Advanced Information

VoIP System Telephones
Standard VoIP Telephones

COMfortel® 1400 IP
COMfortel® 2600 IP
COMfortel® 3600 IP

Table of Contents

About this Manual 20

Basic Knowledge 21

Device Overview 22
- Keys and LEDs 22
- Display 35
- Overview of Connections 39

Display Elements 42
- home screens 42
- Status Bar 48
- Status Info 51

Apps 52
- Setup Assistant 53
- Telephony App 53
- All Apps 57

Indroduction to the Operation 62
- Function Keys 62
- Android Keyboard (Screen Keyboard) 65
- Entry and Selection Fields 68
- Lists 69

Configuration Manager 71
- Opening the Configuration Manager 71
- Notes for Using the Configuration Manager 76
- Settings Configuration Manager Configuration Manager 83
- Settings Telephone Configuration Manager 85

Help 88
Opening Help 88

Telephoning 95

Incoming Calls 96
Options during an Incoming Call 96
Accepting an Incoming Call 98
Rejecting an Incoming Call 98
Putting a Caller On Hold 99
Forwarding Incoming Calls 99

Call Waiting Calls 101
Options during a Call Waiting Call 101
Rejecting a Call Waiting Call 102
Accepting a Call Waiting Call 103
Forwarding a Call Waiting Call 103
Switching Off the Call Waiting Tone 104

Outgoing Calls 105
Options for Outgoing Calls 105
Picking up Receiver and Dialling Telephone Number 106
Dialling a Telephone Number with Dial Preparation 107
Initiating an External Call with Calling Line Identity Restriction 108
Options for Unsuccessful Calls 109
Initiating Callback when Line is Busy 110
Initiating Callback on No Reply 112
Initiating a Priority Call when Do-Not-Disturb is Enabled 113

Call 114
Options during a Call 114
Information about a Call 115
Sending DTMF Signals 115
Muting a Call 116
Ending a Call 116
Query Call 117
Initiating a Query Call 117
Ending a Query Call 118
Options during a Query Call 119
Toggling Between Conversations 120
Ending One of the Two Calls 120
Connecting Both Communication Partners 121
Transferring 122
Options for Transferring a Call 122
Transferring with Announcement 123
Transferring without Announcement 124
Placing Call Partner in Waiting Loop 125
Calling a 3rd Internal Subscriber and Transferring them to an Active Call Partner 126
Conference Call 128
Initiating Conference Calls 128
Options during a Conference Call 128
Initiating Toggling Between Conversations during a Conference Call 129
Ending a Call With One of the Conference Call Partners 130
Connecting Both Conference Call Partners 130
Ending a Conference Call Completely 131

Hands-Free Calling 132
Initiating a Call in Hands-Free Calling Mode 132
Ending a Call in Hands-Free Calling Mode 133
Switching On Hands-Free Calling during a Call 133
Switching Off Hands-Free Calling and Returning to Normal Calling .. 133
Loudspeaker Listening 135
Switching On Loudspeaker Listening during a Call 135
Switching Off Loudspeaker Listening and Returning to Normal Calling 135
Ending a Call in Loudspeaker Listening Mode 136
Headset Call 137
Initiating Headset Calls 137
Ending a Call in Headset Operation 137
Initiating the Listen-in Function on the Receiver 138
Ending the Listen-in Function On the Receiver 138

Contacts and Phone Number Lists 140

Contacts 141
- Searching and Displaying a Contact 142
- Dialling from the Contacts 143
- Creating a Contact 144
- Editing a Contact 146
- Deleting a contact 147
- Sharing Contacts 148
- Options for Configuring Contacts 149
- Configuring a Link Between an IP Camera and a Contact 151
- Hiding a Contact 152
- Adding/Removing Favourites 154
- Selecting Contacts for Display 154
- Function Key for Contact 155
- Setting Display Options 156
- Adopting a Telephone Number from Dial Preparation 157
- Adopting a Telephone Number from a List of Telephone Numbers 158
- Adopting Telephone Numbers to Other Dialogues 159
- Importing/Exporting Contacts 159

Redial List 161
- Opening the Redial List 161
- Dialling from Within the Redial List 162
- Deleting Entries from the Redial List 162

Call Log 164
Opening the Call Log 164
Dialling from the Call Log 165
Deleting Entries from the Call Log 166
Settings Configuration Manager Call log 166
Settings Telephone Call log 168
Caller List 171
Opening the Caller List 171
Dialling from Within the Caller List 172
Deleting Entries from the Caller List 173
LDAP Client 174
Adding New Account 174
Changing the Permission Level 176
Synchronizing the Account 177
Deleting an Account 177

Functions 179

External Line Transfer (System Telephone) 181
How External Line Transfer Works 181
Function Key for Exchange Line Transfer 182
Call Waiting 184
Switching Call Waiting On/Off 184
Function Key for Call Waiting 185
Do-Not-Disturb 186
Switching the Do-Not-Disturb Function On/Off 186
Function Key for Do-Not-Disturb 187

Automatic Bandwidth Amplification 189
Switching Automatic Bandwidth Amplification On/Off....189
Function Key for Automatic Bandwidth Amplification 190
Boss/Secretary Function (System Telephone) 191
Procedure when Calling the Boss Telephone....191
Switching the Boss/Secretary Function
on the Boss Telephone On/Off 193
Secretary Function Key on the Boss Telephone....193
Boss Function Key on the Secretary Telephone....195
Follow-Me....197
Switching Follow-Me On/Off 197
Function Key for Follow-Me....198
Targeted Exchange Line Access (System Telephone)....200
Initiating Targeted Exchange Line Access....200
Function Key for Targeted Exchange Line Access 201
Group Function (System Telephone) 203
Detailed Information About Group Functions (Call Types) 203
Logging the Telephone In/Out 205
Function Key for the Group Function....206
Logging Telephone Out of All Groups....207
Function Key for Logging Out of All Groups 208
Function Key for Displaying the Group State....209
Headset Operation 212
Switching Headset Operation On/Off 212
Function Key for Headset Operation 213

InterCom Announcement/Hands-free calling 215
How InterCom Announcement Works 215
Performing InterCom Announcement 216
Function Key for InterCom Announcement 217
How InterCom Hands-Free Calling Works 220
Using InterCom Hands-Free Calling 220
Function Key for InterCom Hands-Free Calling 221
Switching InterCom Permission On/Off 223
Function Key for InterCom permission 224
Configuration Switchover (System Telephone) 225
Manual Configuration Switchover 225
Function Key for Configuration Switchover 226
Macro Function 228
Macro Execution Process 228
Function Key for the Macro Function 229
Pick-Up 233
Performing Pick-Up 233
Pick-Up During a Call 234
Function Key for Pick-Up 235
Power Dialling 237
How Power Dialling Works 237
Initiating Power Dialling 238
Cancelling Power Dialling 238
Relays (System Telephone) 239
Switching Relays On/Off 239
Function Key for Switching Relays 240

