	Format/ Language	
Quick Start Guide	Contents of delivery and basic set up of phone	In phone package	-	
User Manual      Phone user interface settings     Web user interface settings     Basic phone and call functions      Download     Multilingual				
① Note: For a complete set of user manuals refer to: http://www.doro.com/				

# **Getting Started**

### **Phone Installation**

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

Installation Step	ip810c	ip820c	ip830c	ip840c
Check contents of package	$\triangle$	$\triangle$	$\bigcirc$	$\bigcirc$
Attach the footstand for horizontal placement	B	factory fitted	factory fitted	factory fitted
Connect the following components to your phone	0	B	B	®
We recommend this order:	2. Networ 3. Power 4. Option 5. Option	et via handset coro k via Ethernet cab supply ial: PC <sup>5</sup> via Ethern ial: Headset <sup>5,3</sup> ial: Expansion mo	et cable <sup>5</sup>	
Adjust the display angle	Not applicable	0	0	0
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.	<b>(D)</b>	(D)	0	0

① **Note**: The phone can be powered either from the network (PoE: IEEE 802.3 af) or from a 5-V DC power adapter. Only use the 5-V DC adapters (power supplies) listed below or an adapter approved by your local reseller.

Power Rating
10,5 W 90-264V AC / 5,25V DC

11

<sup>&</sup>lt;sup>2</sup> Not included in delivery

<sup>&</sup>lt;sup>3</sup> Optional component

#### **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 and set the phone back to factory values.

ip810c	ip820c	ip830c	ip840c
<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:
For further information read the instructions in our administrator manual. http://www.doro.com/voipsupport/ip8X0c/			

### (3) Automatic Phone Initialization

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

ip810c	ip820c	ip830c	ip840c
System booting. Please wait	System is booting up. Please wait	System is booting up. Please wait	System is booting up. Please wait

#### (3a) DHCP Request

By default the phone attempts to contact a **DHCP4 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.

<sup>&</sup>lt;sup>4</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.)

ip810c	ip820c	ip830c	ip840c
IP-Adr:	IP-Adr:	IP-Adr:	IP-Adr:
192.168.X.X	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 "(3a) Manual DHCP Setup" on page 14.

#### (3b) 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 read the instructions in our administrator manual

# (3) Manual Phone Initialization

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

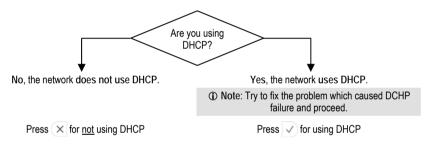
#### (3a) Manual DHCP Setup

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

ip810c	ip820c	ip830c	ip840c
Sending DHCP Re	Sending DHCP Request	Sending DHCP Request	Sending DHCP Request
	Press	Cancel	•

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



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!

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

#### (3b) 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.

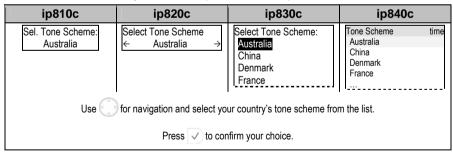
ip810c	ip820c	ip830c	ip840c
Firmware Versions below 7 provide integrated multiple language support.		Not applicable	
Note: Since Firmware Version 7 additional languages can only be provided via mass deployment.      For further information read the instructions in our administrator manual		Integrated 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.			the list.
Press v to confirm your choice.			

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

#### Tone Scheme

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

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



**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)

ip810c	ip820c	ip830c	ip840c
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 you	ur country's tone scheme from	m the list.
	Press V to con	firm your choice.	

Result: The time zone has been configured.

#### (3c) Logon Wizard

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

Action: Enter the Logon Wizard

ip810c	ip820c	ip830c	ip840c
This step is skipped.	This step is skipped.	Welcome! Press a key to log on. Press	time Welcome! Press a key to log on. a key.

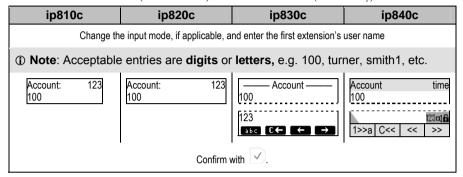
**Result:** The "Logon Wizard" will guide you through the manual configuration steps for setting up your first extension (SIP identity).

- ① **Note**: Please use the logon information provided by your system administrator or Internet Telephony Service Provider (ITSP).
- For further information read the instructions in our administrator manual

#### Account (SIP username)

This setting determines the **account** that is part of the SIP address format (SIP- URI<sup>5</sup>: "account@registrar").

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

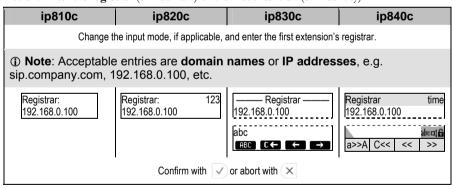


**Result:** The account of the first extension has been configured.

### 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)



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

<sup>&</sup>lt;sup>5</sup> Uniform Resource Identifiers are used to identify or name a resource (e.g., e-mail, SIP) on the Internet.

# 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**. 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 88). The complete status message sent by the SIP registrar in plain text can be evaluated on the web user interface:

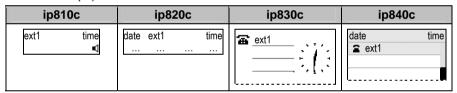
■ Statuş System Information SIP Identity Status

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

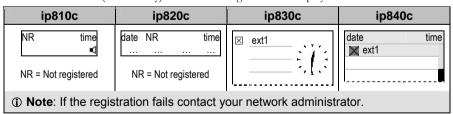
### Successful Registration

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:



# **Unsuccessful Registration**

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

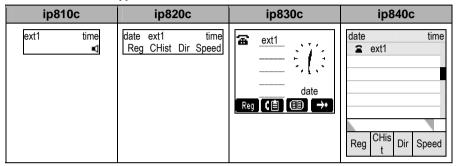


#### Idle Screen

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 88.

#### **Default Idle Screen**

The default idle screen appears as shown below:



#### **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:

ip810c	ip820c	ip830c	ip840c
□ Setup Identity X Login	Display Text for Idle Screen:	<pre><your idle="" screen="" text=""></your></pre>	
① Note: Texts exce	eding the maximum	will be cut off.	

# **Context-Sensitive Function Keys**

**ip820c, ip830c, and ip840c:** The functionality of the context-sensitive keys (see page 8 and 87) for the idle screen can be changed:

ip810c	ip820c	ip830c	ip840c
Not supported	See page 87 for availa setting:	ble functions: 🗕 Setup Functi	ion Keys: S1S4. Default
	Reg	CHist	Dir Speed

#### XML Idle Screen

**ip830c** 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 51) 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.

For further information read the instructions in our administrator manual. http://www.doro.com/voipsupport/ip8X0c/

ip810c	ip820c	ip830c	ip840c
Not supported	Not supported	■ Setup Identity X Login XML Idle Screen URL: <ur http:="" myserver="" screen1.xm<="" td=""><th>L&gt;, e.g.</th></ur>	L>, e.g.

# **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.

ip810c	ip820c	ip830c - ip840c
Call Forwarding	Call Forwarding	1 Display
<b>★</b> Off	S1 * Off	1 Contrast
Time	S2 Time	Change Contrast
Timeout Target / Call Fwd	Timeout Target / Call Fwd Time	2 Backlight
Time	S3 Always	<b>★</b> On / Off / Always
Always	Enter Always Target	2
Enter Always Target	S4 Busy	2 ringtone
Busy	Enter Busy Target	1 Choose Reg / ringtone
Enter Busy Target	Phone Behavior	3 Audio
Phone Behavior	S1 CWI	1 Headset Device
CWI	*On / Off	<b>★</b> Off / On
*On / Off	S4 FKeys	2 MWI Notification
,	Select Function Key / Key Type /	<b>★</b> Silent / Beep / Reminder
FKeys	Number	
Select Function Key / Key Type / Number		4 Preferences
Type / Number	General Settings	1 Language
General Settings	S1 Lang	Select Language
Lang	Select Language	2 Time Zone
Select Language	S4 Contrast	Select Time zone
Contrast (only ip810c w/o	Change Contrast	3 Tone Scheme
backlight)	0 5 1:	Select Time zone
Change Contrast	Configuration	E I den Mike
	S1 Reg	5 Identity
Headset Device	Presence	1 Outgoing Identity
* Off / On	Ringer	Select ID for outgoing calls
	S2 Reset	2 Reregister User
Volume Settings	Resets the phone	Select ID for reregistering
Hand	S3 Reboot	3 Edit User
Change Volume	Reboots the phone	Select ID → Edit "Account" → Edit
Head	S4 DHCP	"Registrar" 4 Logoff User
Change Volume	DHCP Setup	
Speaker	Headset Device	Select ID for logging off
Change Volume	S1*Off / S2 On	5 Logoff All
	314011/32011	Log off all IDs?

