

VoIP terminals

operating manual



innovaphone

Next Generation Telephony

Release 5.01, 2nd edition, March 2004

PDF version available for download at:
<http://www.innovaphone.com>

Copyright © 2001-2004 innovaphone® AG

Böblinger Str. 76 71065 Sindelfingen, Germany

Tel +49 (70 31) 7 30 09-0 Fax +49 (70 31) 7 30 09-99

<http://www.innovaphone.com>

VoIP Terminals

Version 5.01

Operating manual

Brand names are used with no guarantee that they may be freely employed. Almost all hardware and software designations in this manual are registered trademarks or should be treated as such.

All rights reserved. No part of this manual may be reproduced in any way (print, photocopy, microfilm or by any other means) or processed, duplicated or distributed using electronic systems without explicit approval.

Texts and illustrations have been compiled and software created with the utmost care, however errors cannot be completely ruled out. This documentation is therefore supplied under exclusion of any liability or warranty of suitability for specific purposes. innovaphone reserves the right to improve or modify this documentation without prior notice.

Copyright © 2001-2004 innovaphone® AG

Contents

1	About this manual	10
1.1	Notes, tips and cautions.....	10
2	IP 200/202 comfort telephone	11
2.1	Top view of the IP 200/202	11
2.2	Bottom view of the IP 200/202	13
2.3	Putting the telephone into service.....	14
2.3.1	Connecting the telephone.....	14
2.4	Display.....	15
2.5	Operating instructions	17
2.5.1	Adjusting the volume	17
2.5.2	User guidance	17
2.6	Phoning	23
2.6.1	Answering a call	23
2.6.2	Terminating a call	23
2.6.3	Direct manual dialling	24
2.6.4	Prepared dialling.....	24
2.6.5	Dialling numbers from the directory	25
2.6.6	Different types of call numbers	26
2.6.7	Redialling	27
2.6.8	Open listening	29
2.6.9	Hands-free conversation.....	30
2.6.10	Muting	31
2.6.11	Making a refer-back call	32
2.6.12	Switching	33
2.6.13	Initiating a conference	34
2.6.14	Transferring a call.....	35
2.6.15	Call waiting	35
2.6.16	Return call in the event of an engaged line or	

	unanswered call	36
2.6.17	Automatic redialling.....	38
2.6.18	Call counter	38
2.6.19	Call list	39
2.6.20	The boss-secretary functions.....	42
2.6.21	Using a headset	45
2.7	Call lists menu	45
2.7.1	Calls (combined)	46
2.7.2	Call lists filter	47
2.7.3	Incoming calls.....	48
2.7.4	Outbound calls.....	48
2.7.5	Active return calls	49
2.8	Directory menu	50
2.8.1	Saving new entries.....	51
2.8.2	Searching for entries	52
2.8.3	Editing entries.....	52
2.8.4	Settings.....	54
2.9	Call diversion menu.....	57
2.9.1	Current diversion	57
2.9.2	Setting up a call diversion	58
2.9.3	Cancelling a call diversion	60
2.10	Phone access menu	61
2.10.1	Locking the phone.....	61
2.10.2	Changing the PIN.....	62
2.10.3	Multiple registration.....	63
2.11	Switches menu.....	66
2.11.1	Ringling.....	66
2.11.2	Call waiting.....	67
2.11.3	Calling line identification presentation.....	67
2.11.4	Headset.....	67

2.11.5	Direct dialling	67
2.12	Configuration menu	68
2.12.1	General settings configuration menu	68
2.12.2	Network configuration menu.....	72
2.12.3	Registration configuration menu	72
2.12.4	Function key configuration menu	72
2.12.5	Preferences configuration menu.....	78
2.12.6	Information configuration menu.....	84
2.13	Administration interface browser	87
3	IP 21 adapter	88
3.1	Top view of the IP 21	88
3.2	Front view of the IP 21	90
3.3	Putting the adapter into service	91
3.4	Operating instructions	91
3.4.1	The analogue terminal interfaces	91
3.4.2	Adjusting the volume of the analogue connection.....	93
4	IP 10 USB telephone	95
4.1	Top view of the IP 10	95
4.2	Putting the telephone into service.....	96
4.2.1	Connecting the telephone.....	96
4.3	Phoning	97
4.3.1	Answering a call	97
4.3.2	Terminating a call	97
4.3.3	Direct manual dialling	97
4.3.4	Redialling	98
4.3.5	Making a refer-back call	98
4.3.6	Switching	98
4.3.7	Transferring a call.....	99
4.3.8	Call waiting	99

4.4	User interface of the IP 10 software.....	100
5	innovaphone SoftwarePhone	101
5.1	System requirements	101
5.2	Installation.....	101
5.2.1	Deinstallation	103
5.3	Configuration with Setup Wizard.....	103
5.4	Configuration with Setup.....	107
5.4.1	Application index card	107
5.4.2	Audio index card	108
5.4.3	Ring index card.....	109
5.4.4	USB index card	109
5.4.5	H.323 index card.....	110
5.4.6	Telephone index card	111
5.4.7	Codec index card	112
5.4.8	Location index card	114
5.4.9	License index card.....	115
5.4.10	Trace index card	115
5.4.11	About index card.....	116
5.5	Structure of the user interface.....	116
5.5.1	The Phone area	118
5.5.2	Using the Phone area	118
5.5.3	The Call list.....	123
5.5.4	The phone book.....	123
5.5.5	Registrations.....	124
5.5.6	Call diversions.....	124
5.5.7	Hotkeys.....	124
5.5.8	SoftwarePhone as Windows Service.....	124
5.6	FAQ.....	125
6	PBX Operator console	127
6.1	Installation.....	128

6.2	User interface structure	129
6.2.1	Waiting (Wartend) - the queue	130
6.2.2	New (Neu) - the dialling aid	131
6.2.3	Active (Aktiv) - the active lines.....	132
6.2.4	The Busy Field (Besetztfeld)	133
6.3	The journal	134
6.4	Configuration	135
6.4.1	Basis parameters	135
6.5	Further options	135
6.5.1	Configuration of the PBX queue	137
6.6	Optimum utilisation of the PBX Operator	137
6.6.1	Transferring calls after prior consultation.....	137
6.6.2	Transferring calls without prior consultation.....	138
6.6.3	Setting up a call diversion for a subscriber	139
Appendix A:	Safety instructions	141
	Safety instructions for the IP 200/202	141
	Safety instructions for the IP 21	145
	Safety instructions for the IP 10 USB telephone	146
Appendix B:	Technical data	149
	IP 200/202.....	149
	IP 21.....	151
	IP 10.....	152
Appendix C:	Menu structure IP 200/202	153
Appendix D:	Definition of terms.....	156
Index		158

1 About this manual

The innovaphone VoIP terminals which are able to be connected to your innovaphone gateway are described in this manual. The “innovaphone Administrator Manual - VoIP Gateways” and the “Administrator Manual - innovaphone PBX” should also be observed for the configuration of the terminals. All instructions specified there should be followed carefully and the devices only used in accordance with these instructions. The manufacturer assumes no responsibility for any personal injury, damage to property or subsequent damage that can be attributed to improper use of the device.



Caution

Observe the safety instructions specified in the respective manuals at all times.

1.1 Notes, tips and cautions



Note

Notes provide you with information that you may first need to become familiar with in order to configure the terminals properly.



Tip

Tips provide you with information on how to operate the terminals in a particularly easy or convenient manner.



Caution

Make sure you observe these fields in order to prevent damage to the terminals or other equipment and to ensure your own safety.

2 IP 200/202 comfort telephone

2.1 Top view of the IP 200/202

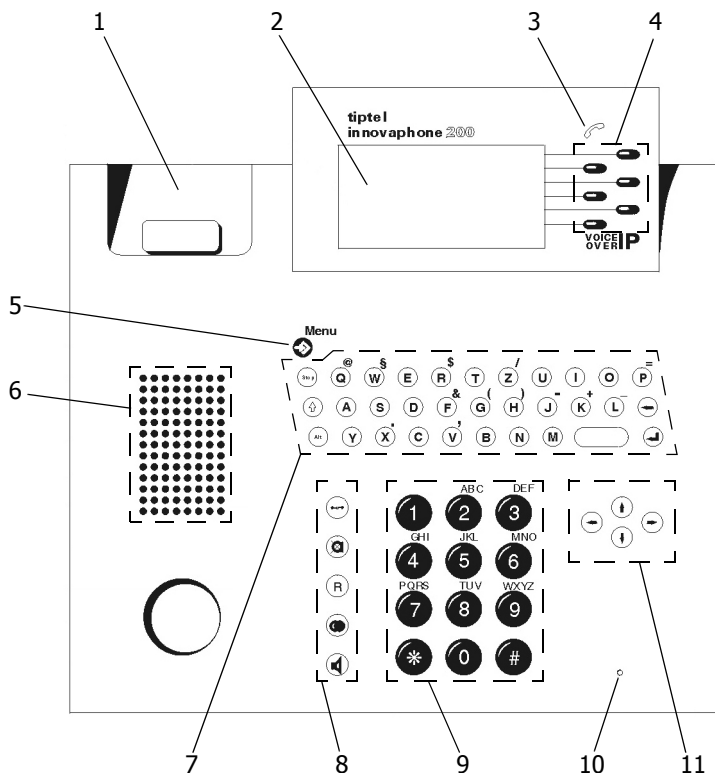














Fig. 1 Top of the IP 200/202 comfort telephone

Pos.	Symbol	Description and key function
1		Handset support
2		Display
3		LED

Pos.	Symbol	Description and key function
4		Menu and Function keys The six Function keys next to the display are used to select menus, to execute functions assigned to them or to directly dial a subscriber displayed there.
5	 Menu	The "Input/Menu" key is used to open the main menu or save changes.
6		Loudspeaker
7	     	<p>Character keypad</p> <p>The Stop key is used to cancel a function and return to the next higher menu.</p> <p>The Shift key is used in combination with a subsequent key to enter capital letters.</p> <p>The Backspace key is used to delete characters to the left of the cursor while making entries.</p> <p>The Alt key can be used in combination with a subsequent key to enter the special characters above the keys as well as additional special characters.</p> <p>Space key for entering spaces</p> <p>The Enter key is used to complete an entry or select the current line from a list.</p>
8	   	<p>Function block</p> <p>The Clearing key is used to terminate calls.</p> <p>The Mute key is used to switch off/on the microphone.</p> <p>The Refer-back key is used to enable the "Hold" and "Switch" functions. In idle mode, the Refer-back key is used to call up the list of missed calls.</p> <p>The Redial key is used to call up the list of 100 phone numbers last dialled.</p>




Pos.	Symbol	Description and key function
		The Loudspeaker key is used to switch on/off the hands-free system.
9		Dial keypad Digit keys for entering phone numbers The Star and Hash keys have special functions for touch-tone dialling.
10		Microphone
11		Arrow keys for navigating within menus

Table 1 Keys and function elements on the top of the IP 200/202

2.2 Bottom view of the IP 200/202

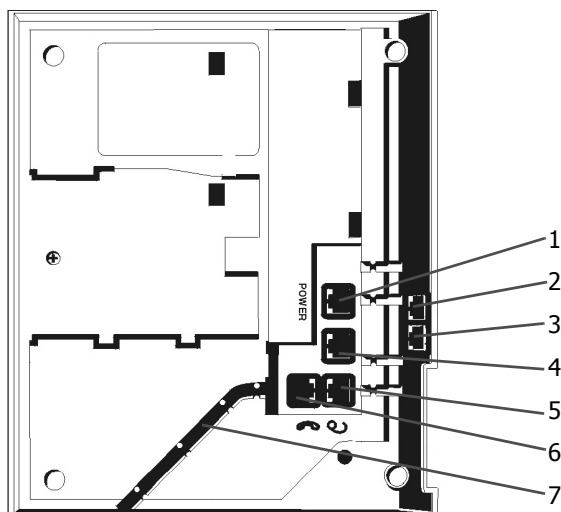


Fig. 2 Bottom of the IP 200/202 comfort telephone




Pos.	Labelling	Description
1	POWER	Socket for mains adapter
2	HUB or PC	PC socket (on the bottom of the housing of older devices)
3	Line	Network socket (on the bottom of the housing of older devices)
4	Line	ISDN socket (for IP 202 only)
5		Headset socket
6		Handset socket
7		Handset cable guide

Table 2 Function elements on the bottom of the IP 200/202

2.3 Putting the telephone into service

2.3.1 Connecting the telephone



Your IP telephone is designed as a terminal for the connection to an Ethernet IP network. Connect all necessary cables before putting your device into service. To do this, turn your device upside down:

- Insert the plug of the handset spiral cable with the long end in the "" socket and the one with the short end in the handset.
- Insert the small plug of the mains adapter in the "POWER" socket and the mains adapter in a 230 V socket.
- Plug a network connection cable into the "LINE" socket on the back of the IP 200/202 and the other end into a network socket.



Tip

Proceed as follows if you only have one network connector at your workplace which you have been using for your PC up to now: Connect the IP telephone to the network connector. Use the second network cable to connect your PC to the "HUB" or "PC" socket of the IP telephone. The telephone has an integrated switch.

- The symbol  flashes in the bottom line of the display after putting the telephone into service. This indicates that no connection has yet been able to be established to a gatekeeper in the network. The symbol  is displayed permanently as soon as a connection has been established to the gatekeeper. No symbol appears here if your IP telephones is configured for operation without the RAS protocol. The telephone displays the date and time in the bottom line if it has access to a time server.
- To connect an IP 202 to the ISDN network, insert an ISDN connection cable into the "LINE" socket on the bottom of the IP 202. Connect the other end to the ISDN socket of your ISDN service provider.

2.4 Display

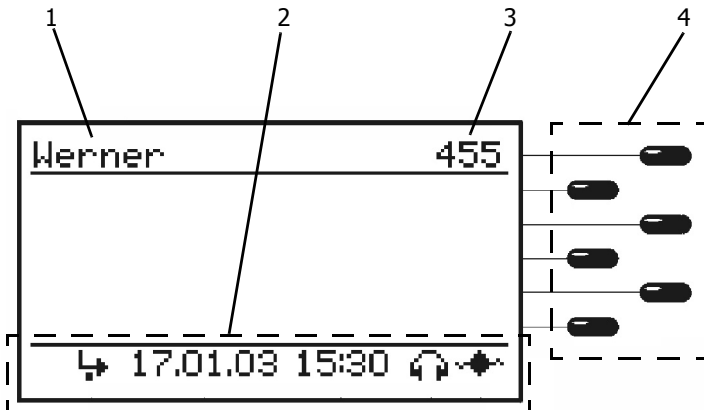


Fig. 3 Display of the IP 200/202 comfort telephone










Pos.	Symbol	Description
1		Name (H.323 ID or nickname of the innovaphone PBX configuration)
2		Status line; provides information on the current status of the telephone by means of the following symbols:
	17.01.03	Date
	15:30	Time
		No connection to the gatekeeper
		Connection established to the gatekeeper
		Loudspeaker on
		Hands-free system activated
		Microphone switched off (symbol flashes)
		Headset activated
		Call diversion activated
		Handset activated
	Telephone locked	
3		Own call number (E.164)
4		Function keys for the direct selection of functions

Table 3 IP 200/202 display contents

2.5 Operating instructions

2.5.1 Adjusting the volume

You can adjust the volume while establishing a connection as well as during the call. This setting only applies to the volume of the device currently active (handset, hands-free system or headset) and is retained after the call. The "vol." indicator shows the current value (see Fig. 4).

1.	The volume can be adjusted step-by-step by pressing the Arrow key ← or →.	← Volume one level lower → Volume one level quieter
----	---	--



Fig. 4 Adjusting the volume


2.5.2 User guidance

The menu system can be used to operate your IP 200/202 telephone. Starting at the main menu, you are guided to the function of your choice via submenus.







Fig. 5 Main menu

- Call lists** Menu for displaying lists of incoming, outgoing and combined calls. A filter can be set for displaying combined calls as well as in the menu used to display the active return calls (refer to Section 2.7, "Call lists menu" beginning on page 45).
- Directories** Menu for making entries to a directory or searching through a telephone book (refer to Section 2.8, "Directory menu" beginning on page 50).
- Call diversion** Menu for setting and displaying call diversions. This menu item only appears if the gatekeeper supports call diversions in accordance with the H.450 standard (refer to Section 2.9, "Call diversion menu" beginning on page 57).
- Phone access** Menu used to lock the terminal, change the PIN, change the user and log joint users on and off (refer to Section 2.10, "Phone access menu" beginning on page 61).
- Switches** For setting functions such as Call waiting, Line identification presentation, Headset and Direct dialling (refer to Section 2.11, "Switches menu" beginning on page 66).
- Configuration** Configuration submenus (refer to Section 2.12, "Configuration menu" beginning on page 68):
 - General settings** ... Menu used to check and edit the time/date/ language, location, directories, ring tone pattern, dial delay as well as reset the configuration to the default settings (refer to Section 2.12.1, "General settings configuration menu" beginning on page 68).
 - IP settings** Menu for network settings such as DHCP mode, IP addresses, time service and for the assignment of IP priority bits. This menu is dealt with in the "Administrator Manual - innovaphone PBX".

- Registration** Menu for settings required for logging on to the gatekeeper and for entering one's own number/ name (E164 address / H323 name). This menu is dealt with in the "Administrator Manual - innovaphone PBX".
- Function keys**..... Menu for assigning text and functions to the Function keys  (refer to Section 2.12.4, "Function key configuration menu" beginning on page 72).
- Preferences** Menu used to enter the telephone name and set the ring tone (refer to Section 2.12.5, "Preferences configuration menu" beginning on page 78).
- Information**..... Menu used to call up various statistical functions and current software versions by telephone (refer to Section 2.12.6, "Information configuration menu" beginning on page 84).

In general, the following applies:

- The initial condition is that the handset is hung up and the date and time are on the display.
- The  **Menu** key is used to switch from the initial condition to the main menu. It is used to switch from any submenu to the next higher menu level while at the same time confirming any changes made in the submenu.
- The modified values are saved upon returning to the main menu, but first you are asked whether the changes are to be saved.
- The Function keys  next to the display are used to switch to the corresponding submenu of the respective line (i.e. one menu level lower) or to activate the function assigned to the line.
- The Arrow keys  and  are used to switch between the menu selection lines or function lines and the edit fields of a menu, i.e. to determine the current line of the menu.
- The current line is displayed inversely if it contains a menu item or function. If it is an edit field, a flashing cursor indicates the input position.

- The Arrow key (→) is used to switch to the corresponding submenu of the current line (i.e. one menu level lower) or to activate the function assigned to the line.
- The menu is switched one level higher each time the Stop key (⏹) or Arrow key (←) is pressed. Any changes made in the submenu are discarded. To save changes, the submenu has to be exited by pressing the **Menu** key (⏪).
- The Clearing key (↵) is used to discard all entries and return to the initial condition.
- The Enter key (↵) is used to complete entries in an edit field.
- For orientation, the current menu level is in the bottom line of the display (<<. . .). The number of arrows "<" corresponds to the level in the menu.

Moving within lists

Your IP telephone provides you with a number of lists which you can select using the Arrow keys. The current entry is displayed inversely.

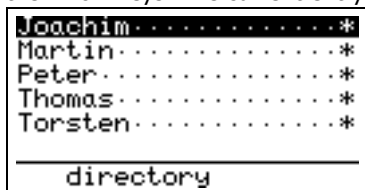


Fig. 6 Example of a telephone directory entry

You can use the Arrow keys (↑) and (↓) to move up and down within lists.

In submenus, the Arrow key (→) moves you to the current entry. The entry can be edited in these menus.

In context menus, the **Menu** key (⏪) moves you to the current entry. Additional information on the entry is displayed in these menus. Furthermore, it allows you to dial with calling line identification presentation either switched on or off.

The current entry is dialled immediately by lifting the handset or pressing the Enter key (↵), i.e. the destination specified by the entry is dialled (hands-free mode).

The Function keys (⏻) can also be used to dial entries. This precise function however, depends on the type of list.

Editing entries

Various forms contain edit fields in which you can make entries. The cursor is displayed in edit fields flashing vertical line.

```
gatekeeper ID
gk-name
gatekeeper IP address
1: 192.168. 0 .10
2: . . . . .
coder.....
* VoIP gatekeeper
```

Fig. 7 Editing entries

Newly entered characters are added to the left of the cursor. Characters to the right of the cursor are shifted to the right. The Backspace key \leftarrow (above the Enter key \rightarrow) deletes the character to the left of the cursor.

The key combination $\text{Alt} \leftarrow$ and \rightarrow deletes the character to the right of the cursor.

Entering special characters

You can enter any Western European characters in accordance with ISO 8859-1 using the keypad. Characters without their own key can be used by first pressing **Alt** or **Alt**, **Alt** and then the corresponding letter key (see Table 4).