Calling Line Identity Restriction 242
Switching Calling Line Identity Restriction On/Off 242
Function Key for Calling Line Identity Restriction 243
Call Forwarding 245
Call Forwarding Variants 245
Call Forwarding for Subscribers 246
Function Key for Switching Off All Call Forwarding for Subscribers 248
Function Key for Call Forwarding for Subscribers 249
Call Forwarding for Subscribers in the PBX 251
Function Key for Call Forwarding for Subscribers in the PBX 253
Call Forwarding for External Numbers 255
Function Key for Call Forwarding for External Phone Numbers 258
Blacklist 261
Settings Configuration Manager Blacklist 261
Settings Telephone Blacklist 262
Function Key for Blacklist 262
Control by External Apps 264
Function Key for Control by External App 264
Telephone Line 266
Function Key for the Telephone Line 266
Announcement Before Answering for Group (System Telephone) 270
More Information on "Announcement Before Answering" for Group 270
Switching Announcement Before Answering for Group On/Off 271
Function Key for Announcement Before Answering 272

Door Functions (System Telephone) 274
Using the Door function 274
Own Telephone Rings (Door Call) – Opening Door 275
Door Knock – Opening Door 276
Function Key for the Door Functions 277
Waiting Field Function (System Telephone) 280
Configuring a Waiting Field 280
Process of Call Acceptance in Waiting Field 281
Switching Waiting Field Reception On/Off 284
Function Keys for a Shared Line 285
Function Key for Switching Waiting Field Reception On/Off 288
Speed Dialling 290
Options for Using Speed Dialling Keys 290
Display of the Registration Status 291
Function Key for Speed Dialling 292
Local Answering Machine 295
Local Answering Machine 296
Settings Configuration Manager Answering Machine 298
Settings Telephone Answering Machine 308
Forwarding a Caller to the Answering Machine 318
Answering Machine Accepts Call – Adopting Call 319
Function Key for Readiness 320
Function Key for Message Forwarding via E-Mail 321
Function Key for Call Acceptance Rules 323
Announcement Settings in the Telephone 325
Recording a Call 327

Function Key for Starting Call Recording 328
Function Key for Automatic Call Recording 329
Remote Access Variants 330
Configuring Remote Access....331
Performing Remote Access 332
Function Key for Remote Access....334
E-Mail 335
Settings Configuration Manager E-Mail....336
Settings Telephone E-Mail....342
Answering Machine List 346
Opening the Answering Machine List....346
Listening to Recordings
(Messages, Voice Memos and Call Recordings)....349
Forwarding Recordings
(Messages, Voice Memos and Call Recordings) via E-Mail....350
Dialling from the Answering Machine List....351
Deleting Recordings
(Messages, Voice Memos and Call Recordings) 352
Function Key for the Answering Machine List 353
Voice Memos....355
Recording Voice Memos....355
Listening to Voice Memos....356
Function Key for Recording Voice Memos 357

E-Mail and Instant Messaging 358

E-Mail Account 359

Creating an E-Mail Account 359

Configuring an E-Mail Account 361

Removing an E-Mail Account 363

E-Mail 364

Reading and Replying to E-Mail 364

Writing and Sending E-Mails 365

Instant Messaging 367

Configuring the Instant Messaging App 367

Reading and Replying to an Instant Message 368

Writing and Sending an Instant Message 369

Voice Mailboxes on the PBX 371
Voice Mailbox 372
Settings Configuration Manager Voice Mail and Fax Boxes 374
Settings Telephone Voice Mail and Fax Boxes 375
Signalling of Fax Boxes 376
Automatic Operation 376
Function Key for Automatic Operation 376
Readiness 378
Function Key for Readiness 379
Deputy Function 381
Function Key for the Deputy Function 382
Message Forwarding 383
Function Key for Message Forwarding 384
Notification via E-Mail 386
Function Key for Notification via E-Mail 386
Remote Access 388
Performing Remote Access 388
Function Key for Remote Access 391
Message List 393
Opening the Message List of a Voice Mailbox 394
Opening the Message List of a Fax Box 396
Listening to Messages 398
Distributing Messages 399
Dialling from the Message List 401
Sending a Telefax as E-mail 402
Deleting Messages from the Message List 403
Function Key for Opening a Message List 404

Announcements 406
Recording an Announcement 406
Switching Your Own Announcement On/Off 407
Deleting an Existing Announcement 408
Voice Memos 410
Recording Voice Memos 410
Listening to Voice Memos 411
Distributing Voice Memos 412
Deleting Voice Memos 413
Function Key for Recording Voice Memos 413
Archive 416
Moving a Message into an Archive 416
Opening an Archive 416
Deleting Messages from the Archive 417
Settings 418
Providers and PBXs 419
Management Configuration Manager Providers and PBXs 420
Management Telephone Providers and PBXs 422
Settings Configuration Manager Providers and PBXs 423
Settings Telephone Providers and PBXs 446
Accounts 468
Management Configuration Manager Accounts 469
Management Telephone Accounts 470
Settings Configuration Manager Account 471
Settings Telephone Account 483
Function Key for Use of an Account 494

Network 496
Settings Configuration Manager Ethernet 496
Settings Telephone Ethernet 507
Settings Bluetooth (only COMfortel 3600 IP) 520
Function Key for Bluetooth 521
Sound 523
Settings Configuration Manager Sounds 525
Settings Telephone Sounds 528
Settings ringtone 532
Function Key for the Ringtone 532
Display 534
Settings Configuration Manager Display 534
Settings Telephone Display 537
Function Key for the Idle State (Sleep) 543
Apps, Running Services and Storage Use 545
Emergency numbers 547
Location 549
Settings Configuration Manager Location 549
Settings Telephone Location 550
File Manager 552
Managing Data in the File Manager 552
IP Camera 554
Management Configuration Manager IP Camera 555
Management Telephone IP Camera 556
Settings Configuration Manager IP Camera 557
Settings Telephone IP Camera 561
Function Key for an IP Camera 565