#### ip810c ip820c ip830c - ip840c Other Settings Volume Settings 6 Phone Behavior 1 Hide own outgoing ID Time Zone S1 Handset Select Time Zone Change Volume On / \*Off S2 Headset 2 Reject anonymous Tone Scheme Change Volume On / \*Off Select Tone Scheme S4 Speaker 3 Auto Dial Web Interface Change Volume \*Off / after 2,5,10,15 Sec. Server 4 Auto Answer Indication Other Settings \*HTTP & HTTPS / Off / HTTP On / \*Off Only / HTTPS Only S1 Time Zone 5 Auto Answer Type HTTP Select Time Zone Handsfree / Handset HTTP Port S4 Tone Scheme 6 Call Completion HTTPS Select Tone Scheme On / \*Off HTTPS Port 7 Number Guessing Web Interface On/ \*Off S1 Server **VLAN Settings** 8 Call Waiting ID \*HTTP & HTTPS / Off / HTTP On / Visual Only / Ringer Only / HTTPS Only Enter VLAN ID S2 HTTP 9 Deny All Priority On / \*Off HTTP Port Enter VLAN Priority S4 HTTPS Reset 7 Call Forwarding HTTPS Port Resets VLAN Settings 1 Call Forwarding Event Never / Always / When Busy / VLAN Settings System Info On Timeout S1 ID Network 2 Call Forwarding Time Enter VLAN ID Displays Network Info Enter Timeout (sec) for CFwd Event S2 Priority Memory "On Timeout" Enter VLAN Priority Displays Memory Info 3 Always Target S4 Reset Enter target number for CFwd Event Information Resets VLAN Settings "Always" **IPAddr** 4 Busy Target System Info Displays IP Address Enter target number for CFwd Event S1 Network "When Busy" Displays Network Info Displays MAC Address 5 Timeout Target

Enter target number for CFwd Event

"On Timeout"

S4 Memory

Displays Memory Info

Version

Displays Version

# ip830c - ip840c

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 Server 1
Enter DNS Server 1
8 DNS Server 2
Enter DNS Server 2
9 NTP Server
Enter NTP Server
10 Webserver Type
★HTTP & HTTPS / Off / HTTP Only / HTTPS Only
11 HTTP Admin
Enter NTP Server
12 HTTP Password
Enter HTTP Password
13 Setting Server
Enter Setting Server URL
14 VLAN ID (0-4095)
Enter VLAN Identity
15 VLAN Priority (0-7)
Enter VLAN Priority
16 Reset VLAN
Reset VLAN

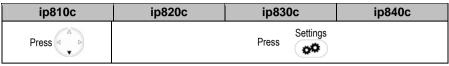
# ip830c - ip840c

9 Key Mapping
1 Select Key → Key Type → Number

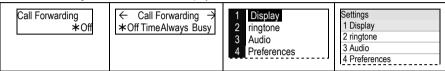
10 Maintenance
1 User / Administrator Mode
Toggles User Mode
2 Net Info
Displays Network Info
3 Mem Info
Displays Memory Info
4 Reboot
Reboots the phone
5 Reset Values
Resets the configuration

## **Settings Menu**

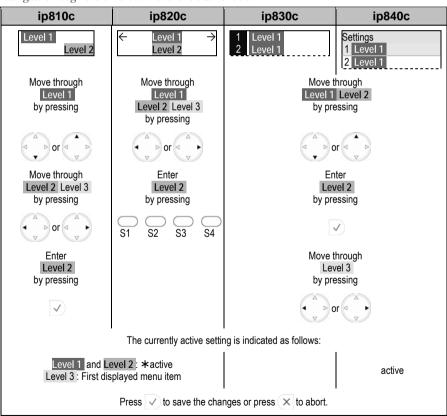
Action: Enter the phone's "Settings Menu" to perform manual changes to your phone configuration.



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



Navigate through the different menu levels as follows:

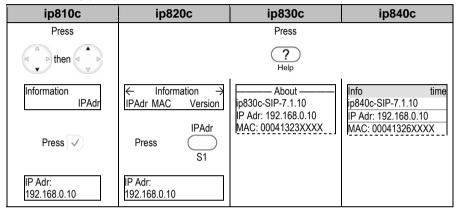


#### Web User Interface

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

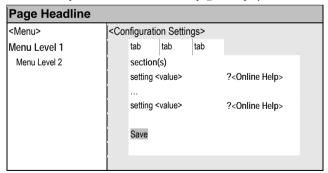


Result: The IP address of your phone is displayed, e.g. 192.168.0.10

Action: Access the web user interface of your phone

ip810c	ip820c	ip830c	ip840c
Open the web browser of your computer. Enter the IP address in the browser's address bar: "http:// <ip address="">" or "<ip address="">", e.g. "http://192.168.0.10" or "192.168.0.10". Confirm.</ip></ip>			

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



the setting's function in our online knowledge database.

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

# **Phone Configuration Changes**

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

ip810c	ip820c	ip830c	ip840c		
⊒ Menu L	The following syntax will be used throughout this manual:  ☐ Menu Level 1 → Menu Level 2 → Tab/Section → Setting: <value>, e.g.:  ☐ Setup → Identity 1 → SIP → Proposed Expiry: &lt;1 Day&gt;  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</value>				
① Note: Some setting changes require a reboot of your phone (see page 28)					

# **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.

ip810c	ip820c	ip830c	ip840c
Firmware Versions below 7 provide integrated multiple language support for both phone and web user interface			Not applicable
① Note: Since Firmware Version 7 additional languages can only be provided via mass deployment.  ② For further information read the instructions in our administrator manual. http://www.doro.com/voipsupport/ip8X0c/			Integrated multiple language support for both phone and web user interface

### **Phone User Interface Language**

Action: Change the language of the phone user interface

ip810c	ip820c	ip830c	ip840c	
☐ Setup Preferences General Information Language: <your language=""> or</your>				
General Settingş Language		Preferenceş 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

ip810c	ip820c	ip830c	ip840c
□ Setup → Preferences → General Information → Web Interface Language: <your language=""></your>			

**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

ip810c	ip820c	ip830c	ip840c
■ Setup Advanced Network Time Time zone: <your time="" zone=""> or</your>			
Other Settingş Time Zone		☎ Preference	eș Time Zone

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

- ① **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.

- ① **Note**: 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

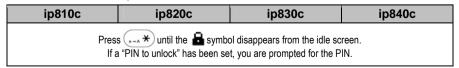
Action: Activate the keyboard lock

ip810c	ip820c	ip830c	ip840c
Press (♣^ ★) until the 🔓 symbol is displayed.			