Different characters can be selected by pressing the letter key consecutively in quick succession. The following special characters can be entered by pressing the corresponding key combination beginning with the respective character:

! " # \$ % & ' () * + , - . / : ; < = > ? @ [] \ ^ _ ` { | } ~ £ § ¨ ÷

Key	Alt + key	Alt + Alt + key	Key	Alt + key	Alt + Alt + key
Q	@ [] \ ...	' () * ...	F	& ' () ...	~ £ § ¨ ...
W	§ ¨ ÷ ...	£ § ¨ ...	G	() * + ...	{ } ~ ...
E	è é ê ë	È É Ê Ë	H) * + , ...	} ~ £ § ...
R	\$ % & ...	% & ' ...	J	- . / : ; ...	[] \ ^ ...
T	ð ÿ	ð ÿ	K	+ , - . / ...] \ ^ _ ...
Z	/ : ; < ...	? @ [] ...	L	_ ` { } ...	^ _ ` { ...
U	ü ù ú û	Ü Ù Ú Û	Y	Ý ý ÿ	Ý ý ÿ
I	ì í î ï	Ì Í Î Ï	X	. / : ; ...	; < = > ...
O	ö ø ò ó ô õ	Ö Ø Ò Ó Ô Õ	C	ç ¢	Ç
P	= > ? ...	} ~ £ ...	V	, - . / : ...	+ , - . / ...
A	ä å æ à á â ã	Ä Å Æ À Á Â Ã	B	þ	þ
S	ß	ß	N	ñ	Ñ
D	Ð	Ð	M	µ	µ

Table 4 Special characters

2.6 Phoning

2.6.1 Answering a call

You receive a call and your telephone rings. The name and the phone number of the caller are displayed. The name and phone number of the person for whom the call is intended are also displayed. This is particularly useful if you want to identify the actual caller when a call is diverted to your telephone.

```


call from subscriber
 001723137397

for the subscriber
  Torsten (72)


-----
20.02.03 14:29 0:01
  
```

Fig. 8 Answering a call

If you would like to answer the call:


1.	Pick up the handset or press the Loudspeaker key  .	You are connected to the caller and can make a call.
----	--	--

If you would like to reject the call:

1.	Press the Clearing key  .	The telephone returns to idle mode.
----	--	-------------------------------------

2.6.2 Terminating a call

If you would like to terminate an existing connection:

1.	Replace the handset. Press the Loudspeaker key  if you are in hands-free mode.	The connection is terminated.
----	---	-------------------------------

2.6.3 Direct manual dialling

With direct manual dialling, the IP telephone already dials the number while it is being entered. All digits which are entered are transmitted as DTMF signals during existing connections. You can remote control terminals this way.

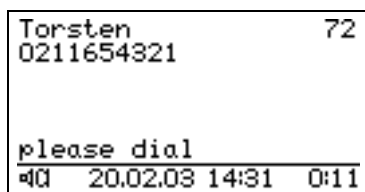








Fig. 9 Direct dialling


1.	Pick up the handset or switch on the hands-free system with the Loudspeaker key  .	The symbol  appears in handset mode, the symbols   in hands-free mode.
2.	Enter the call number using the keys.	The dial code appears and is dialled by the telephone (see Fig. 9).
3.	Replace the handset or switch off the hands-free system at the end of the call using the Loudspeaker key  .	The telephone returns to its initial condition.

2.6.4 Prepared dialling

With prepared dialling, numbers are first prepared and then dialled.

1.	Enter the call number using the keys.	The dial code appears on the display.
2.	Pick up the handset or switch on the hands-free system with the Loudspeaker key  .	The telephone dials the number.

Tip

The **Menu** key  can be used to go to a menu in which you can switch call number suppression on or off before dialling.



2.6.5 Dialling numbers from the directory







The telephone directory is opened automatically by entering the first letter of an entry. The entries matching the incomplete entry are displayed. The desired entry can be selected using the Arrow keys  or .



Fig. 10 Directory menu

This subscriber is dialled by picking up the handset, pressing the Loudspeaker key  or pressing the Enter key . The current entry can also be dialled by pressing the Function key  next to the entry. The previous entry is dialled by pressing the Function key  next to the sixth line.

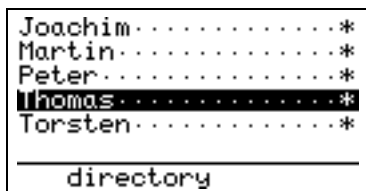


Fig. 11 Dialling numbers from the directory

1.	Enter the first letters of the entry.	The entries beginning with these letters appear on the display.
2.	Press the Arrow key (↑) or (↓).	Select the desired entry (see Fig. 11).
3.	To start dialling: Pick up the handset and press the Enter key (↵) or Loudspeaker key (🔊).	The telephone starts to dial the call number.



Tip

In context menus, the **Menu** key (☰) moves you to the current entry. You can start dialling from this menu (with phone number suppression if desired).

2.6.6 Different types of call numbers

In addition to dialling normal call numbers, your IP telephone can also dial H.323 names and IP addresses.

Call numbers consisting of characters other than the digits 0 to 9 and the characters * and # are considered to be H.323 names. Call numbers beginning with the character @ are always regarded to be H.323 names. The @ is removed before dialling however.

In some cases you can also directly dial an IP address. To do this, enter @ followed by the IP address, using the Star key (★) as decimal point. Extension numbers can be added, separated by a hash #.



Fig. 12 Dialling an IP address

2.6.7 Redialling








The 100 call numbers last dialled are saved automatically together with their time and date and can be dialled again. Press the Redial key  in the initial condition to call up the function. The list of call numbers dialled last are displayed. The handset symbol , on the display indicates that there has been a call.




Fig. 13 List of the call numbers dialled last

Dialling numbers from the redial list

1.	Press the Redial key  .	The redial list appears on the display (see Fig 13).
2.	Press the Arrow key  or  .	Select the desired entry.
3.	To start dialling: Pick up the handset, press the Enter key  or the Loudspeaker key  .	The device starts to dial the call number.








Tip

In context menus, the **Menu** key  moves you to the current entry. You can start dialling from this menu (with phone number suppression if desired). If, during a connection, a call was diverted to a different number, the destination of the diversion is displayed in addition to the number initially dialled. You can dial this number too (with phone number suppression if desired).








Dialling corrected numbers from the Redial list

It is possible for you to first correct the call number to be repeated.

1.	Press the Redial key  .	The Redial list appears on the display (see Fig 13).
2.	Press the Arrow key  or  .	Select the desired entry.
3.	Press the bottom Function key  next to the entry.	The cursor is within the field for the call number. You can now correct the call number.
4.	Pick up the handset, press the Enter key  or Loudspeaker key  or press the bottom Function key  next to the entry again.	The telephone starts to dial the call number.

Editing the Redial list

1.	Press the Redial key  .	The Redial list appears on the display (see Fig 13).
2.	Press the Arrow key  or  .	Select the desired entry.
3.	Press the top Function key  or Arrow key  .	A menu appears on the display. In addition, the duration of the calls made is displayed (see Fig 14).

```


save no. in directory
delete entry.....
delete list.....

duration : 0:00:03
-----
< edit redial
    
```


Fig. 14 Editing the Redial list

Adding a number to the telephone directory


You can copy call numbers from the Redial list into your telephone directory.

1.	Press the Function key  next to save no. in directory in the situation as illustrated by Fig. 14.	The input field for your telephone directory appears. The call number has already been entered. You can now add the name and complete the entry.
----	---	--

Deleting an entry

1.	Press the Function key  next to delete entry in the situation as illustrated by Fig. 14.	The current entry is deleted. The display returns to its previous condition (see Fig. 13).
----	--	--

Deleting a list






1.	Press the Function key  next to delete list in the situation as illustrated by Fig 14.	All older entries and the entry currently being edited are deleted. The display returns to its previous condition (see Fig. 13).
----	--	--

2.6.8 Open listening

You can switch on the loudspeaker while making a call with the handset, allowing the call to be heard in the room.



Fig. 15 Open listening

1.	Press the Loudspeaker key  during a call.	The loudspeaker symbol  appears (see Fig. 15) and the loudspeaker is switched on. Adjust the volume as desired using the Arrow key  or  .
2.	Press the Loudspeaker key  again.	The loudspeaker symbol disappears. The loudspeaker is switched off.





2.6.9 Hands-free conversation

The hands-free system allows calls to be made while the handset is hung up.







Fig. 16 Hands-free conversation

a) You receive a call:

1.	Press the Loudspeaker key  .	The hands-free system is switched on. The symbols "  
2.	Press the Loudspeaker key  again after the call.	The hands-free system is switched off.








b) If you want to call your conversation partner with the hands-free function on:

1.	Press the Loudspeaker key  .	The loudspeaker is switched on. The symbols "  
2.	Enter the call number.	The telephone dials the number.

3.	Press the Loudspeaker key  again after the call.	The hands-free system is switched off.
----	---	--

Switching from the handset to the hands-free system and vice versa

If you are making a call using the handset and would like to switch to the hands-free system:

1.	Press the Loudspeaker key  and hold it down.	The loudspeaker symbol "  " appears.
2.	Replace the handset.	
3.	Let go of the Loudspeaker key  .	The microphone symbol "  " appears next to the loudspeaker symbol "  ". The hands-free system is switched on. Adjust the volume as desired using the Arrow key  or  .

If you are making a call using the hands-free system and would like to switch to the handset:

1.	Pick up the handset.	The symbols "   " disappear. The hands-free system is switched off.
----	----------------------	---

2.6.10 Muting

You can mute the microphone during a phone call in order to make a confidential enquiry in the room without your conversation partner hearing you.



Fig. 17 Muting



1.	Press the Mute key (⊗) during a call.	The microphone symbol "☎" flashes (see Fig. 17). The handset or the hands-free microphone is switched off. Make a room enquiry.
2.	Press the Mute key (⊗) again.	If the call is made with the handset picked up, the flashing microphone symbol "☎" disappears and the handset microphone is switched on again. If the call is made in hands-free mode, the microphone symbol "☎" is displayed permanently and the hands-free microphone is switched on again. You can resume your call.

2.6.11 Making a refer-back call





The line can be put on hold during a call. With the call on hold, you can make a refer-back call to another subscriber. Your conversation partner who has been put on hold cannot listen to this refer-back call. The Hold function is also required to use the Switch and Transfer functions.



Fig. 18 Holding a call

1.	Press the Refer-back key  during a call.	Your conversation partner is put on hold. You hear a dial tone. The line on hold is displayed brightly, the active line inversely (see Fig 18).
2.	Dial the call number.	A further connection is established.
3.	Press the Clearing key  to terminate the refer-back call.	You return to the conversation partner previously put on hold.

Tip

The call with the conversation partner highlighted on the display (active) is terminated by pressing the Clearing key . If you alternatively want to terminate a call with another conversation partner, first select the respective conversation partner whose connection you want to disconnect using the Arrow key  or  and only then press the Clearing key .





2.6.12 Switching

You can switch between two lines using the Switch function.

Torsten	72
Peter	36
Torsten	72
Thomas	70
<hr/>	
 20.02.03 15:24 0:19	

Fig. 19 Switching

1.	Press the Refer-back key  during a call with an active line and a line on hold.	The active line is put on hold and the line on hold activated (see Fig. 19).
----	--	--

2.	To terminate the active line, you must press the Clearing key  .	You terminate the connection to the active conversation partner. Observe also the tip in Section 2.6.11.
----	---	--

2.6.13 Initiating a conference

You can set up a conference between two lines using this function. To do this, you need an active line and a line on hold (refer to Section 2.6.11, "Making a refer-back call" beginning on page 32).

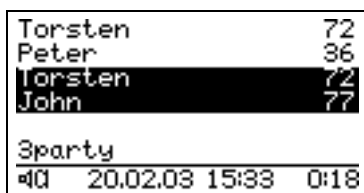





Fig. 20 Conference



1.	Press the Menu key  during a call involving an active line and a line on hold.	A conference is set up between the active line and the line on hold. All the subscribers can now talk with each other (see Fig. 20).
2.	You can end the conference by pressing the Menu key  again.	The call on hold prior to the conference is now on hold again.
3.	To terminate the active line, you must press the Clearing key  .	You terminate the connection to the active conversation partner. Observe also the tip in Section 2.6.11.

2.6.14 Transferring a call

You are making a call and would like to transfer it to another line.



Fig. 21 Transferring a call

1.	Press the Refer-back key  during a call.	Your conversation partner is put on hold. You hear a dial tone. The line on hold is displayed brightly and the active line inversely.
2.	Dial the desired call number.	The connection is established. If the subscriber answers, you can make a call with him/her in the same way as with a refer-back call.
3.	Replace the handset or, if you are in hands-free mode, press the Loudspeaker key  .	The caller is connected to the dialled line.



Tip

When transferring a call, you do not have to wait until the desired subscriber answers. The handset can be replaced immediately once the phone number has been dialled.



2.6.15 Call waiting

Someone tries to call you during a call. You are notified by a knocking tone. In addition the red LED flashes on the right above the display and the new connection flashes on the display.

Press the Refer-back key  if you would like to answer the caller without terminating the current call. Press the Clearing key  if you would like to terminate the current call before answering the call.

Call waiting can be deactivated in the **Switches** menu, which can be accessed via the main menu (refer to Section 2.11.2, "Call waiting" beginning on page 67).

2.6.16 Return call in the event of an engaged line or unanswered call

An automatic return call can be initiated if the line of the called party is engaged. The IP 200/202 indicates that the line is free as soon as the called party has terminated the call. As soon as you pick up the handset of the IP 200/202, the call is initiated and the opposite telephone rings. The telephone network of the call partner must support this feature.

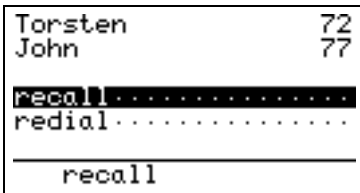






Fig. 22 Recall menu

You can find further information in Section 2.7.5, "Active return calls" beginning on page 49.

1.	Press the Menu key  if the busy tone or the distant dial tone can be heard.	The Recall menu is displayed (see Fig. 22).
2.	Press the Function key  next to recall and replace the handset.	Automatic recall is activated.
3.	If the return call is indicated by the IP 200/202 a) Pick up the handset or press the Loudspeaker key  to initiate the return call or	a) The call with the opposite party is set up.

	b) Press the Clearing key  to reject the return call.	b) The connection is not established and the return call is deleted from the list of active return calls.
--	--	---

Tip

The Recall function is restricted to an hour. The call is then automatically deleted from the list of active return calls.



Automatic recall is only possible within the innovaphone PBX network. Use the automatic redial function instead of the Recall function outside the innovaphone PBX network (refer to the next section).



2.6.17 Automatic redialling

Automatic redialling can be initiated if no-one answers the call at the opposite terminal or the busy tone is heard.

If a call is made again at the called terminal, the recall option is displayed on your IP 200/202 and the telephone rings.

1.	Press the Menu key  if the busy tone or the distant dial tone can be heard.	The Recall menu is displayed (see Fig. 22).
2.	Press the Function key  next to redial but do <u>not</u> replace the handset.	Automatic redialling is activated.
3.	The IP 200/202 tries to connect to the opposite terminal at intervals of 30 seconds.	The signal tone of the outgoing call can be heard as soon as the opposite terminal has been reached by automatic redialling.



Tip

Redialling is restricted to 20 minutes. Just simply hang up if you wish to terminate the redialling procedure any earlier. The call is deleted from the list of active return calls.

2.6.18 Call counter

The IP 200/202 has a call counter which indicates the amount of incoming calls during a period of absence.

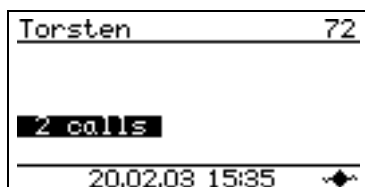


Fig. 23 Call counter

The call counter is deleted automatically if the call list is called up. You can call up the call list by pressing the Refer-back key **R**.

2.6.19 Call list

In the initial condition, press the Refer-back key **R** to call up the call list. The call list is a list of all incoming calls.

“no entry” is displayed if there are no entries. The following is displayed if entries are available:

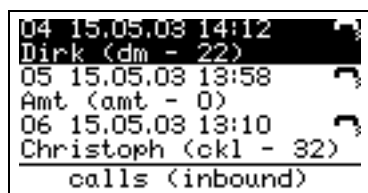







Fig. 24 Incoming call list menu

The call list contains the following information:


- Consecutive numbering of the entries, beginning with 01 for the latest call.
- Date and time of the call.
- Success (connected/not connected).
Successful connections are indicated by the **[hook]** symbol, unlike unsuccessful connections.
- Name of the caller (if entered in the telephone directory) and call number of the caller (if transmitted).

Dialling numbers from the call list

1.	Press the Refer-back key  with the telephone in its initial condition.	The call list appears on the display.
2.	Press the Arrow key  or  .	Select the desired entry.
3.	Start dialling: Press the Enter key  or Loudspeaker key  or pick up the handset.	The telephone starts to dial the call number.










Tip



In context menus, the **Menu** key  moves you to the current entry. You can start dialling from this menu (with phone number suppression if desired). If the call has been diverted from another line, the number of the transferring party is displayed in addition to the number of the initial caller. You can dial this number too (with phone number suppression if desired).

Dialling corrected numbers from the call list

You can correct call numbers first before dialling them.

1.	Press the Refer-back key  with the telephone in its initial condition.	The call list appears on the display.
2.	Press the Arrow key  or  .	Select the desired entry.
3.	Press the bottom Function key  next to the entry.	The cursor is within the field for the call number. You can now correct the call number.
4.	Press the bottom Function key  next to the entry or press the Enter key  or Loudspeaker key  or pick up the handset.	The telephone starts to dial the call number.

Editing the call list

1.	Press the top Function key  or the Arrow key  .	A menu appears on the display. In addition, the duration of the calls already made is displayed (see Fig 25).
----	---	---

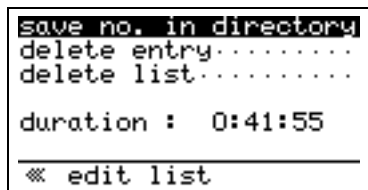




Fig. 25 Editing the call list

Adding a call number to the telephone directory


You can copy numbers from the call list into your telephone directory.

1.	Press the bottom Function key  next to save no. in directory .	The input field for your telephone directory appears. The number has already been entered. You can now add the name and complete the entry.
----	--	---

Deleting an entry from the call list

1.	Press the Function key  next to delete entry .	The current entry is deleted. The display returns to its previous condition.
----	--	--

Deleting the call list

1.	Press the Function key  next to delete list .	All older entries and the entry currently being edited are deleted.
----	---	---

2.6.20 The boss-secretary functions

Your IP 200/202 provides you with several functions to help you with your office work. One of the functions summarised under the term boss-secretary functions, for example, allows you to use the **Announcement function** to make announcements to a telephone without the other subscriber having to pick up the handset. The **Partner function** allows you to display the status of a partner's telephone on your own telephone. The **Pickup list** allows you to pick up calls for other subscribers conveniently on your own telephone.

Announcement function

The Announcement function allows you to speak directly to another subscriber without the subscriber having to pick up the handset. A short tone is heard at the opposite terminal and your voice can then be heard over the loudspeaker of the telephone. The telephone of the opposite party automatically switches to hands-free mode without activating the microphone (see Fig. 26).



Note

The prerequisite for this is that the opposite party is also using an IP 200/202 telephone.

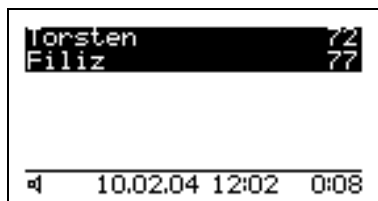


Fig. 26 Incoming announcement

The Announcement function can only be used after it has been assigned to one of the six Function keys (Announcement key). Please observe Section 2.12.4, "Function key configuration menu" beginning on page 72 for the configuration of the Function keys.


Partner function

The Partner function allows you to display the status of a partner's telephone on your own telephone.

The Partner function can only be used after it has been assigned to one of the six

Function keys (Partner key). Please observe Section 2.12.4, "Function key configuration menu" beginning on page 72 for the configuration of the Function keys.

To set up the signalling of this function, refer to the Section , "Partners" beginning on page 82.

If you have assigned the Partner function to a Function key of your telephone for a group member and the telephone of the configured partner is called, this call is signalled on your telephone. The symbol  and the call number of the caller appear next to the name of the partner (see Fig. 27).

The call can be picked up by pressing the adjacent Function key.

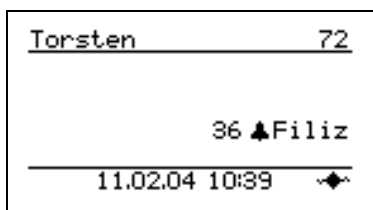



Fig. 27 Incoming call at partner

If the line of the set-up partner is engaged, the symbol  appears next to the name of the partner (see Fig. 28).

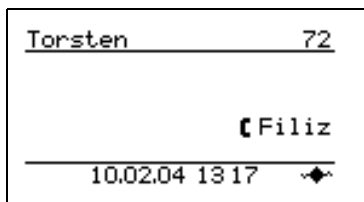


Fig. 28 Partner engaged

Tip

The key can be used like an abbreviated dialling key if the line of the set-up partner is free. The partner is called by pressing the key.