Permissions....567
Settings Configuration Manager Permissions....568
Settings Telephone Permissions....570
Function Keys....573
Settings Configuration Manager Function Keys....573
Settings Telephone Function Keys....574
Security....576
Settings Configuration Manager Security....576
Settings Telephone Security....577
Language on the Telephone....583
Settings Configuration Manager Telephone language....583
Settings Telephone Telephone Language....583
App Accounts....584
Date and Time....587
Settings Configuration Manager Time and Date....587
Settings Telephone Time and Date....589
Telephone Information....592
Using the Configuration Manager....593
Using the Telephone....593
External Control....594
Receiving Action URLs (HTTP-Requests)....594
Settings Configuration Manager External Control....596
Settings Telephone External Control....597

Service and Maintenance 600

Backup and Reset 601
Settings Configuration Manager Backup and Reset 601
Settings Telephone Backup and Reset 605
Downgrading the Telephone 607

Update and Provisioning 609
Settings Configuration Manager Update and Provisioning 611
Settings Telephne Update and Provisioning 619
Procedure in Case of Firware Update Problems 630

Remote Configuration 632
Configuring the Telephone Remotely with ARA Server via the Internet 632

Storage 634
Removing and Mounting an SD Card 634
Erasing a data storage device 635

Shutting Down and Restarting the Telephone 636

Extending the Telephone Functionality 637
Settings Configuration Manager Online Shop 638
Settings Telephone Online Shop 639

Service Data 640
Recording the Network Data Stream 640

Glossary 642

Glossary 643

A 643

B 644

C 644

D 646

E 649

F 650

G 651

H 652

I 653

J 654

K 655

L 655

M 656

N 657

O 658

P 659

Q 662

R 662

S 663

T 666

U 667

V 668

W 670

Abbreviations 671

Index 675

About this Manual

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Manuals

You find the Instructions and the Quick Guide on the Internet. After a firmware update you usually require up-to-date manuals. You find these on the Internet.

Basic Knowledge

This section provides a general overview of the telephone and the integrated Configuration Manager. Here you will find a description of the keys, displays and connections, and an overview of elements and symbols used on the home screen. General operating instructions for adjusting telephone settings are also included as well as an overview of the apps that are installed on the telephone. Furthermore, there is an overview of how to open and to use the Configuration Manager. You can also find information about how to use the help function.

Topics

– Device Overview (page 22)
– Display Elements (page 42)
– Apps (page 52)
– Indroduction to the Operation (page 62)
– Configuration Manager (page 71)
– Help (page 88)

Device Overview

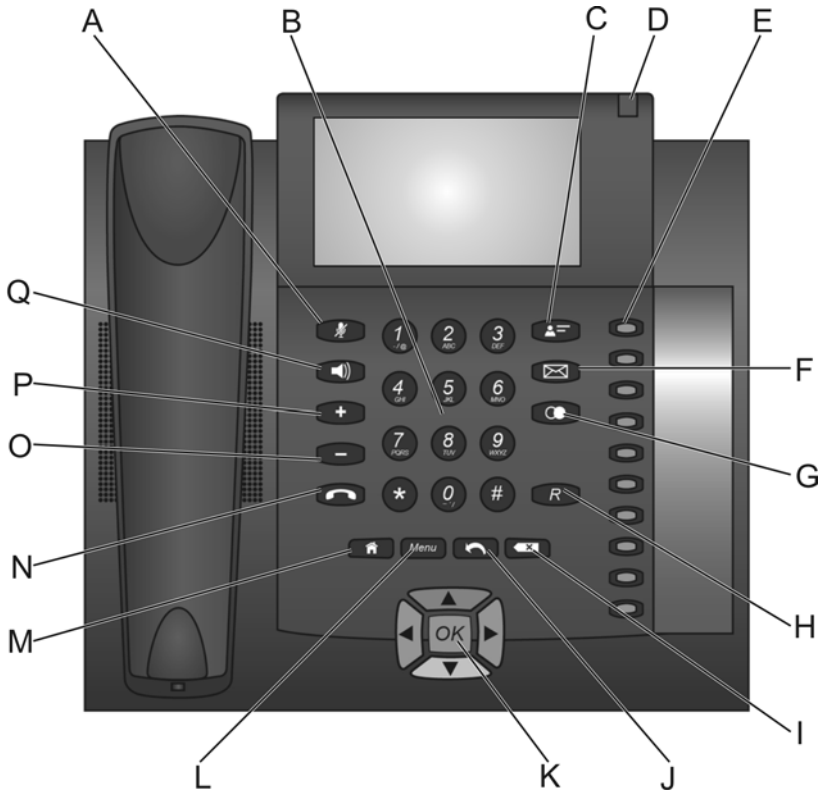
The device has a display with touch function and a variety of keys (some with LED). Therefore, the device may be operated via display and key control.

The COMfortel 1400 IP also has a display LED. The display LED shows the operating condition of the telephone and missed calls, depending on the settings of the LED.

The COMfortel 3600 IP is equipped with a display LED and additional sensors which provide automatic adjustment of the display lighting and gesture control.

Keys and LEDs

The next figure shows the keys and LEDs on the COMfortel 1400 IP.