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

#### Unlocking

Action: Deactivate the keyboard lock



**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

ip810c	ip820c	ip830c	ip840c
■ Setup Preferenceş Ger	neral Information Number Di	splay Style:	
<pre><full contact="">:   <name>:   <number>   <name+number>   <number+name></number+name></name+number></number></name></full></pre>	The complete SIP-URI is st Only the SIP display name Only the number is displaye Name and number are disp Number and name are disp	is displayed ed layed	
Example: The SIP-URI "Jo	hn Smith" <sip:100@sip.com< td=""><th>pany.com&gt; will be displayed</th><td>as:</td></sip:100@sip.com<>	pany.com> will be displayed	as:
<pre><full contact="">: <name>: <number> <name+number> <number+name></number+name></name+number></number></name></full></pre>	"John Smith" <sip:100@sip John Smith 100 John Smith 100 100 John Smith</sip:100@sip 	.company.com>	

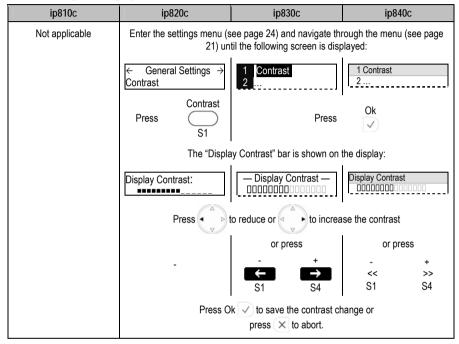
**Result:** The display format of extensions is changed.

# **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.

### **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

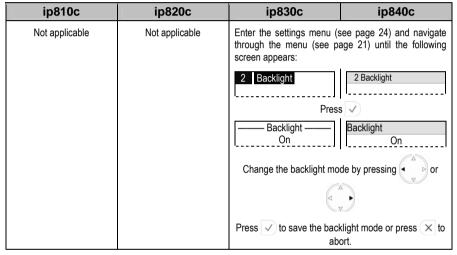
o ip830c: Backlight is turned off completely.

o ip840c: Backlight is dimmed.

• Off: Backlight is turned off completely

• Always: Backlight is on permanently.

Action: Change the backlight mode.



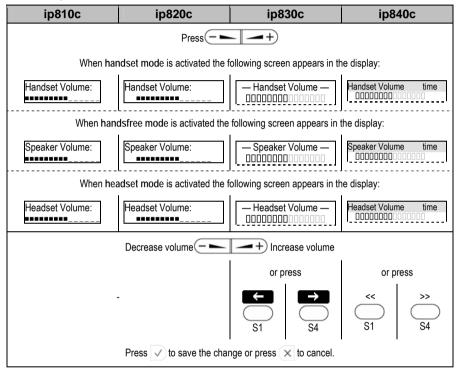
Result: The backlight mode has been changed.

# **Audio Configuration Tasks**

#### Volume

You can adjust the volume of the currently used audio device when the phone is in "dialing" mode (see page 54) or during an active call (see page 68).

Action: Adjust the volume of the active audio device.



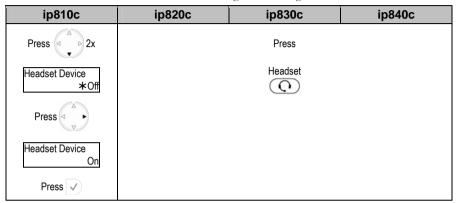
Result: The volume of the active audio device has been adjusted.

## **Headset Use**

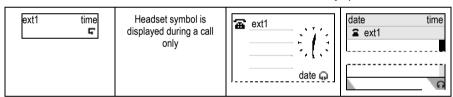
Physically connect your headset (see page 11) and activate/deactivate it for use.

### Activation

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

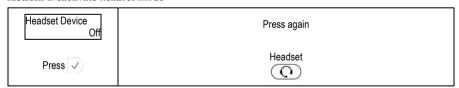


Result: Headset mode has been activated. This is indicated on the display as follows:



### Deactivation

Action: Deactivate headset mode



Result: Headset mode has been deactivated.

# Ringtones

Ringtones are used to indicate incoming calls (see page 59).

## 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" contains URL of a custom melody ringtone file
   Setup → Advanced → Audio → Alert-Info playback: <ON>
- 2. SIP- Header "Alert-Info" refers to 10 built-in ringtones + Silent
  - Setup → Preferences → Alert-Info Ringer →

Alert Internal / External / Group Text: <Text used in "Alert-Info" to assign a ringtone to internal / external / group calls>

Alert Internal / External / Group Ringer: <Ringer 1-10; Silent>

### For phone users:

- 3. Contact types in the directory (see page 77) 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>

- 5. Default ringtone can be mapped to 10 built-in ringtones+ Silent
  - Setup → Preference → Default Ringer: <Ringer 1-10; Silent>

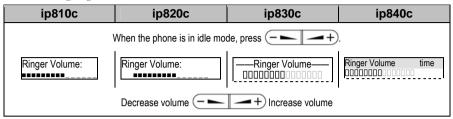
① **Note**: Users are recommended to map ringtones either to different extensions (4) or different contact types in the directory (3).

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).

#### Volume

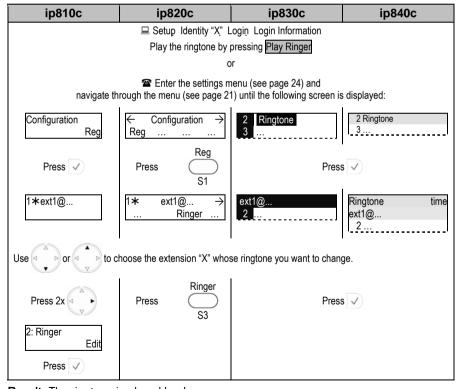
Action: Adjust the volume of the ringtone assigned to the extension (SIP identity) currently active for outgoing calls.



**Result:** The volume of the ringtone has been adjusted.

## **Playback**

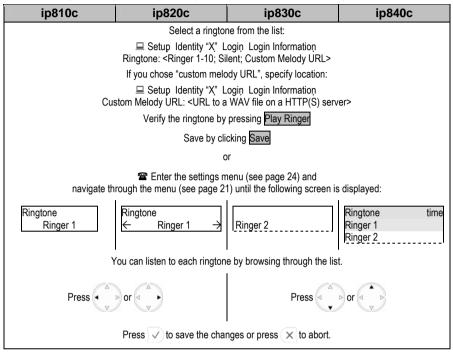
**Action:** Play back the ringtone assigned to your extension "X" (SIP identity "X").



**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 59) if no higher prioritized ringtone is assigned (see page 34).

# **SIP Identity Configuration Tasks**

Doro 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 18), calls can be placed from and received to these extensions.

ip810c	ip820c	ip830c	ip840c
4 extensions (SIP Identity 14)		12 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).

☐ For further information read the instructions in our administrator manual.

http://www.doro.com/voipsupport/ip8X0c/

# Adding / Editing Extensions

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

ip810c	ip820c	ip830c	ip840c		
Verify the status and availability of your extensions:  ☐ Statuş System Information SIP Identity Status					
Registr	Add / Edit the following identity information  Setup Identity "X" Login Tab Login Information Account (SIP Username), e.g. 100, turner, smith1, etc. Password (SIP Password)  Registrar (SIP Domain/ Server), e.gcompany.com, 192.168.0.100, etc.				
Save your changes by clicking Save					
① Note: This action requires a reboot of your phone (see page 28)					

**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 51.

# **Blocking Extensions**

Action: Block an extension (SIP identity) temporarily

ip810c	ip820c	ip830c	ip840c
□ Setu	p Identity X Login Tab Logi	n Information Identity active:	<off></off>

**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 75).

## Single Extension

Action: Remove single extension "X" (SIP Identity "X")

ip810c		ip820c	ip830c	ip840c
	₽ S	etup Identity X Login Tab L	ogin Information Remove ide	entity

**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.

ip810c	ip820c	ip830c	ip840c
□ Setu	up Identity X Login Tab Log	gin Information Remove all ide	entities

**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 16) will be shown on the display.

This behavior can only be disabled via mass deployment: 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.

ip810c	ip820c	ip830c	ip840c
6 free function keys P1P6		12 free function keys P1P12	2

 $\Phi$  **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 51).

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).

## **Type**

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". See chapter "Key Types" for further details.

#### Number

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

# **Key Types**

The following free function key "Types" are available.

For further information read the instructions in our administrator manual. http://www.doro.com/voipsupport/ip8X0c/

#### Line

Dependencies: Context: <SIP Identity> or <Active>; 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 the free function "Line" key to accept the call, see page 59 / 61.