Pickup List function

The Pickup List function is used to display all telephones of the group which are currently ringing and the number of the first caller.

The Pickup list can only be used after it has been assigned to one of the six Function keys (Pickup List key). Please observe Section 2.12.4, "Function key configuration menu" beginning on page 72 for the configuration of the Function keys.

To set up the signalling of this function, refer to the Section , "Pickup list" beginning on page 84.

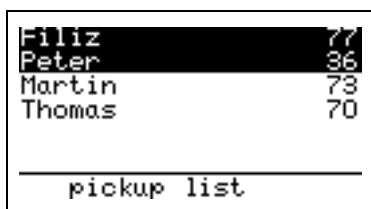










Fig. 29 Active calls in the Pickup list





If there is only **one call** currently active, it can be picked up by pressing the Pickup List key.

1.	Press the Function key  next to the Pickup list entry.	The call is picked up.
----	---	------------------------



If there are **several active calls**, all of these calls can be displayed in a menu by pressing the Pickup Lists key (see Fig. 29). Calls can be selected from the list in order to answer them using the adjacent Function key  or the Navigation keys  or .

1.	Press the Function key  next to the Pickup list entry.	The Pickup List menu appears (see Fig. 29).
2.	Select the entry of your choice from the list using the Arrow key  or  .	Select the desired entry from the list.
3.	Press the Function key  next to the entry.	The selected call is picked up.



2.6.21 Using a headset

You can use the **Space** key to switch a connected headset on or off. You need permission to do this however (**Menu** , **switches** , **headset** ). The symbol  appears in the status line.

1.	Press the Space key.	The dialling preparations are activated.
2.	Press the Space key again.	The call is terminated.

It is possible to transfer a call to the handset by picking up the handset. The headset can then still be used to follow the call. The **Space** key can be used to transfer the call from the handset to the headset. A call over the headset can also be followed on the telephone by pressing the Loudspeaker key . The call is transferred from the headset to the hands-free system if the **Space** key is pressed after pressing the Loudspeaker key . In the same way it is possible to transfer the call from the handset or hands-free system back to the headset. You merely need to press the **Space** key.

2.7 Call lists menu

All outgoing and incoming calls are saved in a call list. In the initial condition, press the keys: **Menu** , **Call lists** . The following is displayed:

```

calls (combined).....
  filter.....
calls (inbound).....
calls (outbound).....




active recalls.....
< call lists
  
```

Fig. 30 Call lists menu

It is possible to dial the call number again directly via the menus **calls (combined)**, **calls (incoming)** and **calls (outgoing)**. Refer to Section 2.6.7, "Redialling" beginning on page 27 and Section 2.6.19, "Call list" beginning on page 39 for the procedure.

2.7.1 Calls (combined)

This function displays a call list with call types which can be combined. It includes all call types indicated with (+) in the **Call lists > Filter** menu.

In the initial condition, press the keys: **Menu** , **Call lists** , **Calls (combined)** . "No entry" is displayed if there are no entries. The following is displayed if entries are available:

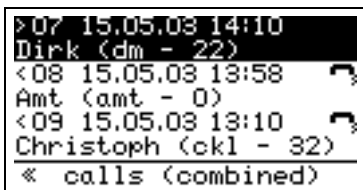



Fig. 31 Combined call list menu

The combined call list contains the following information:

- Type of call (incoming/outgoing).
Incoming calls are indicated with ">" and outgoing calls with "<".
- Consecutive numbering of the entries, beginning with 01 for the last entry
- Date and time of the call.
- Success (connected/not connected).
Successful connections are indicated by the symbol , unlike unsuccessful connections.
- Name of the caller/conversation partner (if entered in the directory) and call number of the caller/conversation partner (if transmitted). For incoming calls from a diverted call number, the initial number of the caller and not that of the diverted device is transmitted.

2.7.2 Call lists filter

In the **call lists > filter** menu those entries are selected from the preceding **call lists > calls (combined)** menu which are to be filtered in order to be displayed.

In the initial condition, press the keys, **menu** , **call lists** , **filter** . The following is displayed:

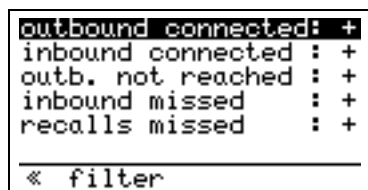



Fig. 32 Call lists filter menu

The **calls (combined)** menu display can be switched on (+) or off (-) for the following call types by pressing the respective Function key  next to the displayed call type:

Call type	Switches on (+) or off (-) for
outbound connected	Dialled call numbers which have been connected successfully
inbound connected	Incoming calls which have been connected successfully
outb. not reached	Dialled call numbers to which no connection has been able to be successfully established (outbound not reached)
inbound missed	Incoming calls which have not reached their destination
recalls missed	Initiated return calls which have not reached their destination

Table 5 Filter options for the **calls (combined)** menu display

2.7.3 Incoming calls

This function displays all incoming calls in the same way as by pressing the Refer-back key **(R)**.

In the initial condition, press the keys, **Menu** **(M)**, **call lists** **(CL)**, **calls (inbound)** **(CI)**. "no entry" is displayed if there are no entries. The following is displayed if entries are available:

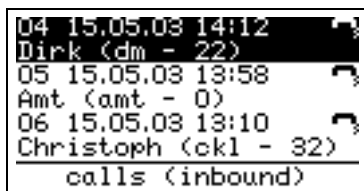


Fig. 33 Incoming call list menu

You can find further information in Section 2.6.19, "Call list" beginning on page 39.

The **calls (inbound)** list contains, among others, the following information:

- Consecutive numbering of the entries, beginning with 01 for the last incoming call
- Date and time of the call.
- Success (connected / not connected).
Successful connections are indicated by the symbol **[hook]**, unlike unsuccessful connections.
- Name of the caller (if entered in the telephone directory) and call number of the caller (if transmitted).

2.7.4 Outbound calls

This function is used to display all dialled calls numbers in the same way as by pressing the Redial key **(R)**.

In the initial condition, press the keys, **Menu** **(M)**, **call lists** **(CL)**, **calls (outbound)** **(CO)**. "No entry" is displayed if there are no entries. The following is displayed if entries are available:


```


37 12.05.03 11:52
Sven (sba - 35)
38 09.05.03 17:39
Gerd (gh - 33)
39 09.05.03 17:32
Konstantin (kkk - 39)
« calls (outbound)

```

Fig. 34 Outgoing call list menu




You can find further information in Section 2.6.7, “Redialling” beginning on page 27.

The **calls (outbound)** list contains among others the following information:

- Consecutive numbering of the entries, beginning with 01 for the call number dialled last.
- Date and time of the call.
- Success (connected/not connected).
Successful connections are indicated by the symbol , unlike unsuccessful connections.
- Name of the conversation partner (if entered in the directory) and dialled call number.

2.7.5 Active return calls

This function is used to display a list of all return calls still active.

In the initial condition, press the keys, **Menu** , **call lists** , **active recalls** . “no entry” is displayed if there are no entries. The following is displayed if entries are available:

```

01 23.01.03 11:34
Peter (ple - 36)
« active recalls

```



Fig. 35 Active recall list menu

You can find further information in Section 2.6.16, “Return call in the event of an engaged line or unanswered call” beginning on page 36.

The **active recalls** list contains among others the following information:

- Consecutive numbering of the entries, beginning with 01 for the return call activated last.
- Date and time of the call.
- Name of the conversation partner (if entered in the directory) and dialled call number.

2.8 Directory menu

The telephone directory is your personal phone book in which the names and call numbers of your conversation partners are administered. In the initial condition, press the keys, **Menu** , **directory** . The following is displayed:

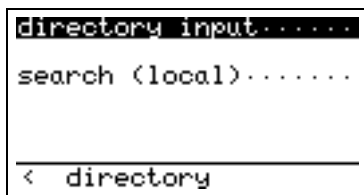


Fig. 36 Directory menu

Depending on the configuration, it may be possible to access the directory of the telephone system (exchange) or of an external LDAP server.

Entries in the local telephone directory consist of the name (= search term), the call number and, if desired, further settings and notes.

The number of possible entries depends among others on the amount of notes additionally entered. Notes can be e.g. addresses or dates of birth. Approximately 2000 entries can be administered without notes. All entries are sorted alphabetically. The entire telephone directory can be saved on a PC and reloaded for further processing and in order to additionally back up the data. You can also import external address books from the PC. To do this, please refer to your administrator (see "Administrator Manual - innovaphone PBX").

2.8.1 Saving new entries

In the initial condition, press the Enter key . The following is displayed:

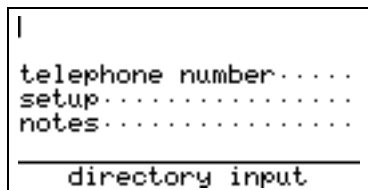






Fig. 37 Directory input menu

1.	Press the Enter key  in the initial condition.	The input fields are displayed. The cursor is within the field for the name (see Fig. 37 on page 51).
2.	Enter the name.	Enter a maximum of 40 characters.
3.	Press the Function key  next to telephone number .	The number and name fields are displayed.
4.	Enter the call number ¹ .	
5.	Press the Function key  next to name .	The cursor moves to the H.323 name field.
6.	Enter the H.323 name ¹ .	
7.	Press the Menu key  three times.	The <i>entry saved message</i> appears and the directory input field is re-opened.

^{1.} **Either** the call number **or** the name has to be entered. The call number is determined automatically by entering the name.

2.8.2 Searching for entries

There are different ways of looking for telephone directory entries. From the initial condition, you can move to:

- The display of all directory entries beginning with the letter entered first by means of the character keypad
- The start of the alphabetical telephone directory by pressing the Arrow key \uparrow
- The end of the alphabetical telephone directory by pressing the Arrow key \downarrow

1.	Enter the first letter or press the Arrow key \uparrow or \downarrow . If necessary, scroll through the telephone directory using the arrow keys \uparrow or \downarrow until the desired entry is highlighted.	
2.	Press the Arrow key \rightarrow .	The entry appears together with the name field and selection fields.

Once the entry has been found, the selected call number can be dialed by picking up the handset or pressing the Loudspeaker key ☎ .

The selected entry can also be edited however. Refer to Section 2.8.3, "Editing entries" beginning on page 52.

2.8.3 Editing entries

Entries can be checked, corrected, supplemented or deleted at any time. In these cases you need to find the relevant entry. Refer to Section 2.8.2, "Searching for entries" beginning on page 52.

The following is displayed once the desired entry has been selected (for example the entry "Madonna" in Fig. 38):

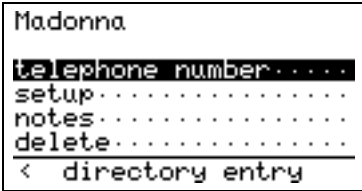





Fig. 38 Directory input menu

Editing the call number and name

1.	Press the Function key  next to telephone number in the situation as illustrated by Fig 38.	The number and name fields are displayed with their entries.
2.	Correct the call number as required.	
3.	Press the Function key  next to name .	The cursor moves to the H.323 name field.
4.	Correct the H.323 name as required.	
5.	Press the Menu key  three times.	The <i>entry saved</i> message appears and the alphabetical telephone directory list is re-opened.




2.8.4 Settings

You can change the ring tone settings for each entry in the telephone directory.

Ringing



You can select either "yes", "no" or "VIP" here.

- "Yes" means that calls from the entered number are signalled acoustically, provided no other restrictions have been imposed on the acoustic signalling.
- "No" means that calls from the entered number are only signalled optically and not acoustically.
- "VIP" means that there are no restrictions on calls from the entered number in terms of acoustic signalling.

1.	Press the Function key  next to setup in the situation as illustrated by Fig 38.	The ringing menu item is displayed together with the current setting "yes", "no" or "VIP".
2.	Select the desired ringing parameter by pressing the Function key  next to ringing .	yes= acoustic signalling of calls with this number no= no acoustic signalling of calls with this number VIP= the restrictions on the acoustic signalling of calls with this number do not apply
3.	Press the Menu key  twice.	The entry saved message appears and the alphabetical telephone directory list is re-opened.

Setting the ring tone for a telephone directory entry

You can set a special ringing tone for the selected telephone directory entry here.

1.	Press the Function key  next to setup and then the Function key  next to change melody in the situation as illustrated in Fig 38.	The ring melody menu is displayed (see Fig. 39).
----	---	---

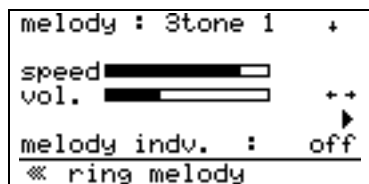










Fig. 39 Ring melody menu







Selecting a melody:

1.	Press the Arrow key  or  in the situation as illustrated by Fig 39.	You can use the keys to scroll through the melody list until the desired entry is marked.
----	---	---


Listening to a melody:

1.	Press the Function key  next to the symbol  in the situation as illustrated by Fig. 39. The symbol changes from  to  .	The playback function is activated. The ring tone is played with the current melody, speed and volume settings.
2.	The ring tone is interrupted by pressing the same Function key  (symbol  .	The ringing stops.

Selecting the volume and speed:



1.	Press the Function key  next to speed in the situation as illustrated by Fig 39.	
2.	Press the Arrow key  or  .	The melody is played more slowly or quickly.
3.	Press the Function key  next to vol.	
4.	Press the Arrow key  or  .	The melody is played quieter or louder.

Switching the customised ring tone on or off

1.	Press the Function key  next to melody indiv. in the situation as illustrated by Fig 39.	The display switches between "on" and "off". on= The telephone rings in accordance with the setting in the change melody menu if the calling number corresponds to the telephone directory entry. off= The general ring tone is heard whenever the telephone rings.
----	--	--




Entering notes

You can add notes to each telephone directory entry.

1.	Press the Function key  next to notes in the situation as illustrated by Fig 38.	The cursor moves to the empty side. You can enter additional information here (e.g. address or date of birth). You can enter a maximum of 120 characters.
2.	Press the Menu key  twice.	The <i>entry saved</i> message appears and the alphabetical telephone directory list is re-opened.

Deleting entries

Proceed as follows if you wish to delete the selected entry:

1.	Press the Function key  next to delete in the situation as illustrated by Fig 38.	You are asked whether the entry is to be deleted.
2.	Press the Function key  next to yes or Press the Function key  next to no .	The entry is deleted. The entry is not deleted and the previous menu is returned to.

2.9 Call diversion menu

Note


Calls are diverted in accordance with the H.450 standard. The gatekeeper must support this protocol.

Call diversion is not included in the menu of the IP telephone if the gatekeeper does not support this protocol (see Fig. 5 on page 17).



2.9.1 Current diversion

Tip

In the initial condition of the IP telephone, an active call diversion is indicated by the symbol  in the status line. With permanent diversions, the destination of the diversion is also displayed.



The IP telephone supports three different types of call diversions:

- Permanent diversion: In this case calls are diverted to another subscriber.
- Diversion if busy: In this case, calls are diverted if there is already an active call.
- Diversion if there is no response: In this case, calls are diverted which have not been answered within a certain period of time.

2.9.2 Setting up a call diversion

Up to four frequently used diversion profiles can be saved in the telephone and then activated by a few keystrokes (even more quickly if you assign a call diversion to a Function key **☐**).

In the initial condition, press the keys, **☞ Menu, call diversion ☐** and select one of the diversion profiles 1 to 4 by pressing the corresponding Function key **☐**.

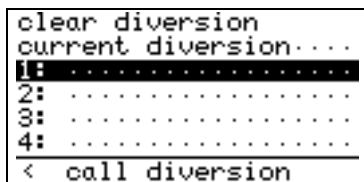


Fig. 40 Call diversion menu

Enter a name (e.g. "Mobile") and the desired forwarding destinations and save the entry.

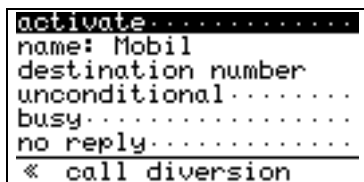


Fig. 41 Editing a call diversion

In the initial condition, you can now activate the diversions saved in diversion profile 1 by pressing the keys **☞ Menu, call diversion ☐, 1: Mobile ☐, activate ☐** (see Fig. 42).

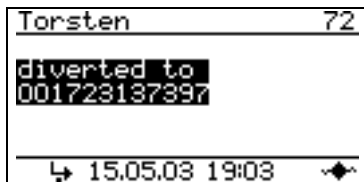


Fig. 42 Call diversion activated

You can also set up a single diversion using the **current diversion** menu. This menu which is used to display the current active diversions can also be used to set up call diversions. The forwarding destinations entered here are not saved in the telephone though.

In the initial condition, press the keys, **Menu, call diversion**, **current diversion**.

```

unconditional : on
                001728137397
busy           : off
telephone number.....
no reply      : off
telephone number.....
« call diversion
    
```

Fig. 43 Editing the current call diversion

Entering the destination number


1.	Press the Function key next to telephone number under the desired type of diversion (unconditional, busy, no reply).	The directory, number and name fields are displayed.
2.	Press the Function key next to number .	The cursor is within the field for the E.164 number.
3.	Enter the number.	
4.	Press the Function key next to name .	The cursor moves to the H.323 name field.
5.	Press the Menu key twice.	The call diversion menu is displayed again.

Tip

You can select a telephone directory entry as an alternative to entering the call number. To do this, press the Function key next to **directory**.



Activating and deactivating a call diversion

1.	Press the Function key  next to the desired type of diversion.	The display switches between "off" and "on".
----	---	--

2.9.3 Cancelling a call diversion

In the initial condition, press the keys,  **Menu**, **call diversion** , **clear diversion** .

```
clear diversion
current diversion....
1: Mobil.....
2: .....
3: .....
4: .....
< call diversion
```

Fig. 44 Cancelling a call diversion

All the diversions are cancelled in this way. Individual diversions can be cancelled via the **current diversion** menu.

2.10 Phone access menu







The Phone access menu can be used to disable the telephone, change the PIN, change the user and log joint users on and off. In the initial condition, press the keys, **Menu** , **phone access** . The following is displayed:



Fig. 45 Phone access menu

2.10.1 Locking the phone

The IP 200/202 comfort telephone can be locked as follows:

1.	Press the Function key  next to lock phone .	The display switches to the menu illustrated by Fig. 47 and goes to the PIN input field.
2.	Enter the PIN and press either the Menu key  or the Enter key  .	The telephone locked message appears and the telephone returns to its initial condition. The active lock is indicated on the display by the symbol  .

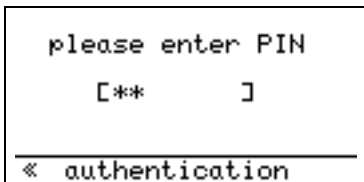










Fig. 46 Locking the telephone

The telephone can be unlocked by pressing the **Menu** key  and then entering the PIN and pressing the Enter key .

2.10.2 Changing the PIN

You can use this function to change your current PIN (personal security code).

Proceed as follows to change the PIN:

1.	Press the Function key  next to change PIN and enter the PIN.	The display switches to the menu illustrated by Fig. 47 and goes to the input field for the current PIN.
2.	Press the Function key  next to the upper new PIN field.	The cursor is within the upper field for the new PIN.
3.	Enter the new PIN.	
4.	Press the Function key  next to the lower new PIN field.	The cursor is within the lower field for the new PIN.
5.	Enter the new PIN again.	The new PIN has to be entered again here for security reasons.
6.	<p>Press the Menu key  twice.</p> <p>Press the Function key  next to yes.</p> <p>Press the Function key  next to no.</p>	<p>The message and query setting changed. save changes? appears.</p> <p>The <i>change activated</i> message appears and the display illustrated by Fig. 45 is returned to.</p> <p>The <i>change ignored</i> message appears and the display illustrated by Fig. 45 is returned to.</p>

```

cur PIN      : ***
new PIN     : ****
new PIN     : ****
-----
< change PIN
    
```

Fig. 47 Changing the PIN

Tip

There is no default PIN setting.



2.10.3 Multiple registration

Multiple registration makes it possible to log on to a IP 200/202 with additional users. This feature enables a variety of options. It is possible, for example, for a co-worker working at several locations to log on to the telephone at different workplaces. Or it is possible to implement the function of a telephone exchange or hotline by co-workers being able to log on as joint users of this circuit. It is also possible to stand in temporarily for a colleague (his/her call number) by means of multiple registration.



Tip





This feature can only be used if it is possible to register the call number at several telephones in the PBX component. For further information refer to the "Administrator Manual - innovaphone PBX".




Logging on joint users


Joint users can be logged on to your IP 200/202 as follows:


1.	Press the Function key  next to register co-user in the situation as illustrated by Fig 45.	The display switches to the menu illustrated by Fig. 48.
2.	Press the Function key  next to register .	The display switches to the menu illustrated by Fig. 49.