A Microphone key with LED

B Keypad

C Contact/telephone book key

D Display LED

E Programmable function keys with LEDs

F Message key with LED

G Redial list key

H Query key

I Delete key

J Back key

K Directional pad

L Menu key

M Home key

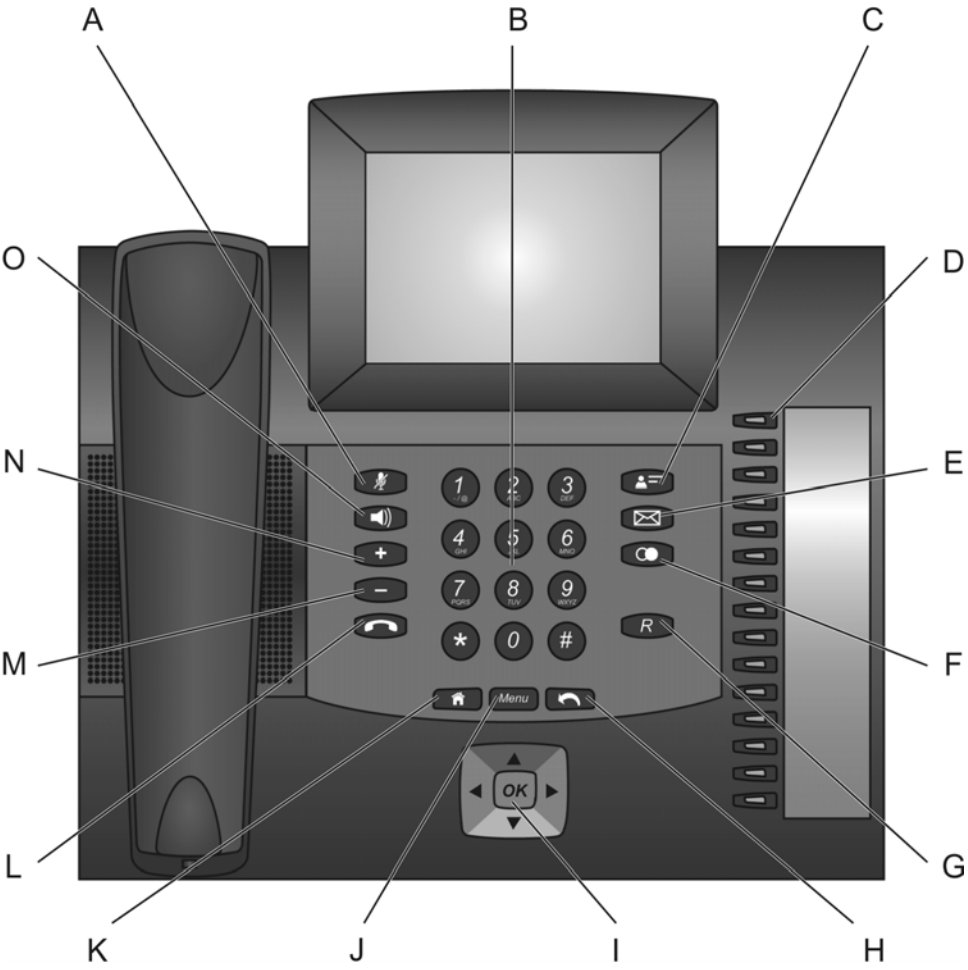
N Hook key

O Minus key

P Plus key

Q Loudspeaker key with LED

The next figure shows the keys and LEDs on the COMfortel 2600 IP.



A Microphone key with LED

B Keypad

C Contact/telephone book key

D Programmable function keys with LEDs

E Message key with LED

F Redial list key

G query key

H Back key

I Directional pad

J Menu key

K Home key

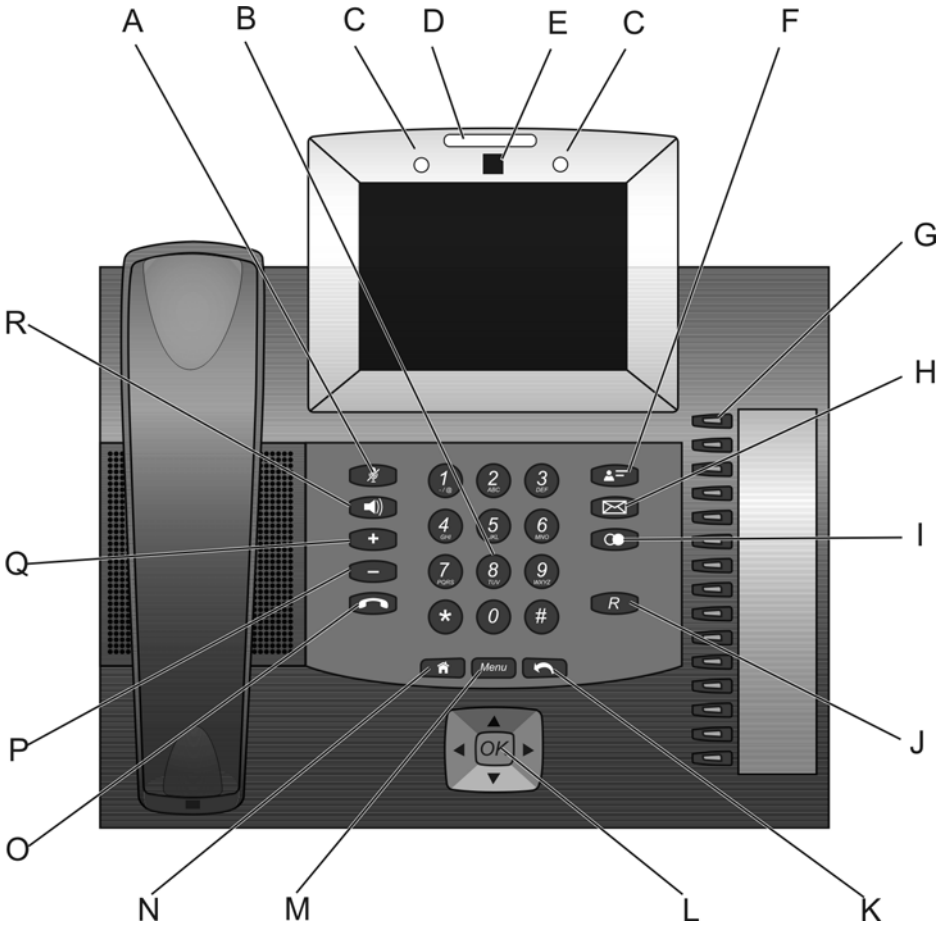
L Hook key

M Minus key

N Plus key

O Loudspeaker key with LED

The figure below shows the keys and LEDs on the COMfortel 3600 IP.



A Microphone key with LED

B Keypad

C Proximity sensor

D Display LED

E Brightness sensor

F Contact/telephone book key

G Programmable function keys with LEDs

H Message key with LED

I Redial list key

J Query key

K Back key

L Directional pad

M Menu key

N Home key

O Hook key

P Minus key

Q Plus key

R Loudspeaker key with LED

Keypad

Use the keypad to dial phone numbers and to enter digits and letters. Press the digit keys one or more times until the character appears. The assignment is listed in the table below.

Key	Assignment
1	1 - / @ +
2	a b c 2 A B C ä Ä
3	d e f 3 D E F
4	g h i 4 G H I
5	j k l 5 J K L

Key	Assignment
6	m n o 6 M N O ö Ö
7	p q r s 7 P Q R S ß
8	t u v 8 T U V ü Ü
9	w x y z 9 W X Y Z
0	Space . , 0 : ’ “ ? ¿ ! ¡ _
*	* ( ) [ ] < = > « » ^ ´ ` ~ \\\\\\\{ \\\\\\\}
#	# % & § £ $ Euro symbol

Determined Function Keys

Microphone key with LED

- Switches the microphone off (mute) and on again.
- The key's LED blinks red as soon as the microphone is switched off.

Loudspeaker key with LED

- Switches the speaker on during a call.
- Press the key twice to switch on hands-free calling.
- The key's LED lights up in red as soon as loudspeaker listening is switched on.
- The key's LED blinks red as soon as hands-free calling is switched on.