- Press the free function "Line" key again to place the call on hold, see page 71
- Press the free function "Line" key again to resume the call, see page 71

#### Making a call:

 Press a free function "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 51

#### Extension

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

**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 85
  - ① Note: Your VoIP PBX must support this function (RFC 4235 compliant)
- Speed Dial Key: Press a free function "Extension" key during idle state to dial the extension specified under "Number".
- Manual Call Forwarding: Press a free function "Extension" key to transfer an incoming call to the extension specified under "Number" without answering it first.

#### Intercom

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

The following settings must have been configured in advance:

Your phone: 

Setup → Advanced → Behavior → Enable Intercom: <0N>

Other phones: 

Setup → Advanced → Behavior → Auto Answer Policy: <Always>

Dependencies: Context: <SIP Identity> or <Active>; 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 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.
- Disable Intercom mode: Terminate the intercom call as usual (see page 56)

#### **Park Orbit**

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

Dependencies: Context: <SIP Identity>; Number: <park orbit extension (SIP account)>

**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 free function "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 free function "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", a list of parked calls will be displayed and the appropriate
  call can be picked from that list.

### Voice Recorder

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

Dependencies: Context: <SIP Identity>; Number: <voice recorder extension (SIP account)>

**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 free function "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**

**Dependencies:** Context: **<Active>**; 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.

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

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

#### **Shared Line**

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

Dependencies: Context: <SIP identity>; Number: <BLA / SLA resource URI >

**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.

For further information read the instructions in our administrator manual. http://www.doro.com/voipsupport/ip8X0c/

#### Push2Talk

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

The following settings must have been configured in advance:

Your phone: 

Setup → Advanced → Behavior → Enable Intercom: <0N>

Other phones: 

Setup → Advanced → Behavior → Auto Answer Policy: <Always>

Dependencies: Context: <SIP Identity> or <Active>; Number: <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 released as soon as the free function "Push2Talk" key is released. The adjacent LED will be turned off.

#### **Action URL**

Dependencies: Context: <Active>; Number: <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 79) applications.

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

For further information read the instructions in our administrator manual. http://www.doro.com/voipsupport/ip8X0c/

## **Key Event**

**Dependencies:** Context: <SIP Identity> or <Active>: Number: <key event short cut>

**Description:** Key events are predefined shortcuts to phone and call functions. See the complete mapping on page 88.

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

## **Speed Dial**

Dependencies: Context: <SIP Identity> or <Active>; Number: <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 free function "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

ip810c	ip820c	ip830c	ip840c	
■ Setup Advanced QoS/Security Administrator Password: <your password=""></your>				
□ Setup Advanced QoS/Security Administrator Password (Confirmation): <your password=""></your>			assword>	
Save by clicking on Save				

**Result:** The administrator password has been changed.

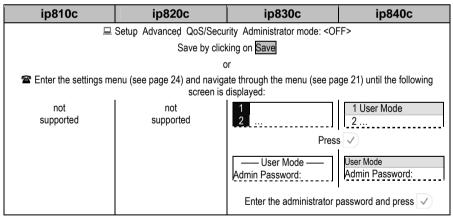
## **Operation Modes**

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 User Interface or Phone User Interface

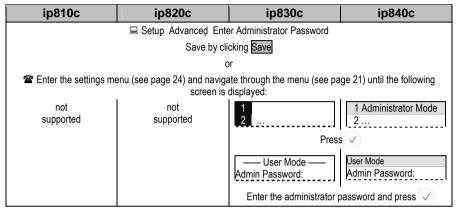


Result: User Mode has been enabled.

### **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



Result: Administrator Mode has been enabled.

## **Firmware Update**

The phone is delivered with pre-installed software (firmware) which allows operating your phone flawlessly. However, it is recommended to maintain the phone's firmware up-to-date by using the latest official release published on Doro's website:

http://www.doro.com/

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

#### 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.
- n **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  $\rightarrow$  automatic updates instead.
- Automatic update: This method updates your phone firmware to the current official release.

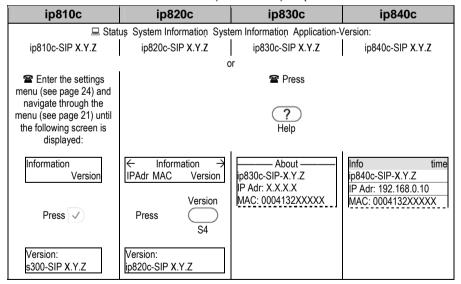
### Manual update

(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



**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 Doro's website <a href="http://www.doro.com/">http://www.doro.com/</a> 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 ip830c is 7.1

- ip830c (1): Installed: ip830c-SIP 4.5 → use automatic update
- ip830c (2): Installed: ip830c-SIP 6.2.2 → manual update can be used

## Firmware Update

Action: Conduct a manual firmware update

ip820c	ip830c	ip840c	
Navigate to Doro's firmware download website <a href="http://www.doro.com/">http://www.doro.com/</a>			
Copy the link (URL) of the appropriate firmware version X.Y.Z by right-clicking on the "File" Symbol \(\text{D}\)			
Туре	File	Size	
applications	□.bin	<file size=""> MB</file>	
	ate to Doro's firmware down the appropriate firmware ve Type	ate to Doro's firmware download website <a href="http://www.doro">http://www.doro</a> the appropriate firmware version X.Y.Z by right-clicking of Type  Type  File	

Access the phone's web user interface

□ Setup Software Update Manual Software Update Setup Firmware and paste the link into the "Firmware" field.

Start the update by clicking on Load

The phone reboots 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 Doro's web server. This process may take some time depending on the <File Size> and the speed of your internet connection.

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 again and 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 46.

## **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

ip810c	ip820c	ip830c	ip840c

For further information read the instructions in our administrator manual.

http://www.doro.com/voipsupport/ip8X0c/

Copy the link of the appropriate update method (recommended "Update once to current official firmware release"):

Access the phone's web user interface (below Version 7):

□ Setup Advanced Update Setting URL and paste the link into that field.

Save the change by clicking on Save and start the update by clicking on Reboot

The phone reboots automatically

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.

The phone automatically loads the necessary software from Doro's web server successively. The whole update process may take some time.

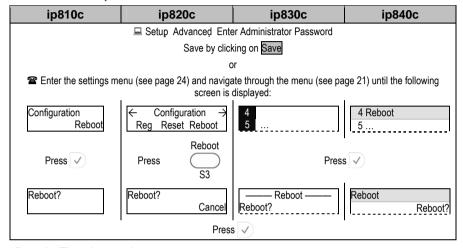
The phone will be initialized using the previously stored phone configuration.

**Result:** The firmware is updated. You can verify the successful update as described in chapter "Version Check" on page 46.

### Reboot

 $\textcircled{\scriptsize{\textbf{0}}}$  Note: You should reboot the phone when you are challenged, e.g. after applying changes to the phone configuration

Action: Reboot the phone.



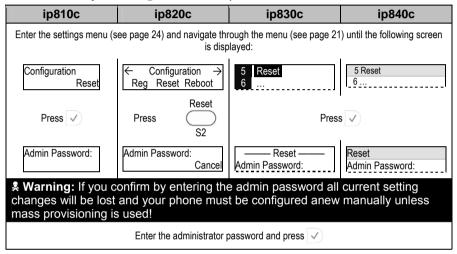
Result: The phone reboots.

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 advised you to do so.

Action: Reset the phone configuration to factory values



**Result:** The phone reboots and the phone configuration is resetted.

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

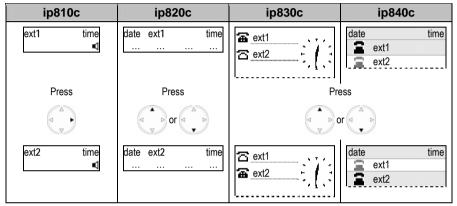
# **Basic Call Functions**

# **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.



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

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

Result: The highlighted extension ( ) 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 52). Use the appropriate audio operation mode (see page 54) for dialing.