3.	Press the Function key  next to name:.	Enter the name of the joint user.
4.	Press the Function key  next to number:.	Enter the call number of the joint user.
5.	Press the Function key  next to passw.:.	Enter the password of the joint user.
6.	Press the Menu key  twice. The <code>log on...</code> message appears and then, if logged on successfully, the <i>name (no.)</i> logged on message appears after a short time.	<i>Name</i> stands for the entered name and <i>No.</i> for the entered call number of the joint user. The display illustrated in Fig. 45 is returned to.

Proceed in the same manner to log on further joint users.

Alternatively, a joint user name can also be selected from the telephone directory by pressing the Function key  next to **directory.....** in the situation as illustrated by Fig. 45.

If the joint user to be logged on is connected to another gatekeeper, the gatekeeper setting can be corrected by pressing the Function key  next to **VoIP gatekeeper.....** in the situation as illustrated by Fig. 45.

If the joint user to be logged on is to be the active user of the IP 200/202, this value can be set to **YES** by pressing the Function key  next to **Active user: NO.**

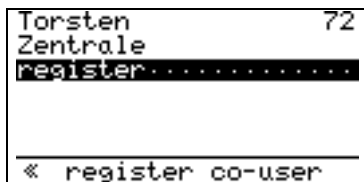


Fig. 48 Logging on a joint user




```

Directory .....
name :
number:
passw.:
VoIP gatekeeper.....
active user : no
* register co-user
    
```

Fig. 49 Logging on a joint user



Changing the user

If several users are logged on to your IP 200/202 and a connection is to be established under an identity other than that of the active user, the user must be changed as follows before establishing the connection:

1.	Press the Function key  next to switch user in the situation as illustrated by Fig 45.	The display switches to the list of users logged on to this IP 200/202.
2.	Press the Function key  next to the desired entry .	The <i>name (no.) changed</i> message appears. The display illustrated in Fig. 45 is returned to.

Logging off joint users

Users can be logged off from your IP 200/202 as follows:

1.	Press the Function key  next to unregister co-user in the situation as illustrated by Fig 45.	The display switches to the list of users logged on to this IP 200/202.
2.	Press the Function key  next to the desired entry .	The <i>name (no.) logged off</i> message appears. The selected joint user is now logged off and you return to the display illustrated in Fig. 45.

2.11 Switches menu

```
ringing.....
call waiting      :once
number present.  : on
headset          : off
direct dial      : off
destination number..
< switches
```

Fig. 50 Switches menu

2.11.1 Ringing


The integrated ring tone can be switched on or off (silent telephone). Furthermore it is possible to switch off the acoustic signalling of certain calls separately.

If, for example, the signalling of internal calls is switched off, internal calls are only signalled acoustically if the caller is marked in the telephone directory as a VIP.

```
ringing : on
internal calls : on
external calls : on
VIP calls : on
<< ringing
```


Fig. 51 Switches ringing menu

In the initial condition, press the keys,  **Menu, switches** .


1.	Press the Function key  next to ringing .	Switches from "on" to "off" or vice versa.
----	---	--

2.11.2 Call waiting


This function allows you to control the call waiting procedure during an existing telephone call.

1.	Press the Function key  next to call waiting .	Switches between "1 x", "on" and "off".
----	--	---

2.11.3 Calling line identification presentation


Press the Function key  next to **number present**, to switch calling line identification presentation on or off for outbound calls. This setting applies to all subsequent calls unless settings are made for individual calls.

It is possible to switch calling line identification presentation on or off separately both for prepared dialling as well as for dialling numbers from a list via the respective context menu.



1.	Press the Function key  next to number present .	The display switches between "on" and "off".
----	--	--



2.11.4 Headset



Press the Function key  next to **Headset** to switch the head set on or off.

1.	Press the Function key  next to Headset .	The display switches between "on" and "off".
----	---	--

2.11.5 Direct dialling

If direct dialling is switched on, the entered direct dialling number is dialled after picking up the handset or pressing the Loudspeaker key . All keys of the IP telephone are disabled, except for the **Menu** key .

In the initial condition, press the keys,  **Menu**, switches .

1.	Press the Function key  next to direct dial .	The display switches between "on" and "off".
2.	Press the Function key  next to destination number .	Enter the call number or name.

2.12 Configuration menu

For the advanced configuration of the IP 200/202 comfort telephone refer to the "Administrator Manual - innovaphone PBX". Administration which goes beyond that described in this manual may only be carried out by a system administrator. Please get in touch with your administrator for advanced configuration.

```
general settings .....
IP settings .....
registration .....
function keys .....
preferences .....
informations .....
< configuration
```

Fig. 52 Configuration menu

2.12.1 General settings configuration menu


Date/Time


The date and time can be set manually if it is not possible to receive the date and time automatically from a time server in the IP network. Furthermore, the time can be displayed in 12 or 24 hour format.

```
16:18 06.02.03
language : english
time : 13:00
* time/date/language
```

Fig. 53 Time/Date/Language configuration menu

In the initial condition, press the keys, **Menu, configuration** , **general settings** , **time/date/language** .


1.	Press the Function key  next to time/date/language .	You can set a new time and date using the digit keys (see Fig. 53).
----	--	---

2.	Press the Function key  next to time .	The time can be displayed either in 24 hour format ("13:00" displayed) or 12 hour format ("01:00 PM" displayed).
----	--	--




Language

The IP telephone can display text in different languages.

In the initial condition, press the keys,  **Menu, general settings** , **time/date/language** .

1.	Press the Function key  next to language .	The language is changed to one of the other options (see Fig. 53).
----	--	--

Location

In the initial condition, press the keys,  **Menu, general settings** , **location** .

```
country code   : |
area code     :
area prefix   :
country prefix :
CO line local :
-----
* location
```

Fig. 54 Location configuration menu

You can enter values for the

- **country code** (e.g. "49"),
- **area code** (e.g. "30" for Berlin),
- **area prefix** (e.g. "0"),
- **country prefix** (e.g. "00") and
- **CO line local** (e.g. "0") here.

Directories

In the initial condition, press the keys, **Menu, configuration**, **general settings**, **directories**.

You can use this function to determine which telephone directory is to be searched through in addition to the internal directory of the IP telephone. The additional directories **PBX directory** and **ext. directory** can be selected or deselected by pressing the respective Function keys (see Fig. 55) with the values "on" or "off".

The telephone directory (LDAP directory) of the innovaphone PBX is included in the search if the **PBX directory** menu item is set to "on".

The telephone directory (LDAP directory) of an external server is included in the search if the **ext. directory** menu item is set to "on".



Fig. 55 Directories configuration menu

Ring tone pattern

The ring tone pattern can be used to set the dial tone of the telephone.

In the initial condition, press the keys, **Menu, configuration**, **general settings**.


1.	Press the Function key next to dialtone type .	The display switches between "0", "1" and "2". "0" = interrupted dial tone of a PBX "1" = continuous dial tone "2" = US dial tone
----	---	--

Dial delay

Dial delay is the time in seconds until a digit is dialled after the digit has been





entered. Each digit is dialled directly after it has been entered if the time delay is set to 0. There is a delay of the time set in seconds if the dial delay is greater than 0. As a result, several digits can be entered consecutively. The number is dialled in a block (en-bloc dialling) only once the last digit has been entered and the set time has expired.

Tip

If a time which is greater than 0 has been set as dial delay, but you do not want to wait for that time to expire, you can, of course, also finish dialling by pressing the Enter key .



In the initial condition, press the keys,  **Menu, general settings** .

1.	Press the Function key next to  dial delay .	You can enter a value for the dial delay in seconds.
2.	<p>Press the Menu key  three times.</p> <p>Press the Function key  next to yes.</p> <p>Press the Function key  next to no.</p>	<p>The message and query setting changed. save changes? appears.</p> <p>The change <i>activated</i> message appears and the telephone returns to the main menu.</p> <p>The change <i>ignored</i> message appears and the telephone returns to the main menu.</p>




Resetting the configuration

Caution

If you perform this function, **all** data in the telephone is deleted and the telephone is reset to its initial condition.



In the initial condition, press the keys,  **Menu, general settings** .

1.	Press the Function key  next to reset configuration .	You are then asked whether the device is to be reset to its initial condition.
2.	Press the Function key  next to yes . or Press the Function key  next to no .	The entire configuration is deleted and the telephone is reset to its initial condition. The previous menu is returned to.

2.12.2 Network configuration menu

The administrative network data is set up in the **configuration > IP settings** menu. These entries may only be made by the system administrator and are therefore not explained in detail here. Please get in touch with your administrator for advanced configuration. Refer also to the "Administrator Manual - innovaphone PBX".

2.12.3 Registration configuration menu

The IP 200/202 is registered in the **configuration > registration** menu. These entries may only be made by the system administrator and are therefore not explained in detail here. Please get in touch with your administrator for advanced configuration. Refer also to the "Administrator Manual - innovaphone PBX".

2.12.4 Function key configuration menu

Programming Function keys


The six Function keys  on the right, next to the display can be programmed separately as Function keys.



Fig. 56 Function key configuration menu

In the initial condition, press the keys, **Menu, configuration** and **function keys** and then the key to be programmed between **F0** and **F5** (see Fig. 57). Alternatively, in the initial condition you can press the Shift key together with the Function key to be programmed.

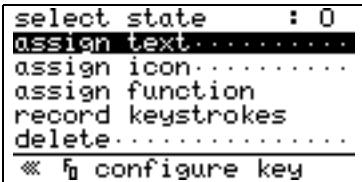
















Fig. 57 Assigning a Function key









Up to 4 symbols/function pairs can be assigned to a Function key. They correspond to the statuses 0 to 3.

Any text or pre-prepared icon can be assigned as a symbol. A pre-defined function or any key combination can be assigned as a function.

The function assigned to the current status is performed at the press of the key. The next defined status is then set for the key, with the effect that the corresponding function is performed the next time the key is pressed. The pre-defined functions specified in Table 6 can be assigned.

1.	In the situation as illustrated in Fig. 57, press the Function key next to select state repeatedly until the desired status is selected.	Up to 4 symbols/function pairs can be assigned to each Function key. They correspond to the statuses 0 to 3.
----	---	--

2.	<p>Press the Function key  next to assign text. or</p> <p>Press the Function key  next to assign icon.</p>	<p>A text can now be assigned to the Function key using the character keypad or</p> <p>An icon can now be assigned to a Function key by pressing the relevant Function key several times.</p>
3.	<p>Press the  Menu key.</p>	<p>The assigned text or the assigned icon is saved as a menu item.</p>
4.	<p>Press the Function key  next to assign function to assign a function.</p> <p>Press the Function key  next to the desired entry. Press the Function key  next to yes or Press the Function key  next to no.</p>	<p>The Arrow keys  and  can be used to scroll through the list of pre-defined functions (refer to Table 6).</p> <p>The Assign function? query appears. The display illustrated in Fig. 57 is returned to.</p> <p>The list of functions is returned to.</p>
5.	<p>Press the Function key  next to record keystrokes to assign a key combination.</p> <p>Press the Function key  next to yes. Press the Shift key  and Clearing  key.</p> <p>Press the Function key  next to yes.</p>	<p>The Record keystrokes? query appears. ?</p> <p>The key combination recording process begins. The recording is completed and the Save recording? query appears. The message and query Setting changed. Save recording? appears.</p>

<p>5. Cont.</p>	<p>Press the Function key  next to yes.</p> <p>Press the Function key  next to no.</p> <p>Press the Function key  next to no. Press the Function key  next to yes.</p> <p>Press the Function key  next to no. Press the Function key  next to yes.</p> <p>Press the Function key  next to no.</p> <p>Press the Function key  next to no.</p>	<p>The change activated message appears and the telephone returns to its initial condition.</p> <p>The change ignored message appears and the telephone returns to its initial condition.</p> <p>The check recording? query appears. The recorded key combination is checked.</p> <p>The edit further key? query appears. The display illustrated in Fig. 56 is returned to. The initial condition is returned to.</p> <p>The display illustrated in Fig. 57 is returned to.</p>
---------------------	--	--

The following pre-defined functions are available for programming the Function keys.

Function	Description
<p>Dialling preparation</p>	<p>This function can be used to enter a phone number or copy an entry from the telephone directory. The number assigned to the key is displayed if the Function key is pressed. The call is initiated by picking up the handset or pressing the Loudspeaker key. The display is deleted either automatically</p>

Function	Description
Cont.	After ten seconds or by pressing another key. The next status is set, regardless of whether the number has been dialled or not.
Abbreviated dialling	This function can be used to enter a phone number or copy an entry from the telephone directory. A call is initiated immediately in hands-free mode.
Call diversion	A phone number can be entered or an entry from the telephone directory copied for each type of diversion.
Call diversion off	The call diversion is cancelled by pressing this Function key.
Lock telephone	The telephone is locked by pressing this Function key.
Bell off Bell on	The bell is switched on or off by pressing this Function key.
Alternative bell	You can replace all bell settings temporarily by an alternative setting by pressing this Function key.
Call waiting off Call waiting once	Call waiting is switched on or off by pressing this Function key.
CLIP off CLIP on	Calling line identification presentation is switched on or off by pressing this Function key.
Log on joint user Log off joint user	A defined joint user is logged on or off by pressing this Function key.

Function	Description
Cont.	He/She must be specified by an entry in the telephone directory or stored manually with name, call number and password.
Changing the user	A defined joint user can be configured as an active user by pressing this Function key.
Partner	This key is used to implement abbreviated dialling or pick up a call for the configured partner. The precise function of the key can be taken from the adjacent display. The display shows the status (free, ringing, engaged) of the partner. In ringing status, the key is used to pick up calls. In idle mode the key is used as abbreviated dialling key.
Pickup list	All telephones of the group currently ringing and the number of the caller are displayed by pressing this Function key.
Headset off Headset on	The headset is switched on or off by pressing this Function key.
Calls (inbound)	The list of incoming calls is called up by pressing this Function key.
Announcement	A connection is established to the indicated opposite party by pressing this Function key. The opposite party answers the call automatically in loudspeaker mode.
Logging on Logging off	It is possible to log on or off more quickly as a new user without storing the data permanently by pressing this function key.

Table 6 Function options for the programmed Function keys



Note

The **Partner**, **Pickup list** and **Announcement** functions can only be used if the configuring user and the user to be configured belong to the same group. The same group is selected from the **Group indications** menu in the configuration menu of the respective user in the innovaphone PBX.



Tip

Programmed Function keys can only be used while the telephone is in idle mode.

2.12.5 Preferences configuration menu



```
name: Madonna
ring melody (int)...
ring melody (ext)...
distinct. ring : off

<< preferences
```

Fig. 58 Preferences configuration menu




Assigning a telephone name

The IP 200/202 telephone can be given a name, which, in its initial condition, is displayed at the top left of the display.

1.	Press the Function key  next to name: in the situation as illustrated by Fig. 58.	The cursor is in the field for the telephone name.
2.	Enter the telephone name using the character keypad.	
3.	Press the Menu key  twice.	The call diversion menu is displayed again.

Ring tone

The volume, melody and speed of the ring tone can be set separately for internal and external calls.

In the initial condition, press the keys, **Menu, configuration** , **preferences** , **ringing tone**  (see Fig. 59).

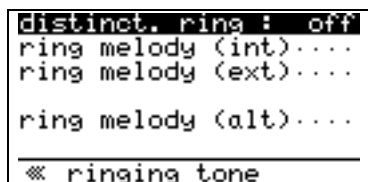


Fig. 59 Ringing tone menu

Setting the internal ring tone

To set the internal ring tone, press the **ring melody (int)**  key in the situation as illustrated by Fig. 59.

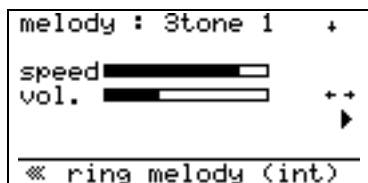



Fig. 60 Internal ring tone menu

Setting the external ring tone

To set the external ring tone, press the **ring melody (ext)**  key in the situation as illustrated by Fig. 59.

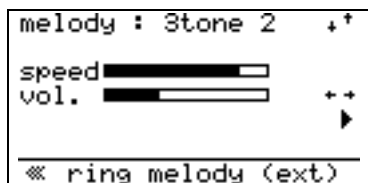



Fig. 61 External ring tone menu

Setting an alternative ring tone

To set the alternative ring tone, press the **alternative ring tone**  key in the situation as illustrated by Fig. 59.

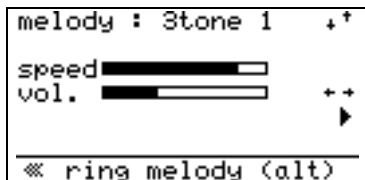










Fig. 62 Alternative ring tone menu





Selecting a melody:



1.	Press the Arrow key  or  in the situation as illustrated by Fig. 60 or 61.	You can use the keys to scroll through the melody list until the desired entry is marked.
----	--	---

Listening to a melody:



1.	Press the Function key  next to the symbol  in the situation illustrated in Fig. 60 or 61. The symbol changes from  to  .	The playback function is activated. The ring tone is played with the current melody, speed and volume settings.
2.	The ring tone is interrupted by pressing the same Function key  (symbol  .	The ringing stops.

Selecting the volume and speed:

1.	Press the Function key  next to speed in the situation illustrated in Fig. 60 or 61.	
2.	Press the Arrow key  or  .	The melody is played more slowly or quickly.
3.	Press the Function key  next to vol.	

4.	Press the Arrow key  or  .	The melody is played quieter or louder.
----	--	---





Tip

Press the Function key  for playback  before changing the melody, volume or speed of the ring tone. You can then directly hear the changes made. Press the same Function key again to stop the ring tone being played after setting the ring tone of your choice.



Call groups

The IP 200/202 telephone can be assigned up to three call groups for which separate ring tones can be set in the **configuration > preferences > call groups** menu.







In the initial condition, press the keys, **Menu** , **configuration** , **preferences** , **call groups** . The following is displayed:

```

group number.....
ring melody.....
group number.....
ring melody
group number.....
ring melody
-----
* call groups
    
```





Fig. 63 Call groups preferences configuration menu

Proceed as follows to make the settings:

1.	Press the Function key  next to call groups in the situation as illustrated by Fig 58.	The display switches to the menu illustrated by Fig. 63.
2.	Press the Function key  next to group number .	Enter the call number of the desired group.
3.	Press the Function key  next to ring melody .	Set the desired ring tone in accordance with the Section , "Ring tone" beginning on page 79.
4.	<p>Press the Menu key  four times.</p> <p>Press the Function key  next to yes.</p> <p>Press the Function key  next to no.</p>	<p>The message and query Setting changed. Save changes? appears.</p> <p>The change activated message appears and the telephone returns to its initial condition.</p> <p>The change ignored message appears and the telephone returns to the main menu.</p>

Partners

The basic settings regarding the way the **Partner** function is to be signalled are made in the **configuration > preferences > partners** menu. The Partners function is described in Section , "Partner function" beginning on page 42.








In the initial condition, press the keys, **Menu** , **configuration** , **preferences** , **partners** . The following is displayed:

```
state -> LED
ringing->blinks: yes
speaking->on    : no

alert tone      : off
delay (seconds): 10
-----
* partners
```





Fig. 64 Partners preferences configuration menu

Proceed as follows to make the settings:

1.	Press the Function key  next to ringing >blinks: in the situation as illustrated by Fig 64.	The display switches between "yes" and "no". yes= As soon as there is an active call for a partner or pickup list, the Handset LED additionally flashes on the right side above the display. no= The LED does not flash if there is an active call for the partner or pickup list.
2.	Press the Function key  next to speaking >on: in the situation as illustrated by Fig 64.	The display switches between "yes" and "no". yes = switches on the additional information that the line for the partner or pickup list is engaged. no = additional information switched off if the line is engaged.
3.	Press the Function key  next to alert tone: in the situation as illustrated by Fig 64.	The display switches between "on" and "off". on = additional acoustic information after the set time. off = additional acoustic information switched off.
4.	Press the Function key  next to delay (seconds): in the situation as illustrated by Fig 64.	Setting option for the time in seconds after which the alert tone is to be activated.
5.	<p>Press the Menu key  three times.</p> <p>Press the Function key  next to yes.</p> <p>Press the Function key  next to no.</p>	<p>The message and query Setting changed. Save changes? appears.</p> <p>The change <i>activated</i> message appears and the telephone returns to its initial condition.</p> <p>The change <i>ignored</i> message appears and the telephone returns to the main menu.</p>

Pickup list

The basic settings regarding the way the **Pickup list** function is to be signalled are made in the **configuration > preferences > pickup list** menu. The Pickup list function is described in the Section , "Pickup List function" beginning on page 44.

In the initial condition, press the keys, **Menu** , **configuration** , **preferences** , **pickup list** . The following is displayed:

```
state -> LED
pickup->blinks: no
speaking->on : no

alert tone : off
delay (seconds): 10
-----
* pickup list
```

Fig. 65 Pickup list preferences configuration menu

To make the settings, proceed in accordance with the description in the Section , "Partners" beginning on page 82.