Plus key

- Increases the volume of the ringer, receiver, or loudspeaker, depending on operating mode.

Minus key

- Reduces the volume of the ringer, receiver, or loudspeaker, depending on operating mode.

hook key

- Starts/ends headset calls or calls in hands-free calling mode.

Contact/telephone book key

- Opens the contacts stored in the telephone.

Message key with LED

- Opens the caller list, message list and answering machine list.
- Starts the Instant Messaging app.
- The key's LED indicates the presence of new (red blinking) or previously viewed (continuous red) entries.

redial list key

- Opens the redial list.

query key

- Initiates a query call.

Programmable Function Keys

The basic version of the telephone provides 10 (COMfortel 1400 IP) or 15 (COMfortel 2600/3600 IP) programmable function keys, which the user simply presses to execute the functions configured on them. Each function key has a multi-colour LED that indicates its status, based on its assignment.

Note: In addition to the programmable function keys with LEDs on the right of the device, you can use widget functions to create up to 10 touch function keys on the home screens and the favourites bars.

Up to three COMfortel Xtension300 key extension modules (not included in the delivery) can be attached to the COMfortel 2600/3600 IP to add freely programmable function keys. Modules are attached to the right-hand side of the telephone. When the maximum number of modules has been installed, 105 freely programmable function keys are available.

The programmable function keys can each be defined twice (on two levels). You can configure how to access the second level of the function keys (Shift). Using the Shift key to access the second set of functions ("2nd level") is always enabled. If you want to use this method, you must assign the Level 2 function to one of your function keys. The "Double-click for shift" (300 ms) method can be disabled if it is not required (see chapter Settings > Function key > Settings Configuration Manager Function keys).

Menu Key for Opening the Menu

The menu can be accessed via the Menu **Menu key**.

Use the menu for quick access to notifications and system settings. Depending on from where it is opened, the menu offers a list of options which are available from there. The following options are available in the main menu:

Notifications

To open the notifications window, press the menu key and tap on **Notifications**.

Settings

Press the menu key and tap on **Settings** to open a selection list in which you can make different system settings.

Manage apps

Select the app by pressing the menu key and tapping on **Manage Apps**. You will have access to information and be able to manage the app:

- Information: **Storage** and **Cache**
- Actions: **Force stop**,**Disable** and **Clear data**

Wallpaper

By pressing the menu key and tapping on **Wallpaper**, you can select the desired wallpaper for the home screens from the gallery, the live wall papers or the wallpapers.

Using the Home and Back Keys for Navigation

Home key

- Displays the home screen on the display. Previously started actions will continue in the background.

Back key

- Returns you to the most recently opened screen and ends the current action.

Delete key (only COMfortel 1400 IP)

Delete key

- Deletes the last character in front of the cursor.

Directional Pad

The directional pad helps you navigating on the display and thus to use the keys to operate the telephone.

Press an **arrow** key on the directional pad to start key-based operation of the display and to enable the elements. Press the **OK key** on the directional pad to select the enabled element and run its function.

Elements on the screen change their background colour to indicate their state:

- **light blue**: An element is displayed with light blue border if it was selected using the direction keys.
- **grey**: The selected element is locked and cannot be selected by pressing the OK key.

Message Key LED

The message key LED shows the new entries in lists. The LED can be configured. Either it lights only if entries are not read yet, or if they are read but not deleted yet. If you find the LED signals disruptive or annoying, they can be switched off.

Proceed as follows for configuration:

- Using the Configuration Manager (page **Settings > Device > Display**)
- Using the telephone (page **> Settings > Device > Display**)

Display-LED (only COMfortel 1400 IP and COMfortel 3600 IP)

The display LED signals the operational state of the telephone, missed calls and new messages. You can select different settings (see chapter Settings > Display > Configuring the Display LED (only COMfortel 1400 IP and COMfortel 3600 IP).

Sensors (only COMfortel 3600 IP)

Brightness sensor

If the automatic brightness adjustment function is switched on, the brightness sensor is used to adjust the display lighting to the brightness of the telephone's surroundings. The user can choose to either set te required brightness manually or switch to automatic adjustment (see chapter Settings > Display > Setting the Brightness of the Display).

Proximity sensor

The proximity sensors detect for example user proximity or a motion in front of the telephone. The sensitivity of the proximity sensors can be set (see chapter Settings > Display > Setting the Sensitivity of the Proximity Sensor (only COMfortel 3600 IP)). This can be used to exit the power save mode or the ring signal during a call via waving (see chapter Settings > Sound > Switching Silence on User Proximity On/Off (only COMfortel 2600 IP)).

Display

The following image shows the telephone display with an open home screen.

A Status bar

B Home screen with a free area for adding apps and widgets

C Favourites bar with a free area for adding apps and widgets

D Status Info

E Call log

F Contacts

G Apps

H Browser

Using the Touch Function of the Display

Note the basic safety information below.

Caution: Improper cleaning or operation can damage or destroy the display.

- Keep the display clean. To do this, use a soft, dry cloth (for COMfortel 3600 IP in the scope of delivery).
- To operate the telephone, use your fingers. Under no circumstances use pointed objects on the display (e.g. ballpoint pens or pencils).
- Never apply force or excessive pressure when touching the display.

Important: Electrostatic discharge or moisture may cause the display to malfunction.

- Avoid contact with other electrical equipment.
- Only clean the display with the dry cloth supplied.

Notes:

Remove the protective film from the display before use.

The display reacts most effectively to fingertip control.

The display enters its idle state when the telephone is not used for a certain amount of time.

To bring the display out of the idle state, press any key.

The actions listed below are available on the display:

Selecting, Opening, etc.

Tap on the corresponding position on the display briefly with your fingertip (e.g. symbol, button, list entry).

... to select, open, start, emphasise, mark, or switch on/off.

Selecting Elements, Opening Settings

Touch and hold the corresponding place on the display (e.g. symbol, button, list entry, free area on the home screen).

... as a preparation for moving or deleting elements (apps, shortcuts, widgets).

... for opening additional settings e.g. wallpaper for the home screens.

Moving and Deleting Elements, Scrolling

Use your fingertip to drag the element up, down, right, or left across the display ...

... to move elements (e.g. to the home screen, to the **Delete** symbol).

... to scroll one screen at a time (up/down, right/left).

Fast Scrolling, Scrolling through Web Pages

Swipe quickly with your fingertip to the top, bottom, right, or left...

... to quickly scroll through a list.

... to scroll through the home screens.

... to scroll through web pages.