# **Supported Formats**

The following types of numbers/addresses can be dialed.

### Phone Numbers

ip810c	ip820c	ip830c	ip840c	
Phone numbers; format is specified in E.164, e.g. 0049030398330 or +4930398330				
·	<ul> <li>Use the alphanumeric keys 1 to0, see page 6.</li> <li>Use numeric input mode [123], see page 53</li> </ul>			

## SIP Addresses (SIP-URI)

ip810c	ip820c	ip830c	ip840c		
SIP addresses; SIP-URI format is specified in RFC 3261, e.g. 123456@domain.com abcd@192.168.0.2 etc.					
Use the alphanumeric keys 1 to0, see page 6.					
• Use numeric input mode [123], see page 53, and/or alphanumeric mode [abc / ABC], see page 52					

# IP Addresses

① Note: We do not recommend the use of IP addresses.

ip810c	ip820c	ip830c	ip840c			
IP addresses; IPv4 specification, e.g. 192.168.0.2 etc.						
Use the alphanumeric keys 1 to0, see page 6.						
Use numeric input mo	ode [123], see page 53					

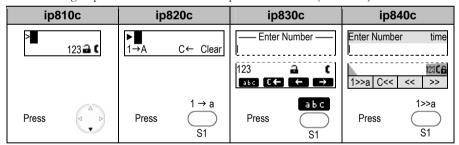
## **Input Mode**

The default input mode is the **numeric** mode.

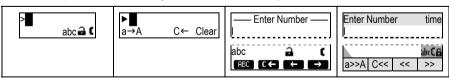
① **Note**: Change the input mode in accordance with the type of number to be dialed. The last input mode will remain active.

## Numeric Mode to Alphanumeric Mode (Lower case)

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

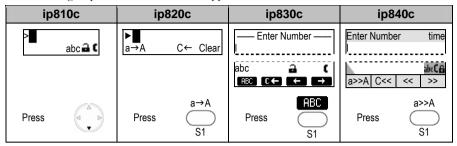


Result: The input mode has been changed to lower case. The display shows:

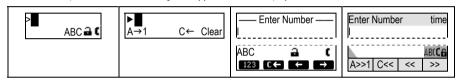


## Lower Case to Upper Case

Action: Change input mode from lower to upper case



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



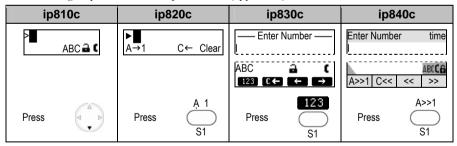
Action: Toggle between lower case and upper case input mode

ip810c	ip820c	ip830c	ip840c
	Press (	a-A *	

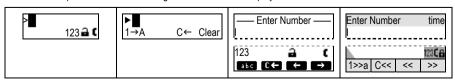
**Result:** The input mode is toggled between lower and upper case. The phone displays the current input mode.

## Alphanumeric Mode (Upper Case) to Numeric Mode

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

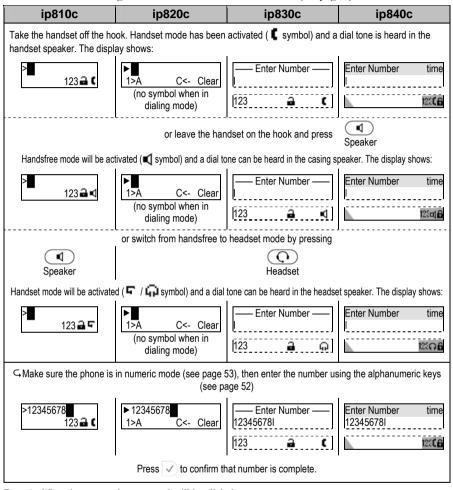


Result: The input mode has been changed to numeric. The display shows:



## **Audio Operation Mode**

**Action:** Make a call using handset, handsfree, or headset mode (see page 9)



**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:

	830c	ip840c			
Enter the number to be dialed.					
		Enter the number to be dialed. ift the handset or press			

**Result:** The phone begins to dial.

# **Auto Completion (Number Guessing)**

① **Note**: The following setting must have been provisioned in advance:

□ Setup → Advanced → Behavior → Number Guessing: <ON>

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

**Action:** Dial a supported format (see page 51) using auto completion (number guessing)

ip810c	ip820c	ip830c	ip840c		
Enter a supported format (number or name → 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 78) and the phone directory (page 77) 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 

The highlighted entry can be dialed by pressing 
or continue entering numbers/letters

Action: Turn off auto completion (number guessing) temporarily

ip810c	ip820c	ip830c	ip840c
	Press		
	1 1633	V	
		or press	or press
		<del>-</del>	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:

ip810c	ip820c	ip830c	ip840c
, .	vior Call Completion: <on> vior Peer to Peer Call Compl</on>	etion: <on></on>	

# When "Busy" (CCBS)

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

#### Activate CC

**Action:** Activate call completion when called party **extB** is busy

ip810c	ip820c	ip830c	ip840c	
Activate Call Completion?	Activate Call Completion Cancel	Busy — Activate Call Completion?	Busy time Activate Call Completion?	
Confirm with vor abort with x				

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

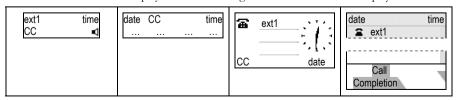
Waiting: extB	Waiting: extB	— Call Completion —	Call Completion time
	Cancel Ok	Waiting: extB	Waiting: extB

## While Waiting

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

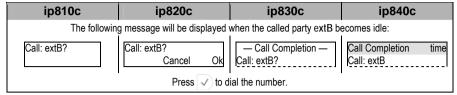
ip810c	ip820c	ip830c	ip840c
	Press v to retur	n to the idle screen	

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



## Call Completion

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



**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!

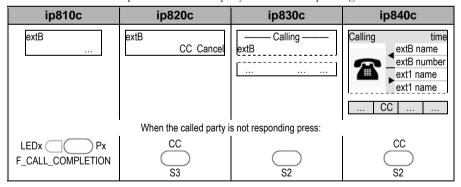
The following settings must have been provisioned in advance:

## ip810c only:

- Setup → Function Keys → Px → Context: <Active>
- Setup → Function Keys → Px→ Type: <Key Event>
- Setup → Function Keys → Px→ Number: F CALL COMPLETION

### Activate CC

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



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

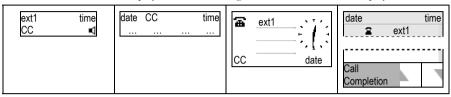


## While Waiting

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

ip810c	ip820c	ip830c	ip840c
	Press v to retur	n to the idle screen	

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



## Call Completion

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

ip810c	ip820c	ip830c	ip840c	
Call: extB?	Call: extB? Cancel Ok	— Call Completion — Call: extB?	Call Completion time Call: extB	
Press v to dial the number.				

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

## **Call Termination**

Action: Terminate a call

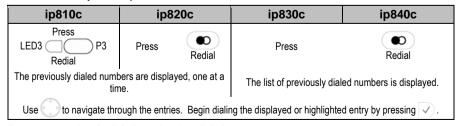
ip810c	ip820c ip830c		ip840c				
(1) Replace	(1) Replace the handset, (2) press the handset hook (see page 9) or (3) press						

Result: The call is terminated.

### Redial

This function allows the redialing of previously dialed numbers (see page 78).