2.12.6 Information configuration menu

In the initial condition, press the keys:  **Menu**, **Configuration** , **General settings** , **Information** .

```
calls.....

memory.....
version.....
-----
* informations
```

Fig. 66 Information configuration menu





In this menu you can view the number of outgoing and incoming calls since the last date was saved and have the memory assignment displayed. Furthermore, the version numbers of the firmware and the boot code and the serial number can be displayed.

Displaying call statistics

```


since --.---.--- --!--
outgoing          7
incoming          3
delete .....
* calls
    
```

Fig. 67 Calls information configuration menu

1.	Press the Function key  next to calls in the situation illustrated in Fig. 66.	The number of outgoing and incoming calls since the displayed date is displayed (see Figure 67).
2.	<p>Press the Function key  next to delete.</p> <p>Press the Function key  next to yes.</p> <p>Press the Function key  next to no.</p>	<p>The delete? query appears.</p> <p>The date is set to the current value and the counters for outgoing and incoming calls are set to 0.</p> <p>The display illustrated in Fig. 67 is returned to.</p>

Displaying the memory assignment

If the technical support of innovaphone® AG asks you to specify the memory data, you can display it as follows:

1.	Press the Function key  next to memory in the situation illustrated in Fig. 66.	The memory assignment values for the directory , call lists and configuration data (see Fig. 68) are displayed.
----	---	--

directory			
1(63)	64	256	
call lists			
1(63)	64	64	
configuration data			
1(63)	64	64	
<hr/>			
☛ memory			

Fig. 68 Memory information configuration menu



Tip

This information is only of interest for support purposes.


Displaying version numbers

```

V5.00 beta3
IP200[02-5258]
Bootcode[205]
HWC202[ 2048/8192

ser 00-90-33-03-13-23
* version
    
```

Fig. 69 Version information configuration menu

1.	Press the Function key  next to version in the situation as illustrated in Fig. 66.	The firmware version number, the boot code version number and the serial number are displayed (see Fig. 69).
----	---	--

2.13 Administration interface browser

Refer to the "Administrator Manual - innovaphone PBX" for further details on the administration interface browser of the IP 200/202 comfort telephone. Administration which goes beyond that described in this manual may only be carried out by a system administrator. Please get in touch with your administrator for advanced configuration.

A **quick setup** is available for the initial installation of the IP 200/202, which can be called up by means of the administration interface browser of the IP 200/202 comfort telephone (refer to "Administrator Manual - innovaphone PBX").

3 IP 21 adapter

3.1 Top view of the IP 21

There are no connectors on the top of the international and 1-channel versions of the IP 21. The **TAE** sockets specified in Table 7 (positions 8 to 11) are on the top of the German 2-channel version of the IP 21.

Please observe that only one call can be active at a time at both **TEL1** and **TEL2**.

Furthermore the indicators specified in Table 7 (positions 1 to 7) are on the top of the IP 21.

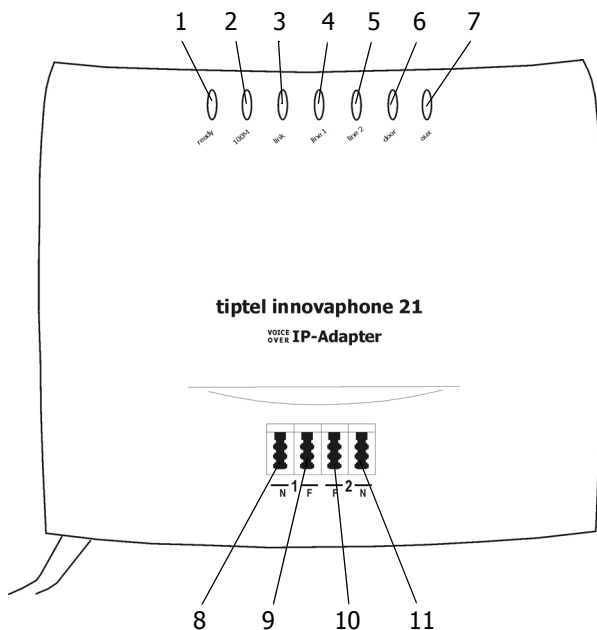


Fig. 70 Connectors of the IP 21

Pos.	Designation	Meaning/Function
1	ready	LED is on: device is switched on and the configuration is OK.
2	100 M	10/100 Mbps Ethernet control LED; goes on if a 100 Mbps Ethernet link is identified.
3	link	LED goes on whenever an Ethernet link is ready for data transmission. The LED flashes in the event of activity.
4	line 1	LED indicates that TEL1 (1 N or 1 F) is active.
5	line 2	LED indicates that TEL2 (2 N or 2 F) is active.
6	door	LED indicates that DOOR (door intercom system) is active.
7	aux	LED indicates that AUX (audio interface) is active.
8	1 N	TAE socket for connecting a fax machine, answering machine or modem to TEL1 .
9	1 F	TAE socket for connecting a telephone to TEL1 .
10	2 F	TAE socket for connecting a telephone to TEL2 .
11	2 N	TAE socket for connecting a fax machine, answering machine or modem to TEL2 .

Table 7 Connectors and indicators on the top of the IP 21

3.2 Front view of the IP 21

The following connectors and control elements are on the front of the IP 21:

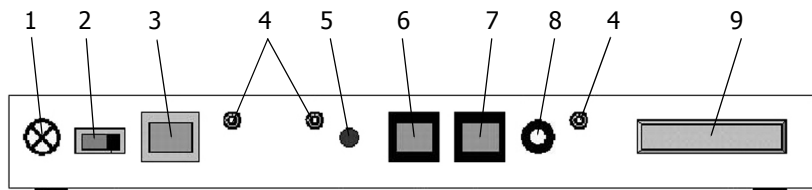


Fig. 71 Connectors on the front of the IP 21

Pos.	Designation	Description
1		Mains lead
2	Ethernet switch	For switching over the Ethernet connection Left position: IP 21 connected to Hub/Switch Right position: IP 21 connected directly to a PC
3	Ethernet socket	Ethernet RJ 45 socket for connecting an Ethernet hub/switch or directly to a PC
4		Cable inlets
5		Reset button
6	TEL1	RJ 11 socket for connecting an analogue terminal to TEL1
7	TEL2	RJ 11 socket for connecting an analogue terminal to TEL2
8	AUX	3.5 mm stereo jack for connecting an audio source to AUX
9	DOOR	4+n connector with 15-pole terminal strip for connecting a door intercom system

Table 8 Connectors and control elements on the front of the IP 21

3.3 Putting the adapter into service

The IP 21 is connected and configured by the administrator. The “innovaphone Administrator Manual - VoIP Gateways” should be observed for the configuration of the VoIP terminals.

3.4 Operating instructions

3.4.1 The analogue terminal interfaces

The two analogue interfaces of the IP 21, **TEL1** and **TEL2** are designed solely for analogue terminals (the interfaces are referred to as FXS interfaces). Typically, an analogue telephone or group 3 fax machine can be connected to them. The connection of analogue PBX systems is not intended.

Call waiting

The analogue interfaces support the **Call waiting** function. If a call arrives while another call is already being made, it is indicated by a **knocking tone** at the active terminal. This function is not desired if a fax machine is connected to the interface, since the knocking tone would interfere with fax transmission. Refer to the section “Considerations on the configuration of analogue interfaces” in the “innovaphone Administrator Manual - VoIP Gateways” for further configuration.

- Switch to **Analogue interfaces > TEL1** in the configuration applet or to the connection with the analogue terminal.
- Tick the **Busy on busy** checkbox if a fax machine is connected or call waiting is not desired for the telephone.

Performance features at analogue connections

If a telephone is connected to **TEL1** or **TEL2**, it can benefit from certain advanced performance features such as holding, switching and transferring via **Flash/DTMF** sequences.

Performance feature	Description	Usage
Answering a call indicated by a knocking tone while terminating the current call	During an active call you receive a further call indicated by a knocking tone. You want to terminate the active call and then answer the call indicated by the knocking tone.	<ul style="list-style-type: none"> • You hear the knocking tone. • Hang up. • The active call is terminated and the phone rings again. • Answer the call as usual. • The call previously indicated by a knocking tone is now active.
Answering a call indicated by a knocking tone without terminating the first connection	During an active call you receive a further call indicated by a knocking tone. You want to answer this call without terminating the current call.	<ul style="list-style-type: none"> • You hear the knocking tone. • Press the R key¹. • Dial 2. • The first call is put on hold and the call indicated previously by a knocking tone is now active.
Rejecting the call indicated by a knocking tone	During an active call you receive a further call indicated by a knocking tone. You do not want to answer this call.	<ul style="list-style-type: none"> • Press the R key. • Dial 0.
Refer-back	You want to establish a second connection during an active call.	<ul style="list-style-type: none"> • Press the R key. • Dial the desired call number. • The first call is put on hold and the new connection is established.

Performance feature	Description	Usage
Switching	You are making two simultaneous calls and want to switch from one to the other.	<ul style="list-style-type: none"> • Press the R key. • Dial 2. • The call previously active is put on hold and the call previously on hold becomes active.
Connect	You want to connect an active call to a call on hold.	<ul style="list-style-type: none"> • Hang up.
Terminating one of two calls	You have two simultaneous calls and want to terminate one of them.	<ul style="list-style-type: none"> • Press the R key. • Dial 1. • The active call is terminated.
Three-party conference ²	You have two simultaneous calls and want to set up a three-party conference.	<ul style="list-style-type: none"> • Press the R key. • Dial 3. • All three subscribers are now connected together.

1. The R key is also referred to as the Flash key or Hook/Flash key.

2. Please observe that this function requires two installed DSP channels. Furthermore, the IP-21 is no longer available for further calls at other interfaces in this mode.

Table 9 Advanced performance features at analogue connections

3.4.2 Adjusting the volume of the analogue connection

Depending on the analogue terminal connected, the volume of the device may seem to be too high or too low. The volume of the IP 21 can be adjusted.

- Start the configuration applet of the IP 21 via the **Config** menu item from the **Gateway** menu.
- Select **Analogue interfaces > TEL1** or the connection with the analogue terminal.

innovaphone

- Enter a value between -31 and 32 in the **Volume** field in the **Interface configuration** area. The default volume setting is adopted if the field remains empty.

A value between -31 and 0 reduces the volume.

A value between 0 and 32 increases the volume.

Interface name	
Description	<input type="text"/>
Interface configuration	
<input type="checkbox"/>	Trace
<input type="checkbox"/>	Reverse powerfeeding
<input type="checkbox"/>	Busy on busy (no call waiting tones) (NEEDS TO BE ON FOR FAX DEVICES)
Volume [-31..32]	<input type="text"/>

Fig. 72 Volume adjustment to the analogue connection of the IP 21

4 IP 10 USB telephone

The IP 10 USB telephone allows the innovaphone SoftwarePhone to be used conveniently. The innovaphone SoftwarePhone must first be installed and set up in order to use the IP 10 USB telephone. Refer to Section 5, "innovaphone SoftwarePhone" beginning on page 101.

4.1 Top view of the IP 10

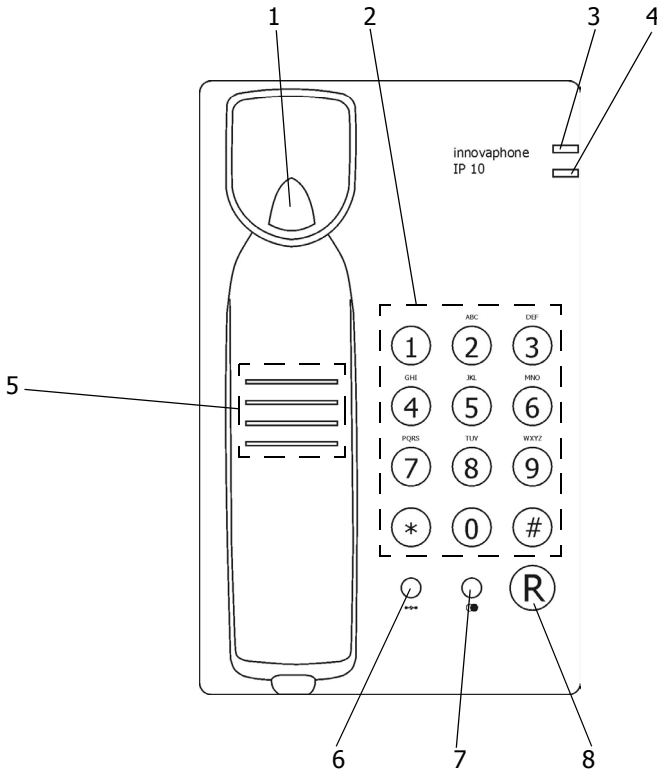


Fig. 73 Top of the IP 10 USB telephone

Pos.	Symbol	Description and key function
1		Handset support
2		Dial keypad Digit keys for entering phone numbers The Star and Hash keys have special functions for touch-tone dialling.
3		Upper LED (without function)
4		Lower LED The lower LED goes on whenever the handset is picked up and flashes if there is an incoming call.
5		Loudspeaker for ring tone
6		The Clearing key is used to terminate calls.
7		The Redial key is used to select the list of phone numbers last dialled.
8		The Refer-back key is used to enable the "Hold" and "Switch" functions.

4.2 Putting the telephone into service

4.2.1 Connecting the telephone

Your USB telephone is designed as a terminal to be connected to a USB connector of your PC. Connect all necessary cables before putting your device into service.

- Insert the plug (RJ 11) of the handset spiral cable into the socket on the left side of the IP 10.
- Plug the supplied USB connection cable into the "USB" socket on the back of the IP 10 and the other end into a USB socket of your PC.


4.3 Phoning

4.3.1 Answering a call

You receive a call. Your telephone rings and the lower LED flashes. If you would like to answer the call:


1.	Pick up the handset.	You are connected to the caller and can make a call.
----	----------------------	--

If you would like to reject the call:

1.	Press the Clearing key  .	The telephone returns to idle mode.
----	--	-------------------------------------

4.3.2 Terminating a call

If you would like to terminate an existing connection:

1.	Hang up or press the Clearing key  .	The connection is terminated.
----	---	-------------------------------

4.3.3 Direct manual dialling

In this case, the USB telephone dials the number while it is being entered. All digits which are entered are transmitted as DTMF signals during existing connections. You can remote control terminals this way.

1.	Pick up the handset and enter the call number using the keys.	The telephone dials the number.
2.	Replace the handset after the call.	The telephone returns to its initial condition.

4.3.4 Redialling

The call number last dialled is saved and can be dialled again.

3.	Press the Redial key  .	The telephone starts to dial the call number last dialled.
----	--	--




Tip

The setting of the call number dialled last is lost if the USB telephone is disconnected from the network.



4.3.5 Making a refer-back call

The line can be put on hold during a call. With the call on hold, you can make a refer-back call to another subscriber. Your conversation partner on the line put on hold cannot listen to this refer-back call. The Hold function is also required to initiate the Switch and Transfer functions.

1.	Press the Refer-back key  .	Your conversation partner is put on hold. You hear a dial tone.
2.	Dial the call number.	A further connection is established.


4.3.6 Switching

You can switch between two lines using the Switch function.

1.	Press the Refer-back key  and wait for the special dial tone during a call with an active line and a line on hold.	The special dial tone can be heard.
2.	Press the  key.	The active line is put on hold and the line on hold activated.

4.3.7 Transferring a call

You are making a call and would like to transfer it to another line.

1.	Press the Refer-back key  during a call.	Your conversation partner is put on hold. You hear a dial tone.
2.	Dial the desired call number.	The connection is established. If the subscriber happens to answer, you can make a call with him/her in the same way as with a refer-back call.
3.	Replace the handset.	The caller is connected to the dialled line.

Tip



When transferring a call, you do not have to wait until the desired subscriber answers. The handset can be replaced immediately once the phone number has been dialled.




4.3.8 Call waiting

Someone tries to call you during a call. This is indicated by a knocking tone.

Answering a call indicated by a knocking tone:

1.	Press the Refer-back key  and wait for the special dial tone if you hear the knocking tone during a call.	The active line is now put on hold. The special dial tone can be heard.
2.	Press the  key.	The call indicated by a knocking tone is answered.

Tip

Press the Clearing key  if you would like to terminate the current call before answering the call indicated by a knocking tone.



Rejecting a waiting call:

1.	Press the Refer-back key Ⓜ and wait for the special dial tone if you hear the knocking tone during a call.	The active line is on hold and music on hold is played. The special dial tone can be heard.
2.	Press the ⓪ key.	The call indicated by a knocking tone is rejected and the previous call is activated again.

4.4 User interface of the IP 10 software

The user interface of the IP 10 Software is displayed and described in detail in Section 5, "innovaphone SoftwarePhone" beginning on page 101. Refer to Section 5, "innovaphone SoftwarePhone" beginning on page 101 for the operation of the user interface of the IP 10 software.

5 innovaphone SoftwarePhone

The innovaphone SoftwarePhone is a IP telephone software solution for Windows PCs. SoftwarePhone supports audio streaming with sound cards, USB telephones (innovaphone IP 10), USB headsets and Bluetooth headsets. The software is operated by a USB telephone, keyboard or mouse.

5.1 System requirements

- Intel PC with a processor of at least 350 MHz
- Windows 98SE, ME, NT 4.0, 2000 or Windows XP operating system

Caution

Please observe that the SoftwarePhone cannot be performed as Windows Service with Windows 98SE and Windows ME, since these Windows versions do not support Services.



- Installed full duplex sound card or USB telephone (e. g. innovaphone IP 10) or USB headset.

Caution

Please observe that USB telephones are not supported with Windows NT 4.0.



- innovaphone gatekeeper or innovaphone PBX

5.2 Installation

Note

Please deinstall older innovaphone SoftwarePhone versions before installing a new version (refer to Section 5.2.1). Make sure you have the administrator rights for the installation of innovaphone SoftwarePhone.



Start the Install program of the software package after downloading and unpacking the software. A set-up wizard appears to provide you with helpful information during the installation. Proceed as follows:

Click on **Next**.

Actuate the **I Agree** button to accept the licence contract.

Actuate the **I Do Not Agree** button if you do not want to accept the licence contract. In this case the installation is aborted.

Click on **Next**.

Determine the installation path.

Determine whether the installation is able to be accessed by every user (**Everyone**) or only by the current user of this computer (**Just me**).



Caution

This means that the installation can only be used by the user currently logged onto this Windows PC. The application is no longer available as soon as someone logs on to this computer with a different name.

Click on **Next**.

All the parameters required are now specified. Confirm the copying procedure with **Next** and then complete the installation with **Close**.

The SoftwarePhone is available in German and English. The language which is displayed is based on the language version of your Windows operating system.

You can find the following entries under **Start > Programs > innovaphone > SoftwarePhone** after installing the program:

- **SoftwarePhone** (the main program).
- **Setup Wizard** (a configuration aid which is easy to use and allows the basic configuration of the SoftwarePhone environment).
- **Setup** (configuration application for advanced users).
- **Working directory** (link to a directory in which trace and debug information of the SoftwarePhone is stored).

The **Setup Wizard** program is automatically called up the first time the **SoftwarePhone** program is called up. The **Setup Wizard** is also called up if the configuration of the sound card or the USB configuration is changed.

The SoftwarePhone setup program is called up by pressing the **Setup** button.

The directory is opened in which the innovaphone SoftwarePhone stores the trace and debug information by pressing the **Working directory** button.

5.2.1 Deinstallation

The SoftwarePhone can be easily removed from your system by means of the deinstallation routine. Select **Control Panel > Software** on your Windows operating system. Select **innovaphone SoftwarePhone** and press the **Remove** button. The installation routine asks for permission to delete the files and directories which have been created by the application.

5.3 Configuration with Setup Wizard

- Start the **Setup Wizard** program from the Windows program directory. The **innovaphone SoftwarePhone configuration wizard** appears, see Fig. 74.



Fig. 74 SoftwarePhone configuration wizard - audio devices

- Select the loudspeaker of your choice in the **Speaker** area. This is **USB audio device** if an IP 10 USB telephone is connected.
- Select the microphone of your choice in the **Microphone** area. This is **USB audio device** if an IP 10 USB telephone is connected.
- Select the device of your choice for signalling calls in the **Ringing device** area. If **USB audio device** is selected, calls are signalled by the connected USB telephone (IP 10).
- Confirm your entries with **Next**. You go to Fig. 75 after selecting a USB device (e. g. IP 10). If no USB device is connected, you go to Fig. 76.



Fig. 75 SoftwarePhone configuration wizard - USB keypad device

- Select the device of your choice in the **USB Keypad** area. This is **Handset for VoIP** if an IP 10 USB telephone is connected.
- Confirm your entries with **Next**. You go to Fig. 76.
- Enter the gatekeeper IP address and/or the name of the gatekeeper at which the USB telephone is to be registered in the **Gatekeeper** area.
- Enter the name (**Name**) and/or the call number (**Number**) and the password (**Password**) used to register the USB telephone in the innovaphone PBX in the **Registration** area. The password only has to be entered if it has been configured.



Fig. 76 SoftwarePhone configuration wizard - Registration page

- Confirm your entries with **Next**. You then go to Fig. 77.