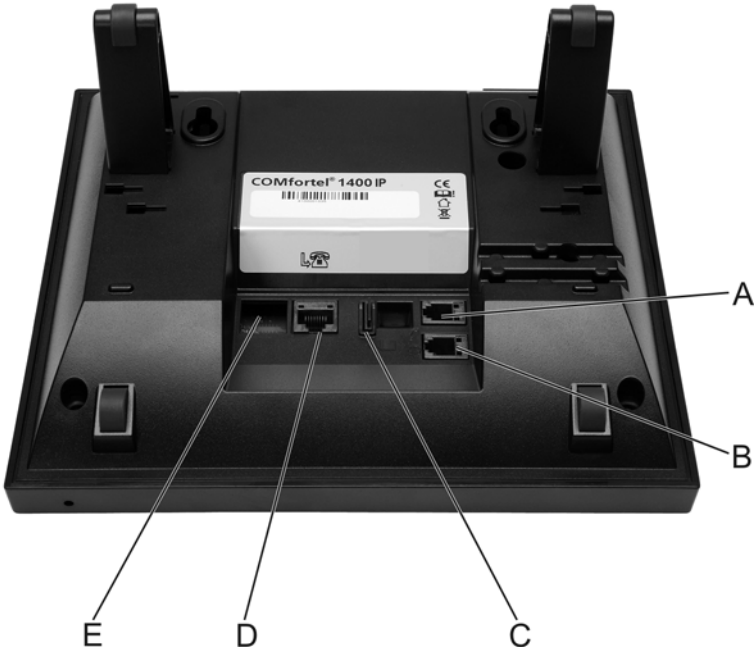
Tap on the display with your fingertip ...

... to immediately stop fast scrolling.

In some alphabetically ordered lists (e.g. Contacts) the symbol is displayed on the right. Drag the symbol upwards or downwards to scroll to the letter.

Overview of Connections

The next figure shows the connections on the bottom side of the COMfortel 1400 IP.



A Receiver socket

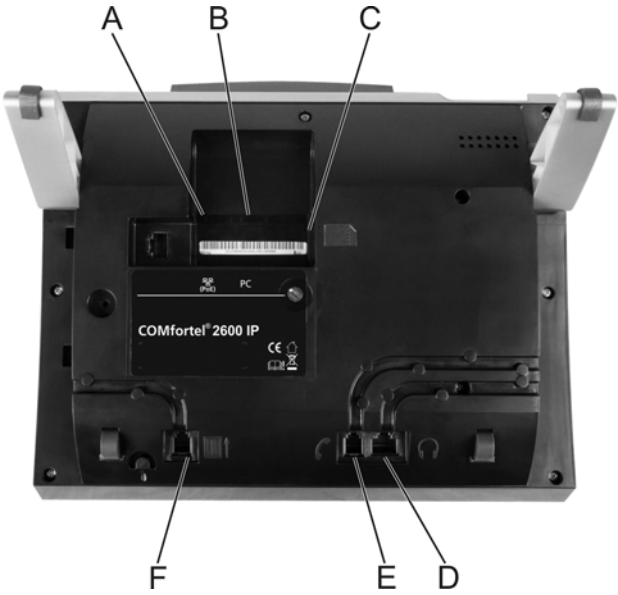
B Headset socket

C Micro SD card slot

D Network cable socket (PoE)

E PC socket

The next figure shows the connections on the bottom side of the COMfortel 2600 IP.



A Network cable socket (PoE)

B PC socket

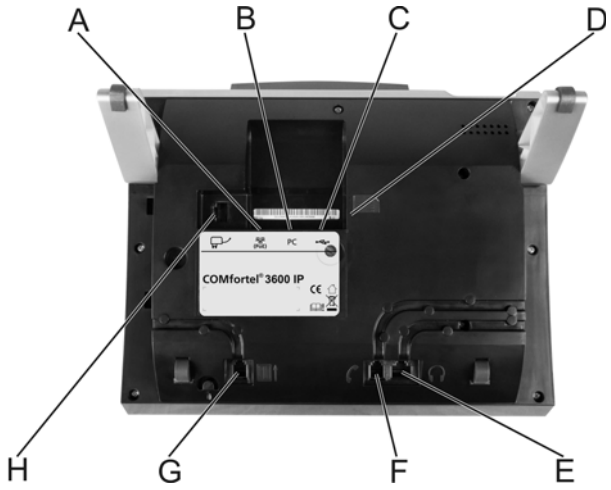
C data storage device slot

D Headset socket

E Receiver socket

F Socket for key extension module

The next figure shows the connections on the bottom side of the COMfortel 3600 IP.



A Network cable socket (PoE)

B PC socket

Note: The upper USB port, as seen from the bottom side of the telephone, is exclusively intended for the Bluetooth dongle.

C USB socket

D SD/SDHC card slot

E Headset socket

F Receiver socket

G Socket for key extension module

H Power supply socket

Display Elements

The telephone's display has a range of different display elements. The main home screen, with the status information widget, is the starting point for using the telephone and can be customised to suit your particular requirements. The status bar tells the user about the telephone's status at any time. The notification window, which can also be opened via the status bar, displays warnings and other information.

home screens

The main home screen is displayed after the telephone starts up, and any key was pressed. This home screen is the starting point for operating the telephone service using the display. A number of useful display elements, for example the status information widget, are already provided.

To display another home screen, use your fingertip to drag the home screen to the right or to the left.

Five different home screens are available. They are arranged side by side.

You can add apps and widgets to customise your home screens to suit your own particular requirements.

If you have exited a home screen by using the telephone, you can use the navigation keys (home and back keys) to return to it at any time.

Apps and Widgets on the home screens

When the telephone is supplied, some apps and widgets are already present on the main home screen and the left-hand favourites bar.

Displays information (such as the name of the telephone on the default account, the name of the default account, missed calls) and warnings (such as account errors, muted ringtone).

Opens the call log.

Opens the contact list.

Open an overview of all the apps and widgets installed on the telephone.

Opens the browser so you can access the Internet.

Adding Apps and Widgets

You can add apps and widgets to customise your home screens to suit your own particular requirements.

Notes:

The apps and widgets you add to the home screens are only displayed on the home screen to which they were added.

Apps and widgets which you add to the favourite bars are displayed on every home screen.

Proceed as follows:

- Using the telephone

1. Tap on .

2. If necessary, use your fingertip to drag the display to the right to search an app or a widget.

Note: Tap on **APPS** or **WIDGETS** to move quickly between the screens.

3. Touch and hold down the app or the widget.

   Each home screen appears in a separate window.

4. Drag the app or the widget to the window and then release it.

Moving or Deleting Apps and Widgets

To keep the home screens clear and easy to read, you can arrange or delete the apps and widgets.