Action: Redial a previously dialed number



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

# **Incoming Calls**

## **Call Indication**

An incoming call is indicated acoustically and visually:

### Acoustic

• Ringtone (see page 33)

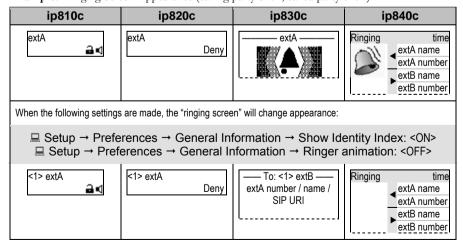
### Visual

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

```
    Note: Use the default settings (see page 39)
    □ Setup → Function Keys → Px:
    Context: <Active>, i.e. the extension for outgoing calls is used Type: <Line>
    Number: <empty>
```

- o "Message" LED, see page 9
- Call Indication LED (ip840c only), see page 9
- Flashing backlight (not available on ip820c), see page 31
- Display
  - o Calling party's extension and optionally calling party's picture
  - 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

ip810c	ip820c	ip830c	ip840c			
Pick up the handset ( enable handset mode)						
or						
press ( enable handsfree mode)						
or						
press (enable handsfree or headset mode, 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:

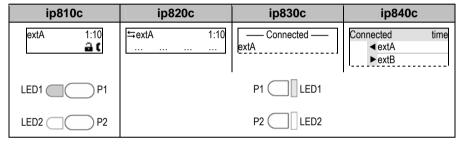
■ Setup → Advanced → Audio → Call Waiting Indication:

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

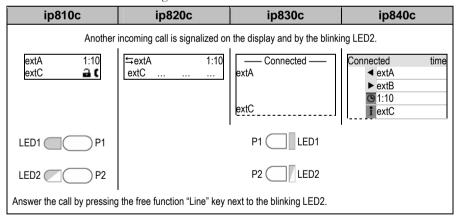
<VISUAL> Further incoming calls are indicated only on the display.

One free function "Line" key per call is required (see page 39).

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



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



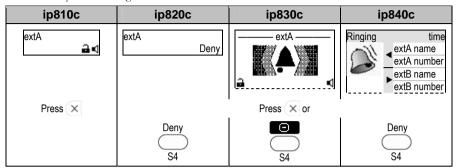
**Result:** The first active call on the free function "Line" key P1 is placed on hold and the 2<sup>nd</sup> incoming call on the free function "Line" key P2 is accepted. This is indicated by a slowly blinking LED1 and a permanent lit LED2. Additionally a tone sequence can be played to remind you of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

# User Manual - English

ip810c	ip820c	ip830c	ip840c	
extC 1:10	⇒extC 1:10	—— Connected —— extC	Connected time	
LED1 P1		P1 LED1		
LED2 P2		P2 LED2		

# **Denying Incoming Calls**

Action: Deny an incoming call to extA

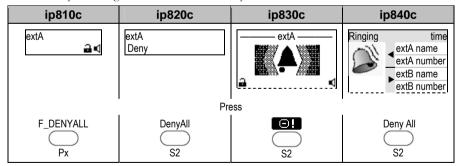


Result: The incoming call has been denied.

# **Denying Incoming Calls Automatically**

Note: The following settings must have been configured in advance (via mass deployment or manually):
 □ Setup → Advanced → Behavior → Deny All Feature: <0N>
 ip810c only:
 □ Setup → Function Keys → Px → Context: <Active>
 □ Setup → Function Keys → Px → Type: <Key Event>
 □ Setup → Function Keys → Px → 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 77). All calls from this number will be rejected automatically.

# **DND (Do Not Disturb) Mode**

- ① **Note**: The following settings must have been provisioned in advance:
- □ Operation → Directory / Address Book → Add or Edit Entry/Contact Type: <VIP>

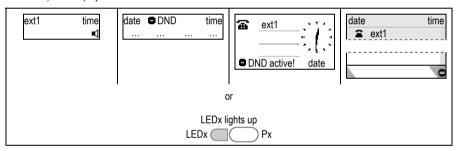
The following configuration is mandatory on ip810c, but optional for ip820c/360/370 if additional feedback via LEDx is desired:

- Setup → Function Keys → Px → Context: <Active>
- $\square$  Setup  $\rightarrow$  Function Keys  $\rightarrow$  Px  $\rightarrow$  Type: <Key Event>
- Setup → Function Keys → Px → Number: F\_DND

Action: Activate DND (Do Not Disturb) Mode

ip81	0с	ip820c		ip830c	ip840c
Pre:	ss Px	Press	DND	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

ip810c	ip820c		ip830c	ip840c
Press LEDx Px	Press	DND	or press	LEDx Px

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

# **Call Forwarding**

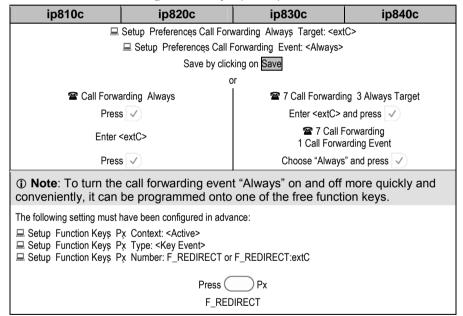
This feature allows you (extB) to forward an incoming call from extA to another phone number (extC), e.g. a cell phone or voice mailbox.

The following call forwarding events can be configured:

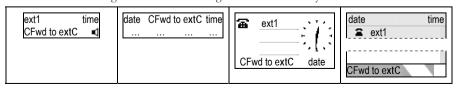
- Off: Call forwarding is deactivated by default.
- Always: Incoming calls are immediately forwarded.
- **Busy:** Incoming calls are immediately forwarded when the phone is busy.
- **Time:** Call forwarding is activated when the time (in seconds) entered has passed without the call having been answered.

### **Always**

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

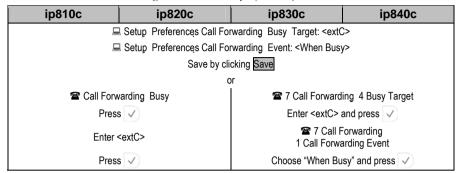


Result: Call forwarding is activated. Incoming calls are immediately forwarded to extC.

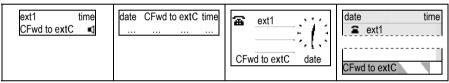


## **Busy**

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

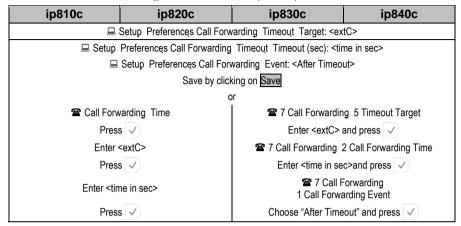


**Result:** Call forwarding is activated. Incoming calls are immediately forwarded to **extC** when the phone is busy.

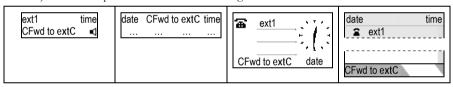


#### **Timeout**

**Action:** Activate call forwarding event "on timeout" (to **extC**)



**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.

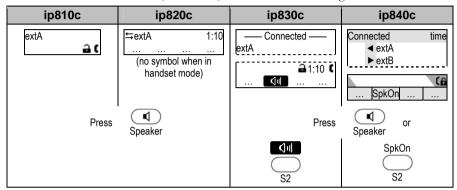


# **Active Calls**

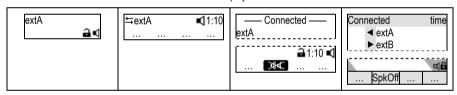
## **Audio Operation Modes**

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

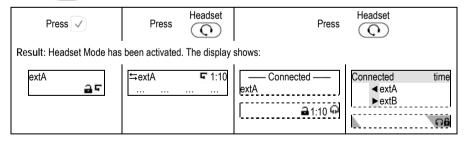
Action: Switch between handset, handsfree, and headset mode during an active call.



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  $\P$  or switch to headset mode:



#### Mute / Unmute

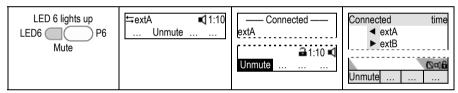
This function allows you to mute the microphone of the active audio device during a call, i.e. the other party cannot hear you. Unmute the microphone to return to normal conversation.