Fig. 77 SoftwarePhone configuration wizard - Dialing Location page

The location is set up in the next step. Enter values for the

- **International prefix (Auslandspräfix)** (e.g. "00"),
- **Country code (Landeskennung)** (e.g. "49"),
- **National prefix (Inlandspräfix)** (e.g. "0"),
- **Area code without "0" (Ortskennung)** (e.g. "30" for Berlin) and
- **PBX prefix (Amtsholung)** (e.g. "0") in the respective fields.
- Confirm your entries with **Next**. You then go to Fig. 78.



Fig. 78 SoftwarePhone configuration wizard - Licence page

Three types of licences can be selected on the Licence page for the operation of the innovaphone SoftwarePhone.

- The **Demo license** option allows you to try out the innovaphone SoftwarePhone. All functions can be used to their full extent with this option. This usage is restricted to a certain amount of time however. After 30 minutes a message is displayed, informing you that the SoftwarePhone has been ended. The application can then be restarted.
- The **PBX license** option allows you to use a licence from the innovaphone PBX pool (e. g. IP 400), provided a PBX has been set up in the network and a licence is still available.
- The **Static license** option allows you to store a licence directly in the innovaphone SoftwarePhone and does not depend on an innovaphone PBX.

The syntax of the licence is:

SoftwarePhones=1,Licensed for yyy,xxxx-xxxx-xxxx-xxxx

Refer to the "Administrator Manual - innovaphone PBX" for further information on the innovaphone licence model.

- Actuate the **Finish** button to close the configuration wizard and save the settings.

5.4 Configuration with Setup

- Start the **Setup** program from the Windows program directory. The **innovaphone SoftwarePhone Setup** appears and the first index card (**Application**) is active, see Fig. 79.

5.4.1 Application index card

- Select whether the **SoftwarePhone** application is to be started manually (**Manually**) or automatically whenever the user logs on (**At Login**) in the **Run Mode** area.
- Select a priority for audio streaming in the **Priority** area. We recommend selecting **realtime** for the USB telephone, provided it is allowed by the resources of the PC. Select the **normal** setting otherwise.
- Select a language for the user interface of the innovaphone SoftwarePhone in the **Language** area.



Fig. 79 innovaphone SoftwarePhone Setup Application index card

- The directory in which user-specific settings, e. g. the log file of the trace protocol, are saved is displayed in the **User Directory** area, see Section 5.4.10, "Trace index card" beginning on page 115.

5.4.2 Audio index card

- Select the **Audio** index card.
- You can select the device for loudspeaker output in the **Speaker** area. The device previously selected in the configuration wizard is displayed here.
- You can select the device for microphone input in the **Microphone** area. The device previously selected in the configuration wizard is displayed here.
- You can determine the size of the voice packets in the **Frame Size (ms)** field in the **Wave Configuration** area. These values usually do not have to be changed. You should only change them if there are problems regarding voice transmission and you are using old hardware.
- You can set a reliable clock source in the **Clock Source** field in order to play sound. This is usually achieved with the default value **wave in**. If you have an old PC, it may under certain circumstances become necessary to select the value **external** in order to use the PC clock as clock source. If the sound card is defective, you may be able to solve this problem by selecting **wave out**.

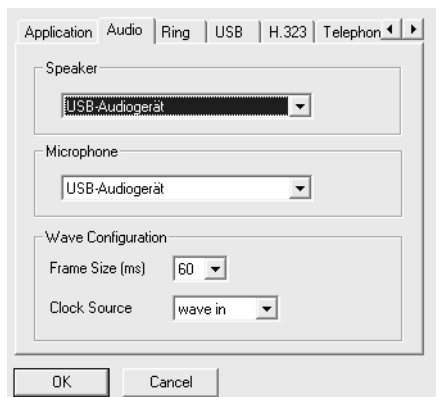


Fig. 80 innovaphone SoftwarePhone Setup Audio index card

5.4.3 Ring index card

- Select the **Ring** index card.
- You can select the call signalling device in the **Ring** area. The device previously selected in the configuration wizard is displayed here.
- The call signalling device can be deactivated by deselecting the **Ring through device** checkbox.
- Calls can be signalled (alternatively or additionally) over the system loudspeakers of the PC by ticking the **Ring through system speaker** checkbox.



Fig. 81 innovaphone SoftwarePhone Setup Ring index card

5.4.4 USB index card

- Select the **USB** index card.
- Select the device used to make entries in the **Device** field in the **USB Keypad** area. The device previously selected in the configuration wizard is displayed here.
- The map of the key assignment used can be selected in the **Map** field. If, for example, a USB telephone is used without a Flash key but with a number of other keys without functions, a map of your own can be generated which assigns the keys to the functions of your choice.

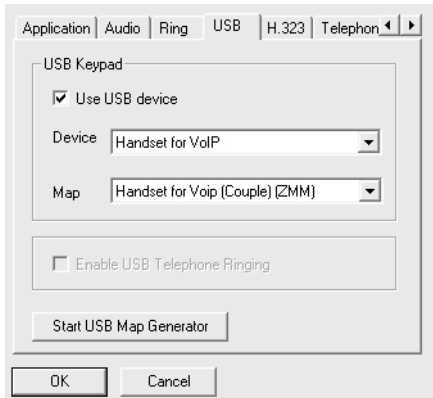


Fig. 82 innovaphone SoftwarePhone Setup USB index card

- You can activate the bell integrated in the telephone by ticking the **Enable USB Telephone Ringing** checkbox if the IP 10 USB telephone is used.
- The **Start USB Map Generator** button can be used to start an application for the key assignment of external devices, i.e. for the generation of a separate map. It is not necessary to perform this function for the IP 10 USB telephone. Please get in touch with the technical support of innovaphone® AG for information on the usage of the USB map generator.

5.4.5 H.323 index card

- Select the **H.323** index card.
- The identity of the current user is selected in the **Identity** area. The **default** setting is usually selected. The registration of a further user or the registration at a further gatekeeper is also possible however. Further identities can be created by clicking on the **+** button. If you want to create a further identity, enter a name first and then continue with the configuration of the following points. A maximum of six different identities can be created. Identities are deleted by clicking on the **-** button.
- Enter the gatekeeper IP address and/or the name of the gatekeeper at which the previously selected identity of the USB telephone is to be registered in the **Gatekeeper** area.

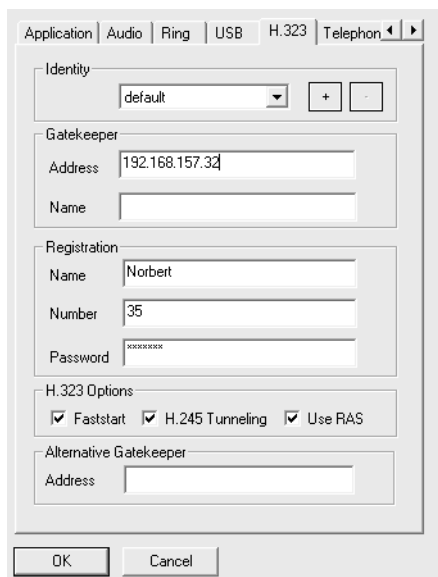


Fig. 83 innovaphone SoftwarePhone Setup H.323 index card

- Enter the name (**Name**) and/or the call number (**Number**) and the password (**Password**), if available, used to register the USB telephone in the innovaphone PBX in the **Registration** area.
- The **Faststart**, **H.245 Tunneling** and **RAS** options can be activated in the **H.323 Options** area.
- Provided it is available (e. g. with redundant systems), enter the gatekeeper IP address of the standby gatekeeper which takes over the tasks of the gatekeeper in the event of a failure in the **Alternative Gatekeeper** area.

5.4.6 Telephone index card

- Select the **Telephone** index card.
- Tick the **Send Calling Line Identification** checkbox if you would like to transmit the call number (**CLIP**).
- Tick the **Enable Call Waiting** checkbox if you want to activate the **Call Waiting** function. The called party can hear a call waiting tone if this option is activated. If this option is deactivated, the calling party can hear a busy

tone if a call is already being made on the called line.

- You can set the type of dial tone you would like to hear after picking up the handset in the **Tone Type** area. The **german pbx**, **german public**, **us** und **british** options are available.



Fig. 84 innovaphone SoftwarePhone Setup Telephone index card

- You can enter the dial delay in seconds for the en-bloc dialling timeout in the **Dial delay in seconds** area. En-bloc dialling is enabled by entering a value and performed after the timeout of the specified value. The **#** key must be pressed after entering the call number if en-bloc dialling is to be performed before the specified timeout has expired. This setting is not required for the innovaphone PBX.

5.4.7 Codec index card

- Select the **Codec** index card.
- Select the codec to be preferably used for transmitting the voice data packets in the **Standard Codec** area. The **G.711 ALaw** codec is a wise choice for the IP 10 USB telephone in the LAN. Please observe that the **G.723** codec consumes more CPU power.
- Tick the **Exclusive** checkbox if the selected codec is to be used exclusively. In this way the selected codec is forced to be used when negotiating the codec during the transmission setup.
- Tick the **Silence Compression** checkbox if you want to activate noise suppression. With this setting, no data packets are transmitted during the speech pauses, but a background noise is created at the opposite terminal.

- Select the size of the data packets to be transmitted in the **Packet size (ms)** area. 60 ms is a default value which should not be changed as far as possible.

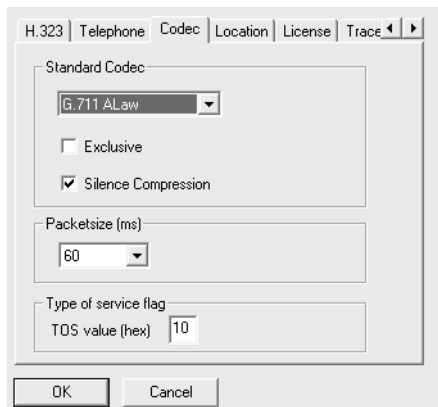


Fig. 85 innovaphone SoftwarePhone Setup Codec index card

- You can enter a hexadecimal TOS value in the **TOS value (hex)** field in the **Type of service flag** area in order to classify the IP packets in routers. 10 is a recommended value which should not be changed if possible.

5.4.8 Location index card

- Select the **Location** index card.
- The entries specified in Table 10 must be entered in the **Dialing Location** area.

Field name	Description
International Prefix	Discriminating code for dialling a country code (00 in Germany)
Country Code	Your country code, e.g. 49 for Germany
National Prefix	Discriminating code for dialling an area code (an 0 in Germany)
Area Code	Your area code without the leading 0, e.g. 30 for Berlin
PBX Prefix	Exchange code for accessing an external exchange line via the innovaphone PBX (usually an 0 for connections to PBXs in Germany)

Table 10 Location index card fields

The screenshot shows a software window titled 'SoftwarePhone Setup' with a tabbed interface. The 'Location' tab is active. Inside, there is a section labeled 'Dialing Location' containing five text input fields with the following values: International Prefix (00), Country Code (49), National Prefix (0), Area Code (30), and PBX Prefix (0). Below the input fields are 'OK' and 'Cancel' buttons.

Fig. 86 innovaphone SoftwarePhone Setup Location index card

5.4.9 License index card

- Select the **License** index card.

The innovaphone SoftwarePhone is licensed on this index card. The possible licence models have already been described in Section 5.3, "Configuration with Setup Wizard" beginning on page 103.

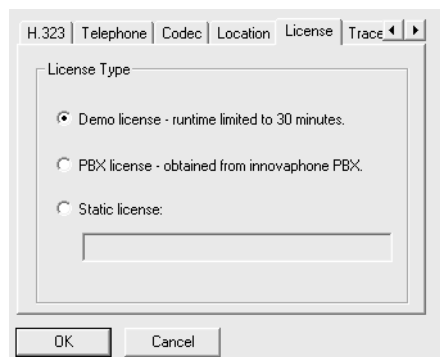


Fig. 87 innovaphone SoftwarePhone Setup License index card

5.4.10 Trace index card

- Select the **Trace** index card.

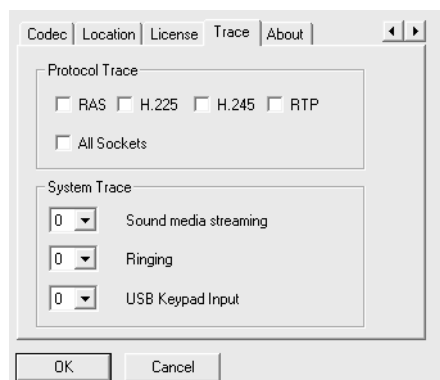


Fig. 88 innovaphone SoftwarePhone Setup Trace index card

This index card can be used to make settings in order to record a trace protocol

if problems occur. It is stored in the directory displayed on the Application index card. Refer to Section 5.4.1, "Application index card" beginning on page 107.

The technical support of innovaphone® AG must be consulted first before making settings on this index card.








5.4.11 About index card

- Select the **About** index card.

The version number of the SoftwarePhone software in use is displayed on this index card.

5.5 Structure of the user interface

The structure of the user interface of the innovaphone SoftwarePhone is displayed in Fig. 89. The user interface is divided into the following areas:

Pos.	Area	Description
1	Application menu (Menüleiste)	Menu bar of the Application menu It can also be called up by pressing the right mouse button in the Phone area .
2	Phone control bar (Telefon Kontrollleiste)	Buttons used to operate the innovaphone SoftwarePhone
		Onhook/Offhook (Auflegen/Abnehmen)
		Hold (Rückruf/Makeln)
		Disconnect (Trennen)
		Redial (Wahlwiederholung)
		Adjust volume (Lautstärke einstellen)
		Mute (Stummschaltung)
		Dialpad (Ziffernblock)

Pos.	Area	Description
3	Applications bar (Anwendungsleiste)	Buttons used to operate innovaphone SoftwarePhone applications Call lists (Ruflisten) Phone book (Telefonbuch)
4	Phone Area (Telefonbereich)	innovaphone SoftwarePhone display. All telephone and call information is made available in this area, in the same way as with conventional telephones. Refer also to Section 5.5.1, "The Phone area" beginning on page 118.
5	Call list (Rufliste)	Call list for all incoming and outgoing calls. Refer also to Section 5.5.3, "The Call list" beginning on page 123.
6	Phonebook (Telefonbuch)	Telephone book for saving call numbers frequently dialed. Refer also to Section 5.5.4, "The phone book" beginning on page 123.

Table 11 User interface areas of the innovaphone SoftwarePhone

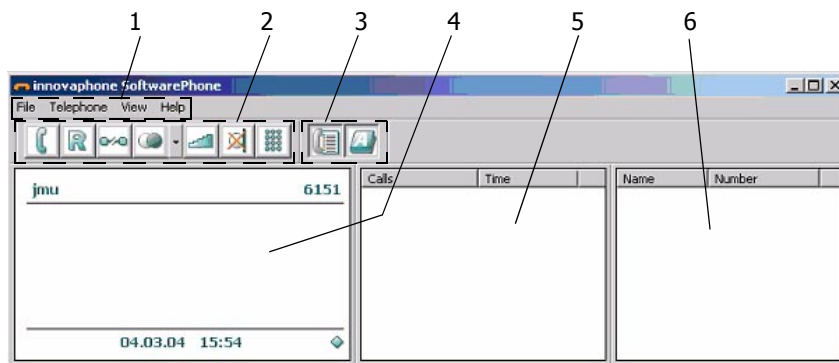


Fig. 89 User interface of the innovaphone SoftwarePhone

The individual areas of the user interface can be moved around by dragging and

dropping them, even outside the main window of the user interface. It is also possible to adjust the size of each area by pulling it open with the mouse. In this way the user interface of the innovaphone SoftwarePhone can be adapted to individual requirements.

5.5.1 The Phone area

The phone area displays the innovaphone SoftwarePhone in the same way as you have become accustomed to, for example with the IP 200 comfort telephone.









The registered name is displayed in the top left area, the registered call number in the top right area. The headset/mute status is displayed on the left side of the bottom status line, the date and time are displayed in the centre and the status of the gatekeeper registration at the bottom right. The displayed symbols have the same meaning as with the innovaphone IP 200 (refer to Section 2.4, "Display" beginning on page 15).





You can open up menus by clicking the mouse over certain points of the Phone area.







- A left mouse click over the top area displays information on the registration status and is also used to switch between registrations if more than one registration has been configured.
- A left mouse click on the **unanswered calls (unbeantworteter Anruf)** message is performed as read confirmation with the effect that the displayed message disappears.
- A left mouse click on call diversion information opens a dialogue window in which call diversions can be edited.
- A call on hold is activated by clicking on it with the left mouse button.
- A dial keypad is opened by clicking the middle mouse button and can either be discarded by clicking the middle mouse button again or by a right mouse click outside the dial keypad window.
- A right mouse click opens the menu bar.




5.5.2 Using the Phone area


The SoftwarePhone can be operated with the IP 10 USB telephone, the keyboard or the mouse. The following table shows the actions you can perform with the SoftwarePhone, depending on how it is operated.

Action	IP 10	Keyboard	Mouse
Answering a call	Pick up the handset.	Press the Space key.	Press the Handset key  .
Terminating a call	Hang up or press the Clearing key.	Press the Space key or ESC key.	Press the Handset key  or Clearing key  .
Rejecting a call	-----	Press the ESC key.	Press the Clearing key  .
Direct manual dialling	<ol style="list-style-type: none"> 1. Pick up the handset. 2. Dial the call number. 	<ol style="list-style-type: none"> 1. Press the Space key. 2. Dial the call number. 	<ol style="list-style-type: none"> 1. Press the Handset key . 2. Press the Numeric keypad key  or click on the middle mouse button. 3. Click on numbers.
Prepared dialling	-----	<ol style="list-style-type: none"> 1. Enter the call number, H.323 name or IP address. 2. Press the Space or Enter key. 	<ol style="list-style-type: none"> 1. Press the Numeric keypad key  or click the middle mouse button. 2. Click on numbers. 3. Press the Handset key .
Dialling numbers from the call list	-----	<ol style="list-style-type: none"> 1. Select an entry from the call list. 2. Press the Enter key. 	Double-click on an entry in the call list or right click on an entry in the call list and select Call (Anrufen) .

Action	IP 10	Keyboard	Mouse
Dialling numbers from the telephone book	-----	<ol style="list-style-type: none"> 1. Select an entry from the telephone book. 2. Press the Enter key. 	Double-click on an entry in the telephone book or right click on an entry in the telephone book and select Call (Anrufen) .
Redialling	Press the Redial key.	-----	Click on the Redial key  to dial the number dialled last or click on the arrow  next to the Redial key and select an entry from the list of the 10 numbers dialled last.
Recall	Press the Recall key and dial the call number.	Press the R key or "Downward arrow" key and dial the call number.	Press the Recall key  and dial the call number.
Switching between two calls	Press the Recall key twice or the Recall key and the 2 key.	Press the R key twice or the R key and the 2 key or press the "Upward arrow/ Downward arrow" key.	Press the Recall key  or click on the displayed call number with the left mouse button.

Action	IP 10	Keyboard	Mouse
Connecting a call	<ol style="list-style-type: none"> 1. Press the Recall key. 2. Dial the number. 3. Replace the handset. 	<ol style="list-style-type: none"> 1. Press the R key or "Downward arrow" key. 2. Dial the call number. 3. Press the Space key. 	<ol style="list-style-type: none"> 1. Press the Recall key . 2. Press the Numeric keypad key  or click on the middle mouse button. 3. Click on numbers. 4. Press the Handset key .
Answering a waiting call without terminating the current call	Press the Recall key twice or the Recall key and the 2 key.	Press the R key twice or the R key and the 2 key.	Press the Recall key  .
Answering a waiting call and terminating the current call	Press the Clearing key.	Press the ESC key.	Press the Clearing key  .
Rejecting a waiting call	Press the Recall key and the 0 key.	Press the R key and the 0 key.	----
Muting	----	Press the M key.	Press the Mute key  .

Action	IP 10	Keyboard	Mouse
Adjusting the volume during a call	-----	<ol style="list-style-type: none"> 1. Activate the volume control slider by pressing the "Left arrow/Right arrow" key. 2. Adjust the volume by pressing the "Left arrow/Right arrow" key. 3. Set the microphone sensitivity by pressing the Shift key and "Left arrow/Right arrow" key. 4. Press the ESC key to exit. 	<ol style="list-style-type: none"> 1. Activate the volume control slider by pressing the Volume key . 2. Adjust the volume with the left slider. 3. Adjust the microphone sensitivity with the right slider. 4. Press the Loudspeaker key  again to exit.
Adjusting the volume of the bell (only available if a sound device is activated for ringing)	-----	<ol style="list-style-type: none"> 1. Activate the volume control slider by pressing the "Left arrow/Right arrow" key. 2. Adjust the volume by pressing the "Left arrow/Right arrow" key. 	<ol style="list-style-type: none"> 1. Activate the volume control slider by pressing the Volume key . 2. Adjust the volume with the left slider.

Action	IP 10	Keyboard	Mouse
Continuation ...		3. Press the ESC key to exit.	4. Press the Loudspeaker key  again to exit.