Proceed as follows:

- Using the telephone

1. Touch and hold the symbol that you want to move or delete.

   The symbol is displayed at the top of the display.

2. Continue to hold the symbol and ...

   - **Move**: ... drag the symbol to the location on the home screen.

     Release the symbol.

   - **Move to another home screen**: ... drag the symbol to the screen margin to toggle between the home screens.

     Release the symbol when you reach the home screen you want.

- **Create folders**: ... quickly drag the symbol to another symbol on the home screen.

  Release the symbol. To rename a folder, tap on its name.

- **Delete**: ... drag the symbol to the symbol at the top of the home screen. The symbol changes to red.

  Release the symbol.

Touch Function Keys on the home screens

Touch function keys

In addition to the programmable function keys with LEDs on the right of the device, you can use the Functions widget to create up to 10 touch function keys on the home screens and the favourites bars.

Notes:

The touch function keys you add to the home screens are only displayed on the home screen to which they were added.

The touch function keys you add to the favourites bars are displayed on every home screen.

The function key assignment option opens automatically when you add the Functions widget to a home screen or a favourites bar. You find more detailed information about setting up and using function keys in the Functions> Function name > Set up and use function key section.

After a touch function key has been assigned, a symbol will appear to identify the selected function. A symbol that is crossed out indicates a function that has been disabled. A luminous, coloured dot on the right under the symbol represents a luminous LED. An animated, coloured dot to the right below the symbol represents a blinking LED.

Tap on the function symbol to run the stored function.

Important: Some functions are only available when used on a PBX. These functions must first be configured in the PBX. It may be necessary to grant permission to use the functions.

The following functions can be assigned to the touch function keys:

Symbol	Function
	TAM announcement
	TAM readiness
	TAM e-mail
	TAM remote access
	TAM automatic call recording
	TAM open
	Call waiting
	Do-not-disturb
	Follow-me

Symbol	Function
	Shared line
	Group
	Group function off
	Group state
	Headset
	InterCom permission
	Ringtone
	Configuration
	MWI
	Pick-up
	Relay
	Calling Line Identity Restriction
	Call forwarding, external number
	Blacklist
	Call fwd. (scr.)
	Call fwd. (scr. in PBX)

Symbol	Function
	Call fwd. (scr.), deactivate all
	Announcement bef. answer
	Door function
	URL
	VMB automatic mode
	VMB readiness
	VMB e-mail
	VMB remote access
	VMB open
	VMB deputy
	VMB message fwd.
	Speed dialling

Status Bar

The status bar at the top of the home screen indicates the state of the telephone at any time.

Left Side and Notification Bar

On the left of the status bar, symbols for current notifications are displayed. In addition to the symbols, an explanation text is displayed in the notification bar.

Touch and hold the status bar and drag it downwards to open it up. Press the **Backspace** key or drag the notification bar upwards to close it again.

Note: If you were having a telephone conversation and, for example pressed the **Home key** to switch to the home screen, you can tap the information text in the notification bar to return to displaying your on-going conversation.

Middle

The calendar week, the date stored in the telephone, and the time are displayed in the middle of the status bar.

- Calendar week: CW and week number, e.g. **CW 9**
- Date: Abbreviation of the weekday, day in the D format and abbreviation of the name of the month, e.g.**Fri. 2. Mar**
- Time: Format: hh:mm, e.g.**11:20**

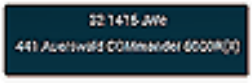
Note: You can set the date and time of the telephone under **> Settings > System > Date & Time**.

Right side

The following system symbols are displayed on the right of the status bar:

Symbol	Function
	Account error: No account or default account not registered.
	Answering machine / voice mailbox switched on
	Answering machine full
	Do-not-disturb enabled
	Call forwarding enabled
	Headset operation enabled
	ringtone off
	Network error
	Power supply error: Insufficient power supply for key extension modules (only COMfortel 2600/3600 IP)
	Screen lock enabled
	Alarm enabled
	Show additional symbols

Status Info

By default, the status info widget  is displayed on the home screen. It displays information (such as the name of the telephone on the default account, the name of the default account, missed calls) and warnings (such as account errors, muted ringtone).

Apps

Apps are application programs which are installed on the telephone. Apps are used to control functions or set up the telephone.

The telephone is delivered with a variety of preinstalled apps. You can download apps from the Internet to add new functions to your telephone.

Important: If you install additional apps, the telephone's functionality may be affected, including loss of use. When the Auerswald service team or specialised dealer checks the telephone, it is reset to its factory settings. This process removes any previously installed applications and data, so these must then be reinstalled separately.

Not every available app is compatible with your telephone. Some apps will only have limited functionality, or cannot be used. This particularly applies to apps which require the following functions, sensors or networks:

- compass
- camera
- accelerometer
- position sensor
- temperature sensor
- air pressure sensor
- humidity sensor
- access to the SIM card
- SMS functionality
- 3G/GSM mobile phone network
- WLAN/WiFi network

Tap on to display all the apps and widgets installed on the telephone.

Setup Assistant

The setup assistant will start automatically the first time the telephone is used.

Note: You can also use the Setup assistant while you are using the telephone. Tap on **> Settings > Setup assistant**, to open the Setup assistant.

Use the Setup assistant to make the following basic settings:

- **With PBX search**: You can search the network for PBXs that could be used as an account.
- **With provider profile**: You can create an account using one of the offered provider profiles.
- **Specify provisioning server**: You can enter the URL of a special provisioning server for automatic configuration with the help of a provisioning file.
- **Manual setup**: This closes the Setup assistant and opens the **Settings** app.
- **Restore backup**: You can select a backup file to restore the configuration and other data.

Telephony App

You can use the telephony app to make telephone calls. The telephony app starts automatically when you begin a telephone conversation.

The toolbar and other elements are displayed on the telephone's display.

Elements

- **Selection window**: The dial window opens when you press the Hook key or the Loudspeaker key, or when the receiver is picked up. In the dial window, you can select the VoIP account and a phone number, or enter them in dial preparation. Additionally, a contact list (internal or external) is displayed from which you can select the subscriber.
- **Business cards**: Any data stored in the contacts for a call partner will be displayed on a business card when a call is incoming, during call preparation, and during the call itself. The active business card also contains information about the duration of the call, the account that was used, and any call forwarding that was completed. The business card of a held call shows the name of the call partner, the duration of the call, and the hold duration.

Notes:

The element that is associated with the toolbar is active.

Elements have various outline colours: green for the active element, light blue for an element that requires attention, and grey for an element that is shown only for information purposes.