#### Mute

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

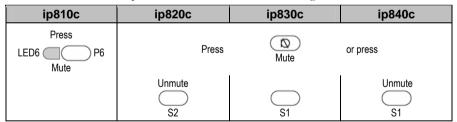
ip810c	ip820c	ip830c	ip840c
Press LED6 P6 Mute	Press	Mute	or press
	Mute S2	S1	Mute S1

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

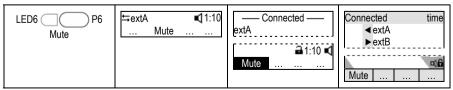


#### **Unmute**

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



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

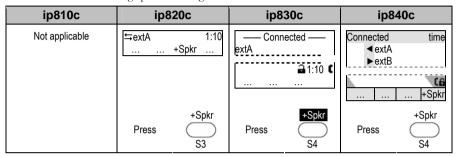


## **Multiple Speaker Mode**

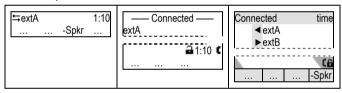
This option is only available during an active call and allows you to use two speakers simultaneously for listening (handset/casing speaker or headset/casing speaker).

## **Enable Casing Speaker**

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



**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.

ip810c	ip820c	ip830c	ip840c
	Press -Spkr	Press S4	Press -Spkr S4

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

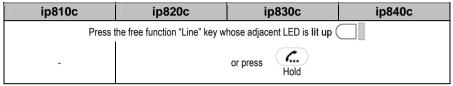


#### **Hold and Resume**

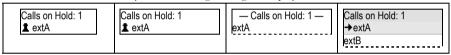
This call function allows you (extB) to place an active call from extA on hold. When placing a call on hold, your IP PBX might play a melody or message to the other party while waiting. Other calls can be received and made while having a call on hold.

#### Hold

Action: Place an active call on hold

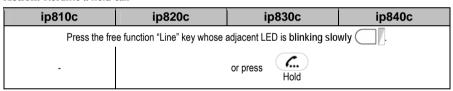


**Result:** The current call is placed on hold. This is indicated by the slowly blinking LED of the free function "Line" key. The following message is displayed:

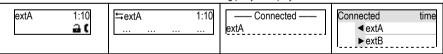


#### Resume

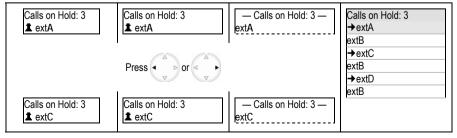
Action: Resume a held call



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



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 .



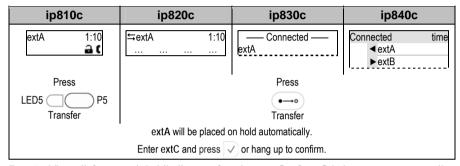
#### **Call Transfer**

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").

① Note: Your VoIP PBX must support this functionality.

#### **Blind Transfer**

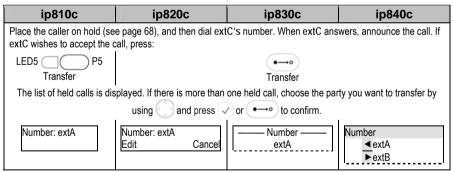
Action: Perform a "Blind Transfer"



**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"



**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)

ip810c	ip820c	ip830c	ip840c
Call extB and place the call on hold (see page 68) Call extC and initiate the conference as follows:			
extC 0:10 Cnf.On a C	Press	Conference	or press
Press 🗸	Cnf.On S4	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
Cnf.Off 3 C	S4

#### Disconnecting

**Action:** Disconnecting a Conference

ip810c	ip820c	ip830c	ip840c
Press	Press	Conference	or press
	Cnf.Off S4	S4	Cnf.Off S4

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

Calls on Hold: 2 <b>1</b> extC	Calls on Hold: 2	— 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 83)

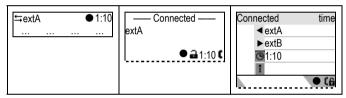
(i) Note: Your VoIP PBX must support this functionality.

#### Turn On

Action: Turn on Call Recording

ip810c	ip820c	ip830c	ip840c
Not supported		Press Record	

Result: Recording starts. A blinking symbol ● is shown in the display while recording.



#### **Turn Off**

Action: Turn Off Call Recording

ip810c	ip820c	ip830c	ip840c
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**

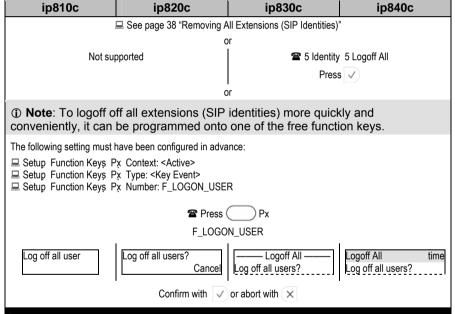
This basic functionality allows logging off existing user accounts (extensions/SIP identities) and logging on new user accounts (extensions/SIP identities).

① **Note**: This feature can be enhanced to allow automatic provisioning of customized phone configuration when different users logon to your phone.

Your VoIP PBX must support this enhanced functionality.

## Logoff All Users (Extensions/SIP Identities)

Action: Logoff all users (extensions/SIP identities)

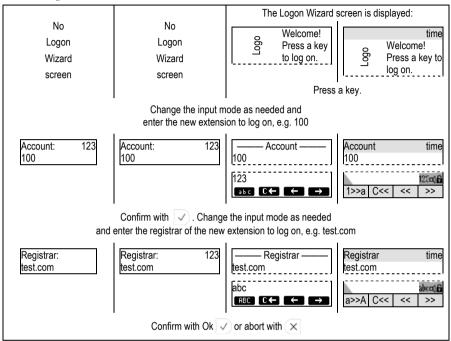


Warning: If you confirm, all currently configured extensions (SIP identities) will be unregistered immediately and their configuration data deleted from the phone.

**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.

## Logon New User (Extension/SIP Identity)

Action: Logon new user



**Result:** The phone attempts to register the new user (see page 18).

- (i) **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 34).

ip810c	ip820c	ip830c	ip840c
	100 entries max.		250 entries max.
Contact Types: Friends, Family, Colleagues, VIP, Deny List			st

- **① Note:** We recommend using the web user interface to add or edit entries, import or delete directory more conveniently:
- Releases < 7: 

  □ Operation → Address Book
- Release 7: 

  □ Operation → Directory
- 🚇 For further information read the instructions in our administrator manual.
- http://www.doro.com/voipsupport/ip8X0c/

#### **Access**

Action: Access the phone directory

ip810c	ip820c	ip830c	ip840c
Press LED4 P4	Press	Directory	or press
Directory	Dir S3	S3	Directory S3

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

#### **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.

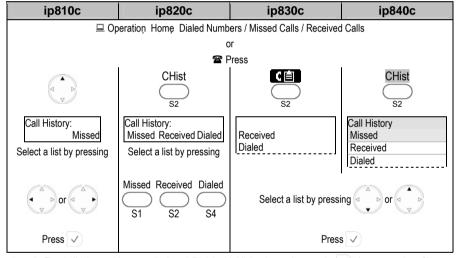
**Note**: When the phone is rebooted, the entries on all lists are cleared. Save them to another file if you need to keep the information.