5.5.3 The Call list

The Call list contains all incoming and outgoing calls for all SoftwarePhone identities. A left mouse click on the **Calls (Anrufe)** column calls up a display filter with which only incoming and only outgoing calls can be displayed. A left mouse click on the **Time (Uhrzeit)** column reverses the order of the entries. The third column, **Registration (Registrierung)** is hidden and can be activated in order to see, for example, for which identity a call has been received if joint users have been set up.

A dialogue window with the following functions is opened by a right mouse click:

- Setup of a call to the selected list item
- Adding numbers to the telephone book
- Deletion of individual, selected or all entries from the **Calls list (Rufliste)**.

A double click on an entry initiates a call to this number.

5.5.4 The phone book

The phone book allows you to save favoured and frequently used numbers.

To add an entry to the phone book, click into the phone book field with the right mouse button and enter the name and number.

Tip

A H.323 name or an IP address can also be used as the number.



A double click on an entry initiates a call to this number.

A dialogue window with the following functions is opened by a right mouse click:

- Setup of a call to the selected phone book entry
- Editing of entries
- Deletion of entries

5.5.5 Registrations

The innovaphone SoftwarePhone allows registrations to be made for up to six subscribers. Registrations are set up in **Setup** in the **Identity** area of the **H.323** index card. Refer to Section 5.4.5, "H.323 index card" beginning on page 110.

It is possible to change the current registration identity and hence the identity of the subscriber by calling up the **Telephone > Registrations (Telefon > Registrierungen)** menu and selecting the respective registration entry.

5.5.6 Call diversions

You can set up call diversions for the active registration.

The Call Diversion dialogue field is opened by selecting the **Telephone > Call diversions (Telefon > Anrufumleitungen)** menu.

You can enter the destination of the call diversion in the **always (immer)**, **busy (besetzt)** and **no reply (keine Antwort)** fields.

5.5.7 Hotkeys

- The application is minimised by pressing the ESC key and can be restored again to its full size by pressing the Handset symbol in the system tray.
- The application is restored by pressing ALT + ESC.
- The application is restored if the handset of the IP 10 USB telephone is picked up.
- The application is restored in the event of an incoming call.

5.5.8 SoftwarePhone as Windows Service

You can operate the innovaphone SoftwarePhone as Windows Service. Please get in touch with the technical support of innovaphone® AG for information on the installation of SoftwarePhone as Windows Service.

5.6 FAQ

- **Problem:**
Some combinations of USB host adapters and USB telephones or USB headsets can cause problems during data transmission. In these cases the data stream stops after a few seconds.
Remedy:
Use an on-board sound card, if possible, and enter a value of 90ms, for example, in the **Frame Size** field on the **Audio** index card (refer to Section 5.4.2, "Audio index card" beginning on page 108). Furthermore make sure the value **realtime** has been selected in the **Priority** field on the **Application** index card (refer to Section 5.4.1, "Application index card" beginning on page 107).
- **Problem:**
When using the Windows XP Service Pack 0 with the "Luna" graphics interface, the system hangs up after selecting **realtime** in the **Priority** field on the **Application** index card and leaving the index card with "X" in the title bar.
Remedy:
This problem has been rectified with the Windows XP Service Pack 1.
- **Problem:**
The volume is not loud enough even though the volume control slider is set to the maximum value.
Remedy:
This can be rectified by setting the Windows master volume control slider (**Control Panel > Sounds and Multimedia > Volume**).
- **Problem:**
The volume of the IP 10 is not loud enough with Windows XP even though the volume control slider has been set to the maximum value.
Remedy:
This is a well-known Windows XP error of the master volume control. The master volume is automatically reset by Windows to 50% as soon as the "Sounds and Multimedia" (Sounds und Audiogeräte) window is closed. This can be rectified as follows: Open **Control Panel > Sounds and Multimedia** and select the **Volume** button of the desired device. A dialogue window with control sliders is opened in order to adjust the volume. Now close the **Sounds and Multimedia** index card first and then set the volume of the desired device in the dialogue window.

- **Problem:**
The entry generated by the installation program in **Start > Programs** does not work with Windows 98/SE.
Remedy:
This is a well-known problem with Windows 98/SE. Please create the short cut manually or start the SoftwarePhone directly via Windows Explorer.
- **Problem:**
The SoftwarePhone cannot register itself at a gatekeeper behind an IPSec tunnel. This is a well-known problem with Cisco VPN Client Version 3.
Remedy:
Update to Cisco VPN Client Version 4 or higher.
- **Problem:**
The packet sniffer (e. g. Ethereal) recognises RTP packets with a TOS value of 0 although the TOS value has been set.
Remedy:
This is a Windows problem if TOS is disabled by default (Windows 2000). Please look for item 329794 in the Microsoft Knowledge Base and modify the registry entries accordingly.
- **Problem:**
It is not possible to signal calls over the system loudspeakers with Windows 98/SE/ME.
Remedy:
This is a well-known Windows error.
- **Problem:**
When using certain USB hubs, Windows crashes with a blue screen or restarts independently.
Remedy:
If you use USB hubs (which we do not recommend), then only use those USB hubs which have their own power supply.

6 PBX Operator console

The PBX Operator console is a software component of the innovaphone PBX. The PBX Operator is a Windows .NET application and runs on the Windows 2000 and Windows XP operating systems.

The prerequisites for operating the software properly are the **Microsoft.NET runtime Library** and access to an innovaphone PBX with the current firmware version (version 5.0 or higher).

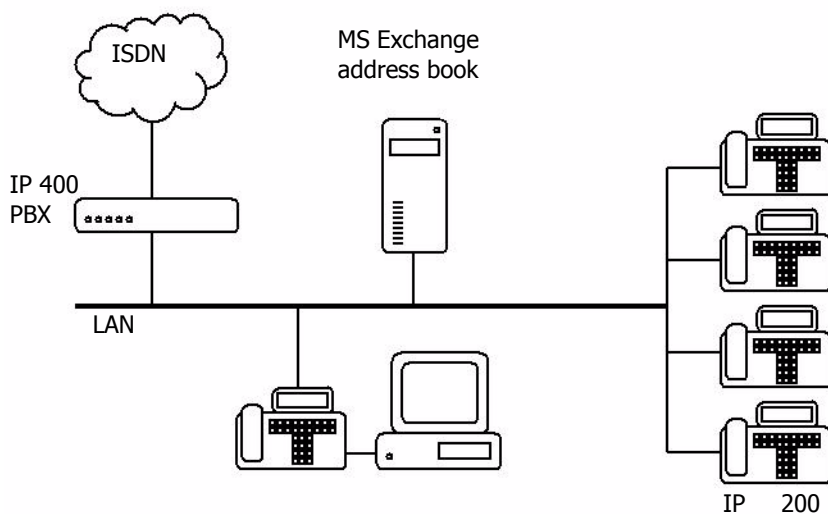


Fig. 90 Integration of the innovaphone PBX Operator

The PBX Operator is a **computer-assisted operator console** for the innovaphone PBX. The PBX Operator can access the calls on hold at the innovaphone PBX and transfer calls within a group. In addition, it can monitor the current status of each subscriber by means of the integrated **Busy Field/ Besetztfeld**.

6.1 Installation

Start the Install program of the software package after downloading and unpacking the software. A set-up wizard appears to provide you with helpful information during the installation. Proceed as follows:

- Click on **Next**.
- Actuate the **I Agree** button to accept the licence contract.
- Actuate the **I Do Not Agree** button if you do not want to accept the licence contract. In this case the installation is aborted.
- Click on **Next**.
- Determine the installation path.
- Determine whether the installation is able to be accessed by every user (**Everyone**) or only by the current user of this computer (**Just me**).



Caution

This means that the installation can only be used for the user currently logged onto this Windows PC. The application is no longer available as soon as someone logs on to this computer with a different name.

- Click on **Next**.
- All the parameters required are now specified. Confirm the copying procedure with **Next** and then complete the installation with **Close**.

The innovaphone PBX Operator software is available in German and English. The language which is displayed is based on the language version of your Windows operating system.

6.2 User interface structure

The **Calls (Rufe)** index card of the PBX Operator consists of four areas:

Area	Description
Waiting (Wartend)	Display of the current calls on hold in the innovaphone PBX
New (Neu)	Functions used to generate outgoing calls
Active (Aktiv)	List of the active lines with a function bar for editing the active calls
Busy Field (Besetztfeld)	Display of the current status of members of your group

Table 12 Calls (Rufe) index card areas

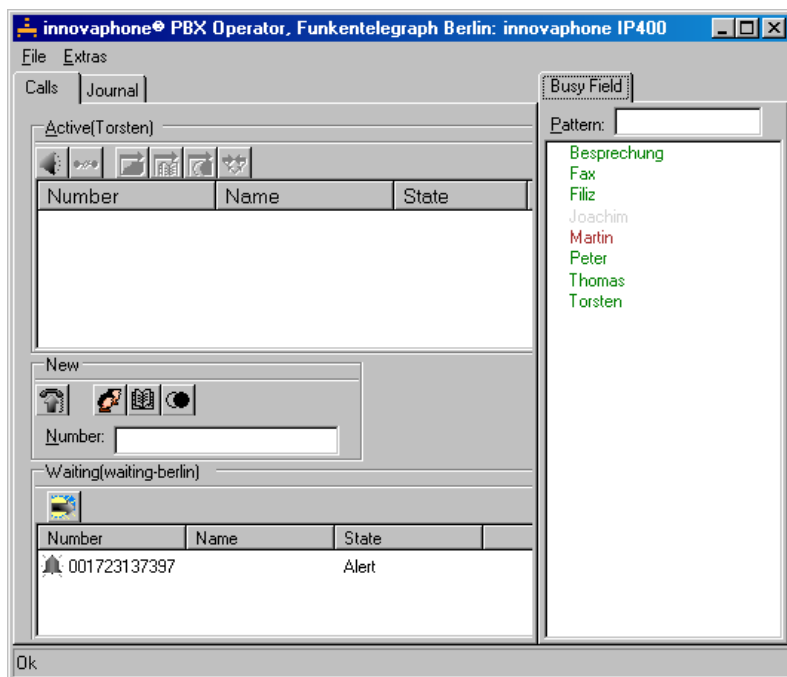


Fig. 91 Main window of the innovaphone PBX Operator

6.2.1 Waiting (Wartend) - the queue

All calls which are currently on hold are displayed in this list. The calls are ordered in such a manner that the last call is added to the bottom of the list and processed calls are taken from the top of the list, with the effect that all the other entries are moved up one position.

The calls are not prioritised in the queue. The calls can only be answered one after the other.



Tip

New calls are only indicated in the **Waiting (Wartend)** area if the operator is busy, meaning there are calls in the **Active (Aktiv)** area. The call waiting in the **Waiting (Wartend)** area is moved to the **Active (Aktiv)** area as soon as the activities in the **Active (Aktiv)** area are over.

There is a button used to switch to day/night mode in the **Waiting (Wartend)** area. Its appearance varies, depending on the active setting (see Table 13).




Button	Description of the function
	Day/Night operation of the PBX Operator has not been configured if this button is displayed.
	The PBX Operator is in day operation mode if this button is displayed. It is switched to night operation mode by pressing the button.
	The PBX Operator is in night operation mode if this button is displayed. It is switched to day operation mode by pressing this button.

Table 13 Day/Night switchover

The **Configuration of Basic Parameters (Konfiguration der Basisparameter)** index card is opened in the **File > Config (Datei > Konfiguration)** menu. A diversion number, for example to another extension, a mobile phone or an answering machine can be set up here in the **Nightswitch Diversion (Umleitung für Nachtschaltung)** field, if the PBX Operator is no longer engaged and the night connection has been activated.

6.2.2 New (Neu) - the dialling aid

Various options are provided here to help you set up calls. All of the specified buttons can be operated using the keypad. The function and the possible key are displayed if you move the mouse pointer over the button.





Button	Short cut key	Description of the function
	Alt + N	This buttons allows you to dial the number specified in the edit field. Alternatively, the Enter key can be pressed after entering the call number in the edit field.
	F 9	This button enables you to select a local subscriber within the network of the innovaphone PBX with the corresponding extension number from a list. The call is set up immediately after double-clicking on or selecting an entry and confirming it with OK.
	F 11	This button enables you to select a subscriber from the address book.
	F 12	This button allows you to dial a subscriber from the Redialling list. It is also possible to enter call numbers manually however.

Table 14 Buttons in the **New** area

6.2.3 Active (Aktiv) - the active lines

This list shows all active incoming and outgoing calls of the operator telephone. The buttons specified in the following can be used to enable their corresponding functions:







Button	Short cut key	Description of the function
	Space key	This button is used to answer incoming calls. The Space key can be pressed alternatively.
	Esc	This button is used to delete a call from the list.
	F 6	This button is used to transfer a call to a subscriber of the PBX without prior consultation.
	F 7	This button is used to divert a call to a subscriber in the address book without any prior consultation. The standard MAPI dialogue appears and you can select the local Windows address book or external address books. The entry to be selected should comply with international notation, consisting therefore of a plus sign, the international code, the area code and the call number including the extension number, if available (e.g. +49 30 123456-78).
	F 8	This button is used to divert a call to a subscriber in the Redialling list without prior consultation. It is also possible to enter call numbers manually however.
	Alt + T	This button is used to transfer a call to a subscriber after prior consultation. Two incoming calls, two outgoing calls or one incoming and one outgoing call can be connected.
	Alt + A	The input focus is put on the Active list.

Table 15 Buttons in the **Active** area

6.2.4 The Busy Field (Besetztfeld)

The Busy Field (Besetztfeld) is a list of all active, visible innovaphone PBX subscribers. The subscribers displayed in the Busy Field need to be active members of a group within the innovaphone PBX.

Depending on the configuration, the activity status of a subscriber is indicated by the colour or font style of its entry.

Colour	Font style	Activity status
Green	Bold	Subscriber is registered but not currently phoning.
Red	Italics	Subscriber is registered and phoning.
Light grey	Crossed out	Subscriber is not actively registered.

Table 16 Indication of the subscribers' activity statuses in the Busy Field

The appearance of the colours can be adapted to one's own requirements in a colour setting dialogue in the **Extras > Options > Busy Field > Color (Extras > Optionen > Besetztfeld > Farbe)** menu.

The key combination **Alt + B** switches the input focus to the busy field.

A call can be set up to a subscriber in the Busy Field by double-clicking on the corresponding entry. It is also possible to connect a call from the **Active (Aktiv)** field to a subscriber from the Busy Field list by means of drag & drop. This procedure is equivalent to transferring a call without previous consultation.

The **Pattern (Filter)** field is at the top edge of the **Busy Field (Besetztfeld)**. You can, for example, enter the first letters of a name here in order to receive a restricted list. This procedure is particularly useful if there is a high number of entries in the **Busy Field (Besetztfeld)**. The characters * (for any number of characters) and ? (for a single character) are used as placeholders in this edit field.

The key combination **Alt + P** switches the input focus to the **Pattern (Filter)** field.

The Call Diversion dialogue field is opened by pressing the right mouse button over the entry of a subscriber in the Busy Field. Call diversions can be set up here in a very convenient manner for the selected subscriber. Refer to Section 6.6.3, "Setting up a call diversion for a subscriber" beginning on page 139 to set up a call diversion for a subscriber in the Busy Field (Besetztfeld).

6.3 The journal

The journal of the operator console is opened by selecting the **Journal** index card of the PBX Operator (see Fig. 92). **Missed Calls (Rufe in Abwesenheit)**, **Connected Calls, Incoming (Verbundene Rufe, eingehend)** and **Connected Calls, Outgoing (Verbundene Rufe, ausgehend)** are displayed here with their date, time, number and name.

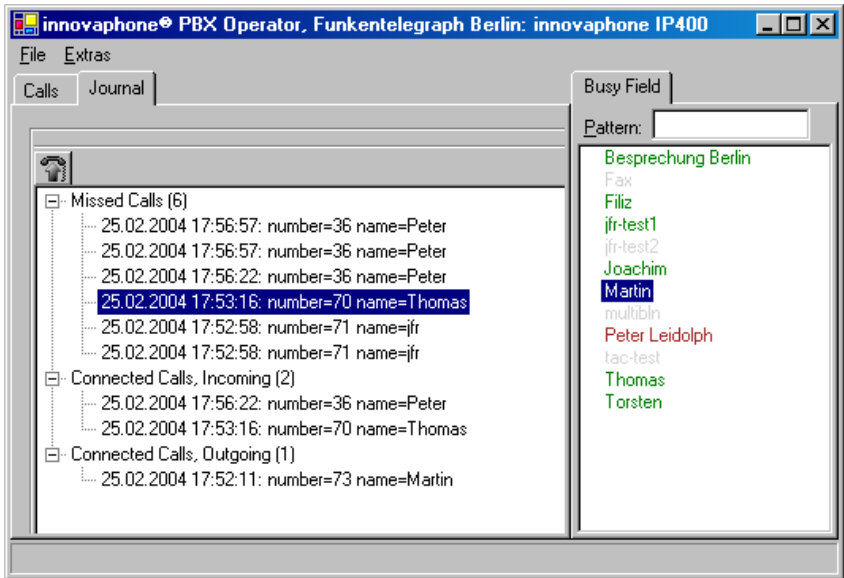



Fig. 92 The journal of the innovaphone PBX Operator (operator console)

A previously selected entry can be selected from the journal by pressing the button  (see Fig. 92).

6.4 Configuration

6.4.1 Basis parameters

The configuration must be adapted to your system in order for the operator workplace to be able to work properly.

- To do this, start the configuration dialogue via **File (Datei)** and **Config (Konfiguration)**.
- Enter the IP address of your innovaphone PBX in the **IP Address (IP Adresse)** field of the **Location (Ort)** group.
- Enter your user name and the appropriate password for the operator workplace in the **Authorization (Berechtigung)** group.
- Enter the **Account (Benutzername)** and **Password (Passwort)** for which the operator workplace is to be configured.

Tip

Make sure you enter the name and not the nickname which is, for example, displayed on your telephone.



- Enter the name of the queue, provided you have configured one for the innovaphone PBX. Refer to Section 6.5.1, "Configuration of the PBX queue" beginning on page 137.
- Enter the call number of the **Nightswitch Diversion (Umleitung für Nachtschaltung)** if you want to configure a night connection for the innovaphone PBX. Refer also to Section 6.2.1, "Waiting (Wartend) - the queue" beginning on page 130.

6.5 Further options

To set further options, select **Extras** and **Options (Optionen)**.

By ticking the **Dialing Location (Standort)** item, you can enter values for the

- **Country Code (Landeskennung)** (e.g. "49"),
- **Area Code** without "0" (**Ortskennung**) (e.g. "30" for Berlin),
- **External Line Prefix (Amtsholung)** (e.g. "0"),
- **National Trunk Prefix (Inlandspräfix)** (e.g. "0") and
- **International Trunk Prefix (Auslandspräfix)** (e.g. "00").

You can access the **Appearance (Darstellung)** or **Team Function (Team Funktion)** index cards by ticking **Busy Field (Besetztfeld)**.

The appearance of the activity status of the subscribers can be configured in the Busy Field/Besetztfeld on the **Appearance (Darstellung)** index card (see Table 17).

Option	Display form
Show User Status By Color (Benutzerstatus per Farbe)	The entry of a user is displayed in colour: GreenSubscriber is registered but not currently phoning. RedSubscriber is registered and phoning. Light grey ..Subscriber is not actively registered.
Show User Status By Background Color (Benutzerstatus per Hintergrundfarbe)	The entry of a users is displayed on a coloured background: GreenSubscriber is registered but not currently phoning. RedSubscriber is registered and phoning. Light grey ..Subscriber is not actively registered.
Show User Status By Font Style (Benutzerstatus per Zeichensatz)	The entry of a user is displayed in a particular font style: BoldSubscriber is registered but not currently phoning. ItalicsSubscriber is registered and phoning. Crossed outSubscriber is not actively registered.

Table 17 User status display configuration

In the same way, the names can be displayed, ordered according to **Display By Name (Namen Anzeigen)**, **Display By Number (Nummer Anzeigen)** or **Display By H323 Name (H323-Namen anzeigen)**.

You can allow calls to be picked up by setting the **allow Pickup (Heranholen erlauben)** option on the **Team Function (Team Funktion)** index card. If a call is signalled to a subscriber in the group, but the subscriber does not answer the call, the call of this subscriber is indicated by a pick-up symbol. The call can be picked up and forwarded to the extension of the operator console by double-clicking on this subscriber.

6.5.1 Configuration of the PBX queue


Refer to the "Administrator Manual - innovaphone PBX" for the configuration of the PBX queue.


6.6 Optimum utilisation of the PBX Operator

In the following sections there are some prime examples of how to use your PBX Operator console in a best possible way.

6.6.1 Transferring calls after prior consultation


Proceed as follows to transfer an incoming call to a subscriber of the innovaphone PBX after consulting him/her:

1.		The number and in some cases the name of an incoming call appear in the Active (Aktiv) area. The status of the caller is Alert .
2.	Click on the button  or the Space key of the keypad.	The call is answered and the status of the caller switches to Connect . You can now speak with the caller.