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

#### **Access**

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



Result: The Call History Lists are displayed. Dial the highlighted entry by pressing . (see page also 58)

#### Minibrowser

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**

ip810c	ip820c	ip830c	ip840c
-	-	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.

ip810c	ip820c	ip830c	ip840c	
The following settings must have been configured in advance in order to access the Minibrowser from the phone				
	user inf			
		s Px Context: <active></active>		
□ Setup Function Keyş Px Type: <action url="">     □ Setup Function Keyş Px Number: <url application="" minibrowser="" to="" xml=""></url></action>		pplication>		
	<b>☎</b> P	Press		
	LEDx	Px		
	Action	n URL		

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

#### **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>
- Setup → Identity X → SIP → Contact List: <0N>
- □ Setup → Identity X → SIP → Contact List URI: <SIP URI>

#### For ip820c / ip830c / ip840c only:

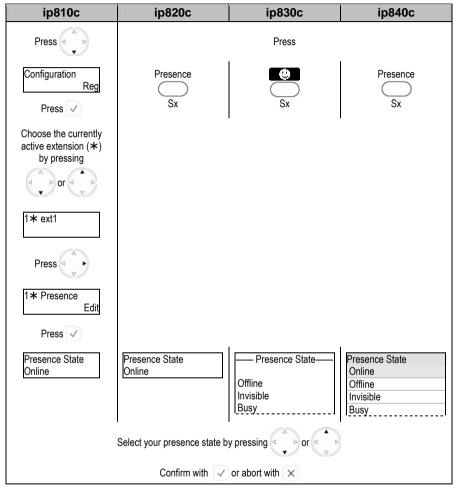
Configure one context-sensitive key S1...S4 to call up the "Presence State" list and another one to call up the "Contacts" list:

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

## **Changing the Presence State**

The default presence state is **Online**, 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: Change your presence state



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

## **Contact Presence**

The **Contacts** list shows the presence state of your contacts without you having to call them. **Action:** Check the presence state of your contacts

ip810c	ip820c	ip830c	ip840c
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	2	Online
я	Offline	Ю	Offline
0	Busy	9	Busy

#### 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.

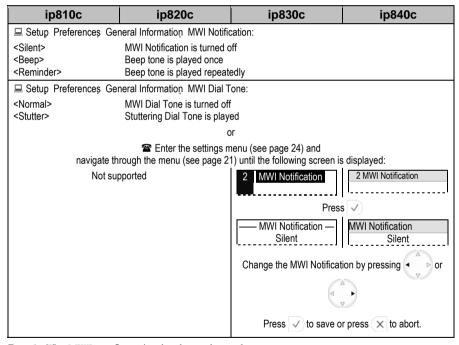
① Note: Your VoIP telephony system must support this functionality.

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



**Result:** The MWI configuration has been changed.

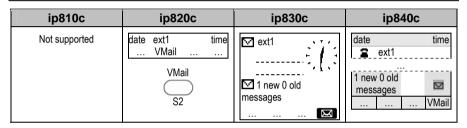
#### **Visual Indication**

#### Message LED

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

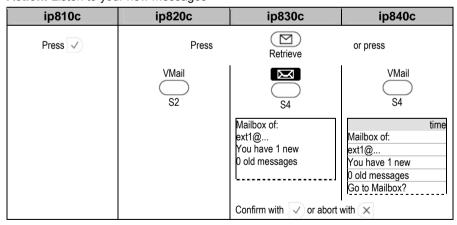
ip810c	ip820c	ip830c	ip840c
	Message		Message
	yellow		red

#### Idle Screen Symbols/Messages



## **Retrieve New Messages**

Action: Listen to your new messages



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

## **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.

① 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 40)

☐ 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.

ip810c	ip820c	ip830c	ip840c
	Idle state→	LED off	
	Ringing state→	LED blinking rapidly	y
В	usy 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 shown on the display (ip830c/ip840c 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.
- $\sqsubseteq$  Setup → Identity X → SIP → Extension Monitoring & Call Pick Up List: <0N>  $\sqsubseteq$  Setup → Identity X → SIP → Extension Monitoring & Call Pick Up URI: <SIP URI>  $\sqsubseteq$  Setup → Function Keys: S1...S4 <Calls>

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

ip810c	ip820c	ip830c	ip840c
Not supported	Not supported	Pre S4  —— Calls —— extC ◆ extD	Calls  Calls  time extA • extB
		I EYIO ▲ EYID	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

Ì	ip810c	ip820c	ip830c	ip840c
If the status of any of your monitored extensions is ringing you can select that call and press				

**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.

Functionality mapped to context-	ip820c Text	ip830c Icon	ip840c Text
sensitive function keys S1 to S4	ipozuc rext	iposoc icon	ipo40C Text
Idle screen (see page 19 / 88)			
Calls up Registration List (default S1)	Reg	Reg	Reg
Calls up Call History Lists (default S2)	CHist	CÉ	CHist
Calls up Phone Directory (default S3)	Dir	ŒĐ	Dir
Speed Dial Prompt (default S4)	Speed	<b>→•</b>	Speed
Calls up Presence State List (optional)	Presence		Presence
Calls up Contact List (optional)	-	223	Contacts
Calls up Extension Monitoring List (optional)	-		Calls
Retrieves new voice mail messages	VMail	M	VMail
Basic navigation			
Cancels or aborts actions	Cancel	X	Cancel
Confirms actions	Ok	<b>~</b>	Ok
Scrolls down in a list	-	1	Down
Scroll up in a list	-	1	Up
Moves the Cursor to the right	-	<b>+</b>	<<
Moves the Cursor to the left	Next	<b>→</b>	>>
Moves to Next Item	Next	<b>&gt;&gt;</b>	>>
"Edit" / "Enter number" screen			
Deletes the last character	Clear	С	Clear
Deletes left character	C ←	C <del>C-</del>	C <<
Input Mode numeriç lower case	.1a	аЬс	1>>a
Input Mode lower case upper case	.aA	ABC	a>>A
Input Mode upper case numeric	A1	123	A>>1
"Ringing", "Calling", "Connected", "Ho	olding", "Transfer	", "Conference"	screens
Denies an incoming call	Deny	Θ	Deny
Denies incoming calls automatically	DenyAll	Θ!	DenyAll
Places a call on hold / Resumes a call	R	<i>5</i> R	R
Establishes a three-party conference	Cnf.On	71.17	Cnf.On
Disconnects a three-party conference	Cnf.Off		Cnf.Off
Mutes the active microphone	Mute		Mute
Unmutes the active microphone	Unmute		Unmute
Turns on handsfree mode	-	44	SpOn
Turns off handsfree mode	-	No.	SpOff
Turns on casing speaker simultaneously	+Spkr		+Spkr
Turns off casing speaker	-Spkr		-Spkr

# **Mapping of Key Events**

Key Event	Description	Page
F_REC	Toggles recording on/off during an active call.	8 / 74
F_RETRIEVE	Retrieves the mailbox messages.	83
F_REDIAL	Shows the list of dialed records. Pressing it twice dials the last dialed record.	58
F_REDIRECT	Toggles unconditional redirection on/off. Can be followed by redirection target.	65
F_HELP	Shows helpful information about the phone.	25 / 46
F_CALL_LIST	Shows the local call lists.	78
F_DENY	Denies an incoming call.	63
F_DENYALL	Denies an incoming call and put the caller in the deny list.	63
F_SPEED_DIAL	Offers the speed dial prompt.	43
F_REGS	Shows the SIP registrations menu.	
F_MUTE	Puts the current call on mute i.e. disabling microphone.	69
F_ADR_BOOK / F_DIRECTORY	Shows phonebook/directory.	77
F_CONFERENCE	Toggle control for 3-way conference.	73
F_TRANSFER	Used to transfer a call. Can be followed by the transfer target.	72
F_R	Holds / unholds current call.	71
F_DND	Toggles Do Not Disturb (DND) feature.	64
F_CC / F_CALL_COMPLETION	Enables Call Completion feature while making a call. (CCNR/CCSB)	56
F_LOGOFF_ALL	Logs off all SIP lines on the phone. (Needs confirmation)	38
F_LOGON_USER	Launches the logon wizard to setup a SIP line on the phone.	75
F_PRESENCE	Shows presence state for the current SIP line to be altered.	80
F_BUDDIES	Shows the contact list for the current SIP line.	82
F_DIALOG	Shows current calls being monitored.	86

## Idle Screen

Phone Type	Idle Screen on Display			
ip810c	0	9	<b>9</b>	
ip820c	6		<b>D</b>	0
ip830c	9 0 9 0 9 0 9 0		<b>3</b> /0	<u></u>
ip840c	6 6	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	6	9

Pos	Element
0	Extension (SIP Identity)
<b>②</b>	Time
•	Date
9	Status Line for Messages
6	Status Indicators (Audio etc.)
6	Text or Symbols for Context- sensitive Keys (see page 8 and 87)
0	Extension Status Indicators

## **FCC Statement**

#### For ip8X0c 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)

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......

English

Version 1.0