3.	Double-click on the entry of the subscriber to which the caller is to be connected in the Busy Field/Besetztfeld.	The dialled connection now appears in the Active (Aktiv) area as further entry with the status connect and you are connected to the dialled subscriber. The caller hears music on hold.
4.	Click on the  button.	The caller is connected to the desired subscriber and the subscribers disappear from the Active (Aktiv) area.

6.6.2 Transferring calls without prior consultation

Proceed as follows to transfer an incoming call to a subscriber of the innovaphone PBX without consulting him/her first:

1.		The number and in some cases the name of an incoming call appear in the Active (Aktiv) area. The status of the caller is Alert .
2.	Actuate the  button or the Space key of the keypad.	The call is answered and the status of the caller switches to Connect . You can now speak with the caller.
3.	Tick the entry of the call in the Active area and drag and drop it onto the desired entry in the Busy Field/Besetztfeld.	The caller is now connected to the desired extension and the subscribers disappear from the Active (Aktiv) area.

6.6.3 Setting up a call diversion for a subscriber

Proceed as follows to set up a call diversion for a subscriber in the Busy Field/ Besetztfeld:

1.	Press the right mouse button over the entry of the subscriber to be set up in the Busy Field/ Besetztfeld.	The dialogue field of the subscriber for the call diversion appears (see Fig. 93).
2.	Select the desired call diversion type in the Type: (Typ:) field and enter the corresponding call diversion number in the Number: (Nummer:) field.	You can add the call diversion types specified in Table 16.
3.	Press the << Add (<< Hinzufügen) button.	The newly added call diversion is displayed in the left window.
4.	Press the Apply (Anwenden) button to save the set-up call diversion.	The set-up call diversion is saved and the dialogue field closed.

To delete a call diversion, select the entry to be deleted from the left window and press the **Delete (Entfernen)** button.

Call diversion type	Abbreviation	Description
unconditional (immer)	cfu	Permanent diversion Calls to the subscriber are always diverted to another subscriber.
busy (besetzt)	cfb	Diversion if busy Calls to the subscriber are diverted to another subscriber if there is already an active call at the subscriber.

Call diversion type	Abbreviation	Description
no response (keine Antwort)	cfnr	Diversion if there is no response Calls to the subscriber are diverted to another subscriber if the subscriber does not respond within a certain period of time.

Table 18 Call diversion types

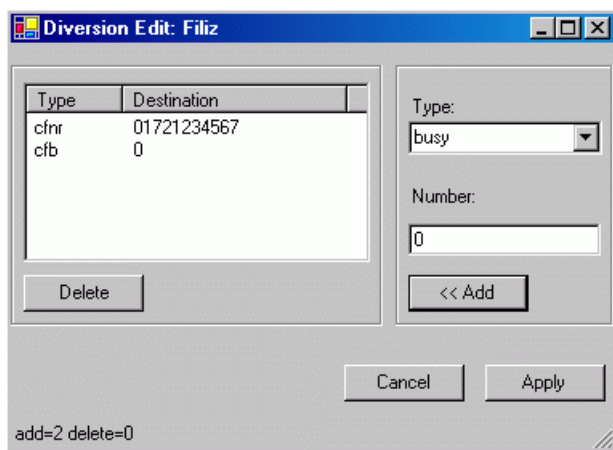


Fig. 93 Editing call diversions

Appendix A: Safety instructions

The manufacturer assumes no responsibility for any personal injury, damage to property or subsequent damage that can be attributed to improper use of the device.

innovaphone® AG declares that the device meets all basic requirements of the European Guideline 1999/5/EC.

The "innovaphone Administrator Manual - VoIP Gateways" and the "Administrator Manual - innovaphone PBX" should also be observed for the configuration of the VoIP terminals. All instructions specified there should be followed carefully and the devices only used in accordance with these instructions.

Safety instructions for the IP 200/202

Caution

Please observe the following instructions for your own safety:



Power supply

The mains adapter of the device is designed for operation with a 100-240 V, 50-Hz AC mains network. Never try to connect the device to other mains systems.

The device cannot be operated during a mains failure. The settings of the device however are retained.

The power socket must be nearby the device and easy to access. The power supply of the device can be interrupted by pulling the mains adapters out of the power socket or, if the power is supplied via network cable (power over LAN), by pulling the network cable.

Installation and connection

Lay the connection lines in such a way that no-one can stumble over them. None of the connected cables may be bent excessively, pulled or subjected to mechanical strain.

The device is intended for use in dry rooms only.

The device may not be installed and operated within the following surroundings:

- In damp, dusty or potentially explosive rooms
- At temperatures over 40°C or under 0°C
- Where it is subject to impact stress or vibrations
- At places subject to direct sunlight

Some types of furniture varnish or care products can damage the plastic feet of the IP 200 comfort telephone and leave stains behind. In these cases, make sure you put the device on a stable, non-slip surface.

Cleaning

Use a soft, slightly damp cloth to clean the surface of the device's housing. Do not use any chemicals or abrasives. The device does not require any maintenance.

Malfunctions

There is no need to open the device if it is operated and serviced as intended.

Do not open or reconnect defective devices. In these cases, bring the device to your dealer or service centre. Keep the original packaging in case you need to send back the device, since it protects your device ideally. Back up all entries (e.g. on a PC) to avoid losing data.

Disposal

The device should be disposed of as electronic scrap in accordance with local regulations.

Troubleshooting

Problem	Possible cause	Recommendation
The IP telephone is not working.	The telephone does not have an IP address.	Switch off the DHCP client mode of the IP telephone and enter the IP address manually if there is no DHCP server operating in the IP network.
No connection to the gatekeeper.	The "Gatekeeper Name" has not been entered in the network settings.	Enter the gatekeeper name.
No connection to the gatekeeper.	The registration data (telephone number and/or H.323 name) has not been entered correctly.	Enter the data.
Device indicates "Memory full".	The maximum amount of entries is in the text memory.	Delete entries no longer required from the telephone directory.
Telephone does not always ring.	Call filter activated; silent telephone is set.	Refer to the corresponding section.

Environmental sustainability

There is no contact with hazardous materials if the telephone is used as intended. The plastics used for this device are of partially recycled granulate. We do not use any plastic material for our packaging. We only use partially recycled cardboard and paper.

Warranty

Your IP telephone is a sophisticated, modern device which has been produced using state-of-the-art production equipment in order to meet high quality requirements. Only high quality components which ensure a maximum of reliability are used for their production.

A warranty seal has been applied to the bottom of the IP telephone (on a screw of the housing). Please make sure it is not damaged, since otherwise no warranty claims can be made.

Declaration of conformity

innovaphone AG declares that the device meets all basic requirements of the European Guideline 1999/5/EC.

Safety instructions for the IP 21

Caution

Please observe the following instructions for your own safety:



Power supply

The mains adapter of the device is designed for operation with a 230-V, 50-Hz AC mains network. Never try to connect the mains adapter to other mains systems.

The device cannot be operated during a mains failure. The settings of the device however are retained.

The power socket must be nearby the device and easy to access. The only way of interrupting the power supply of the device is by pulling the mains lead out of the mains socket.

Installation and connection

The device may be installed and fitted (if required) by qualified personnel only.

Make sure the device has adequate ventilation in particular in closed racks.

Lay the connection lines in such a way that no-one can stumble over them. None of the connected cables may be bent excessively, pulled or subjected to mechanical strain.

The device is intended for use in dry rooms only.

- Operating temperature: 0 °C to 40 °C, 10 % to 90 % relative humidity, non-condensing
- Storage temperature: -10 °C to 70 °C

The device may not be installed and operated within the following surroundings:

- In damp, dusty or potentially explosive rooms
- At temperatures over 40 °C or under 0 °C
- Where it is subject to impact stress or vibrations

Cleaning

Use a soft, slightly damp cloth to clean the surface of the device's housing. Do not use any chemicals or abrasives. The device does not require any maintenance.

Malfunctions

There is no need to open the device if it is used as intended and serviced as specified. Should you nevertheless decide to open the device, make sure that all connection cables are removed beforehand. Before opening the device, interrupt the power supply by pulling the plug.

Do not open or reconnect defective devices. In these cases, bring the device to your dealer or service centre. Keep the original packaging in case you need to send back the device, since it protects your device ideally. Back up all entries (e.g. on a PC) to avoid losing data.

Disposal

The device should be disposed of as electronic scrap in accordance with local regulations.

Safety instructions for the IP 10 USB telephone



Caution

Please observe the following instructions for your own safety:

Power supply

The power of the IP 10 USB telephone is supplied by means of the USB cable.

The device cannot be operated during a mains failure. The settings of the device however are retained.

The USB socket must be nearby the device and easy to access. The only way of interrupting the power supply of the device is by pulling the USB connection cable out of the USB socket.

Installation and connection

The device may be installed and fitted (if required) by qualified personnel only.

Make sure the device has adequate ventilation in particular in closed racks.

Lay the USB connection cable in such a way that no-one can stumble over it. The USB connection cable may not be bent excessively, pulled or subjected to mechanical strain.

The device is intended for use in dry rooms only.

- Operating temperature: 0 °C to 40 °C, 10 % to 90 % relative humidity, non-condensing
- Storage temperature: -10 °C to 70 °C
- The device may not be installed and operated within the following surroundings:
 - In damp, dusty or potentially explosive rooms
 - At temperatures over 40 °C or under 0 °C
 - Where it is subject to impact stress or vibrations

Cleaning

Use a soft, slightly damp cloth to clean the surface of the device's housing. Do not use any chemicals or abrasives. The device does not require any maintenance.

Malfunctions

There is no need to open the device if it is used as intended and serviced as specified. Should you nevertheless decide to open the device, make sure that the USB connection cable is removed beforehand.

Do not open or reconnect defective devices. In these cases, bring the device to your dealer or service centre. Keep the original packaging in case you need to send back the device, since it protects your device ideally. Back up all entries (e.g. on a PC) to avoid losing data.

Disposal

The device should be disposed of as electronic scrap in accordance with local regulations.

Appendix B: Technical data

IP 200/202

Power supply:	Mains adapter: Primary: 100-240 V AC 50-60 Hz, 215 mA Secondary: 12 V DC, 10 W Optional supply via Ethernet cable in accordance with 802.3af
Ethernet:	2 x 10/100-BASE-TX auto-negotiated 1 uplink port for Ethernet switch 1 port for a client (PC)
Hardware:	
CPU:	RISC CPU for protocol processing, digital signal processor (DSP) for the compression of up to two simultaneous calls
Memory:	8 MB DRAM, 2 MB Flash, remote update possible
Display:	64 x 128 pixels/7 lines à 20 characters
Keyboard:	Alphanumeric keypad, numeric keypad, Navigation and Function keys

Protocols:	
Internet:	IP, TCP, UDP, RTP, DHCP, TFTP, ICMP, SNMP, LDAP, PPP, PPPoE, PPTP, MPPE, NAT
Configuration:	Telnet, HTTP, Java, SNMP
Voice over IP:	H.323, H.225, H.245, RAS, RTP, RTCP, H.450, H.235
Quality of service:	TOS, IEEE 802.1p and 802.1q
Voice encoding:	Voice activity detection (VAD), comfort noise generation (CNG), dynamic jitter buffer, G.711 A-law, G.711 μ -law, G.723.1 (5.3 and 6.3 kbps), G.729A
Echo compensation:	G.168
Connection lines:	
Handset connection line:	Maximum length of 1.8 m (spiral cable)
Mains adapter connection line:	Length 2m
Ethernet connection lines:	Length 3 m
General data:	
Weight (incl. mains adapter):	Approx. 0.95 kg
Dimensions: (W x H x D)	Approx. 220 x 90 x 200 mm
Temperature ranges:	
In operation:	0 °C to +40 °C, 10 % - 90 % relative humidity, non-condensing
During storage:	-10 °C to +70 °C

IP 21

Power supply:	Fixed mains adapter: Primary: 230 V AC, 50 Hz, 75 mA
Ethernet:	1 × 10/100-BASE-T auto-negotiated
Hardware:	
CPU:	RISC CPU for protocol processing, digital signal processor (DSP) for the compression of up to two simultaneous calls
Memory:	8 MB DRAM, 4 MB Flash, remote update possible
Internet:	IP, TCP, UDP, RTP, DHCP, TFTP, ICMP, SNTP, LDAP, PPP, PPPoE, PPTP, MPPE, NAT
Configuration:	Telnet, HTTP, Java, SNMP
Voice over IP:	H.323, H.225, H.245, RAS, RTP, RTCP, H.450, H.235, T.38
Quality of service:	TOS, IEEE 802.1p and 802.1q
Voice encoding:	Voice activity detection (VAD), comfort noise generation (CNG), dynamic jitter buffer, G.711 A-law, G.711 μ -law, G.723.1 (5.3 and 6.3 kbps), G.729A
Echo compensation:	G.168
Interfaces:	
Analogue terminals:	1 or 2 depending on the version
Door intercom system:	1 × terminal strip 4+n
Audio:	1 × 3.5 mm stereo jack for connecting an analogue audio source
General data:	
Weight (incl. mains adapter):	Approx. 0.61 kg
Dimensions: (W x H x D)	Approx. 210 x 134 x 32 mm

Temperature ranges:	
In operation:	0 °C to +40 °C, 10 % - 90 % relative humidity, non-condensing
During storage:	-10 °C to +70 °C

IP 10

Power supply: Max. current consumption Max. power consumption	Supply via USB connection cable 40 mA 180 mW
Hardware:	
Keyboard:	Numeric keypad, Clearing key, Redial key, R key for holding, switching and forwarding
USB connector:	Compatible with USB specification 1.1 Compatible with USB audio devices
Connection lines:	
Handset connection line:	Maximum length of 1.8 m (spiral cable)
USB connection line:	Length 2 m
General data:	
Weight (incl. handset):	Approx. 0.5 kg
Dimensions: (W x H x D)	Approx. 130 x 70 x 210 mm
Temperature ranges:	
In operation:	0 °C to +40 °C, 10 % - 90 % relative humidity, non-condensing
During storage:	-10 °C to +70 °C

Appendix C: Menu structure IP 200/202

Menu

- |—call lists.....
 - |—calls (combined).....
 - |—filter
 - |—calls (inbound).....
 - |—calls (outbound).....
 - |—active recalls.....
- |—directory.....
 - |—directory input.....
 - |—telephone number.....
 - |—number
 - |—name
 - |—setup.....
 - |—ringing
 - |—change melody.....
 - |—notes.....
 - |—search (local).....
- |—call diversion.....
 - |—clear diversion.....
 - |—current diversion....
 - |—l:.....
- |—phone access.....
 - |—lock phone.....
 - |—change PIN.....
 - |—switch user.....
 - |—register co-user.....
 - |—unregister co-user...
- |—switches.....
 - |—ringing.....

innovaphone

```
|      |—call waiting
|      |—number present.
|      |—headset
|      |—direct dial
|      |—destination number...
|—configuration.....
|      |—general settings.....
|          |—time/date/language...
|          |—location.....
|          |—directories.....
|          |—dialtone type
|          |—dial delay
|          |—reset configuration..
|—IP settings.....
|      |—DHCP mode
|      |—IP adresses.....
|      |—time server.....
|      |—Internet access.....
|      |—advanced.....
|—registration.....
|      |—name :
|      |—number:
|      |—passw.:
|      |—VoIP gatekeeper.....
|      |—RAS protocol
|—function keys.....
|—preferences.....
|      |—name:
|      |—ringing tone.....
|      |—call groups.....
|      |—partners.....
|      |—pickup list.....
```

- |— informations.....
 - |— calls.....
 - |— memory.....
 - |— version.....

Appendix D: Definition of terms

Call waiting	Signal tone on the handset from another caller during an existing call
DTMF	Abbreviation for D ual T one M ulti F requency = international touch tone dialling method (occasionally referred to as MFV = M ehrfrequenz W ahlverfahren).
Ethernet	A transmission standard for local networks. 10/100 Base-T is an Ethernet type.
Gatekeeper	Routing facility in a VoIP network. Independent logical components which can be operated however e.g. on a gateway
Gateway	Device which establishes a connection between two different types of networks, e.g. between an ISDN and an IP network
G.711	Transmission standard with 64 kbps voice data (uncompressed)
G.723	Transmission standard with 5.3 or 6.3 kbps voice data (compressed)
G.729A	Transmission standard with 8 kbps voice data (uncompressed)
Hub	The individual stations are connected by means of a star coupler ("hub") in the 10/100 Base-T.
IP 400	Gateway with 3 ISDN basic accesses
IP 3000	Gateway with ISDN primary rate access
IP address	Internet address of a device. The addresses are split up into several sections, separated by full stops.
LAN	Abbreviation for L ocal A rea N etwork = local network

MAC address	Hardware address of a device in the network. MAC addresses are assigned unambiguously worldwide.
Switching	Switching between two call partners, with the call partner on hold not being able to listen to the conversation.
PIN	Personal security code used to lock an IP telephone
Registration	Logging a VoIP terminal (e.g. your IP telephone) onto a gatekeeper

Index

A

administration	87
analogue connection	91
analogue terminal interfaces	91
announcement function	42
Announcement key	42
answering a call	
IP10	97
IP200	23

B

bell	66
browser	87

C

call counter	38
call diversion	18, 57
cancelling	60
setting up	58
call list	39
call lists	18, 45
call number types	26
call waiting	156
IP10	99
IP200	35, 67
IP21	91
calling line identification presentation .	
67	
changing the user	65
conference	34
configuration	18
configuration by telephone	68
connecting the telephone	14

D

day/night switchover	130
declaration of conformity	144
deinstallation	
SoftwarePhone	103
dialling numbers from the directory	25
direct dialling	67
directories	18
directory	50
saving new entries	51
settings	54
notes	56
ring tone	55
ringing	55
display	15
DTMF	156

E

editing input fields	21
en-bloc dialling	71
environmental sustainability	144
Ethernet	156

F

function keys	19
---------------------	----

G

G.711	156
G.723	156
G.729A	156
gatekeeper	15, 156
gateway	156
general settings	18

H

hands-free conversation	30
headset	67
holding a call	32

hub	156	IP21	88
I		cleaning	146
information	19	disposal	146
installation		installation and connection	145
PBX operator	128	malfunctions	146
SoftwarePhone	101	power supply	145
IP 10 USB telephone	95	safety instructions	145
IP settings	18	technical data	151
IP10	95	volume adjustment	93
answering a call	97	IP21 view	88
call waiting	99	IP3000	156
cleaning	147	IP400	156
connecting	96	J	
disposal	148	journal	134
installation and connection	147	connected calls, incoming	134
malfunctions	147	connected calls, outgoing	134
manual dialling	97	missed calls	134
power supply	146	K	
putting the telephone		key function	
into service	96	IP10	96
redialling	98	IP200	11, 12
refer-back	98	L	
safety instructions	146	LAN	156
software user interface	100	lists	20
switching a call	98	lock phone	61
technical data	152	logging off joint users	65
terminating a call	97	logging on joint users	63
transferring a call	99	M	
view	95	MAC address	157
IP200		main menu	23
cleaning	142	manual dialling	24
connection	141	multiple registration	63
disposal	142	muting	31
installation	141		
malfunctions	142		
menu structure	153		
power supply	141		
safety instructions	141		
technical data	149		

N

notes56

O

open listening29

operator console127

P

partner function42

partner key43

PBX operator127

 active132

 basis parameters135

 busy field133

 call diversion139

 configuration135

 installation128

 New131

 new131

 optimum utilisation137

 options135

 transferring calls after

 consultation137

 transferring calls without

 consultation138

 user interface129

 Waiting130

 waiting130

PBX queue137

phone access18, 61

pickup list44

pickup list key44

PIN157

preferences19

prepared dialling24

Q

quick setup87

R

redialling

 IP1098

 IP20027

registration19, 157

ring tone55

S

safety instructions141

 IP10146

 IP200141

 IP21145

Setup

 SoftwarePhone107

silent telephone66

software user interface

 IP10100

SoftwarePhone

 installation101

 Setup

 H.323 index card110

 USB index card109

 setup107

 about index card116

 application index card107

 audio index card108

 codec index card112

 license index card115

 location index card114

 ring index card109

 telephone index card111

 trace index card115

 setup wizard103

 system requirements101

 user interface116

special characters22

switches18, 66

 bell66

 call waiting67

calling line identification	
presentation	67
direct dialling	67
headset	67
switching	157
IP10	98
IP200	33
switching a call	
IP10	98
IP200	33
symbol	16

W	
warranty	144

T

technical data	
IP10	152
IP200	149
IP21	151
TEL1	91
TEL2	91
telephone directory	
deleting entries	57
editing entries	52
telephone lock	61
change PIN	62
terminating a call	
IP10	97
IP200	23
terms	156
transferring a call	
IP10	99
IP200	35
troubleshooting	143

U

using a headset	45
-----------------------	----

V

VIP filter	66
volume	17



*innovaphone® AG
Böblinger Straße 76
D-71065 Sindelfingen*

*Tel: +49 (70 31) 7 30 09-0
Fax: +49 (70 31) 7 30 09-99*

*www.innovaphone.com
info@innovaphone.com*