Toolbar

The following symbols are displayed for standard functions:

Symbol	Function
	Ends dial preparation.
	Opens the telephone's contacts.

Symbol	Function
	Switches off calling line identity restriction. This symbol will appear when calling line identity restriction is switched on (phone number is not displayed).
	Switches to alphanumerical.
	Switches to numerical.
	Switches on calling line identity restriction. The symbol is displayed if calling line identity restriction is switched off (phone number is displayed).
	Displays the external contact list and dial an external account (external dial tone).
	Shows the internal contact list. Only internal numbers can be dialled.
	Calla the subscriber with the phone number in dial preparation.
	Starts a callback (CCBS and CCNR).
	Adds the phone number to the telephone's contacts.
	Deletes the most recently entered digit.
	Deletes all previously entered digits and dial a new phone number.
	Ends the call.
	Answers the call (hands-free calling mode).

Symbol	Function
	Turns off the ringtone.
	Forwards a call you did not answer (call deflection).
	Forwards a call you did not answer (call deflection).
	Forwards the call to the answering machine.
	Rejects a call.
	Transfers a call.
	Transfers a call.
	Starts a query call.
	Cancels the starting of a query call.
	Connects the active call with the most recently held call.
	Connects the active call with the most recently held call.
	Puts an external call partner into the waiting loop.
	Starts a conference call.
	Connects both conference call partners who are in a three-way call with you and leave the call.

Symbol	Function
	Ends the call with the call partner who joined first (active business card), ending the three-way call.
	Starts a query call with the call partner who joined most recently (active business card), ending the three-way call.
	Ends a three-way call with both partners.
	Picks up a call that is coming in to another internal telephone.
	Picks up a call that is coming in to another internal telephone.
	Terminates the current action.

The following symbols are displayed for door functions:

	Opens the door that is knocking or with which there is an existing call connection.
	Turns the stairwell light on.

All Apps

Tap on to display all the Apps and Widgets installed on the telephone.

Opens the answering machine (optional, see chapter Local Answering machine).

Opens an app to download or update apps from a provisioning server.In the factory settings, the telephone accesses the Auerswald provisioning server via the Internet. For information about available apps contact your system administrator.

Starts an app so you can access the Internet.

Opens an app which synchronises the calendar and your contacts (fee payable for activation see chapter Service and Maintenance > Extending the Telephone Functionality).

View and edit items that were downloaded via the browser.

Starts an app for sending and receiving e-mail.

Opens a selection list in which you can configure or run apps.

Opens a selection list in which you can configure the certain telephone functions.

Important: Some functions are only available when used on a PBX. These functions must first be configured in the PBX. It may be necessary to grant permission to use the functions.

Note: You can configure the structure of the telphones functions. The upper list shows only one of the possible alternatives.

Starts an application for assigning certain functions to the function keys.

Important: Some functions are only available when used on a PBX. These functions must first be configured in the PBX. It may be necessary to grant permission to use the functions.

Starts an application for viewing and managing images.

Starts an app for sending and receiving SIP text messages

Important: Instant Messaging is only available if you are using the COMpact 4000, COMpact 5000/R, COMpact 5200/R, COMpact 5500R and COMmander 6000/R/RX PBXs. The PBX must be running a firmware version as of 6.4A to support this app.

Starts an app for displaying the IP camera on the display (fee payable for activation, see chapter Service and Maintenance > Extending the Telephone Functionality)

Opens the calendar with the overview of events. You can also enter new events or a series of events.

Opens the telephone's contact list and the call log.

Starts an app for listening to and managing music.

Starts the calculator app for performing standard calculations such as addition, subtraction, multiplication, and division

Opens the call log.

Starts an app which displays the time on the display. You can also switch on an alarm clock or use the stopwatch function here

Installing Additional Apps

Installing apps is easy in the App Shop (see Introduction to the Telephone > Apps> All Apps> App Provisioning section).

In the App Shop you can install apps of unknown origin, which you obtained, for example, via the App Shop, from web pages, e-mails or other sources, on your telephone.

Caution: Apps and files downloaded from the Internet may contain viruses which can damage your telephone.

- To protect your telephone and your personal data, we strongly recommend you only download apps and files from trustworthy sources.

Note: Click **> Settings > Device > Apps > Manage apps > All > < app name>** to check, which of your telephone's functions and which personal data an app can access.

To install apps of unknown origin:

1. Go to **> Settings > Personal > Security > Device administration** and click the **Unknown sources** check box.
2. Use the App Shop to install a file manager, e.g. ES File Explorer.

Notes:

File managers can find and install files in *apk format that are stored on the memory card.

You find sources for downloading apps on the Internet under the search string **apk download**. Copy the files (*.apk) from your PC onto the data storage device. Use the file manager installed on the telephone to install the files.

Alternatively you can also search the files with the browser in the telephone, and download them. After you have finished downloading the files, tap on **Downloads** to display them in a list. Then tap on a file to start installing it.

Indroduction to the Operation

The introduction to the operation contains information about the operation of the function keys, the Android keyboard, the entry and selection fields and information about different lists.

Function Keys

The telephones provide 10 (COMfortel 1400 IP) or 15 (COMfortel 2600/ 3600 IP) programmable function keys with LED. This keys can each be defined with two functions (on two levels). In addition, touch function keys can be created on the display and can each be defined with one function.

Up to three COMfortel Xtension300 key extension modules (not included in the scope of delivery) can be attached to the COMfortel 2600/3600 IP to add programmable function keys. The modules are mounted on the right-hand side of the telephone. On each module 30 programmable function keys with LED are available.

Proceed as follows:

- Using the Configuration Manager
- Using the telephone

Using the Configuration Manager to Configure a Function Key

1. Open the page **> Function keys**.

2. Only COMfortel 2600/3600 IP: In the **Key selection** list field, select the key extension module whose keys you want to define.

Note: Only COMfortel 2600/3600 IP: Keys 16 to 105 are not available until you connect COMfortel Xtension300 key extension modules (not included in the scope of delivery) to the telephone.

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3. Via the tabs you can configure the key level of the function key (first or second key level), or if you want to configure a touch function key.

   Note: Not every function supports the configuration of a touch function key.

4. In the list field next to the function key to be defined, select the function.

Note: To change the settings for a function key that already has a function assigned to it, click that key.

   The current settings for the key assignment are shown in the display.

5. In the **Description** entry field, enter a description for the key.

Note: The key description is used for printing the label and for the displaying in the telephone.

---

6. In the **Operation** list field, select one of the following options, if available for the function in question:

   toggle: Press the key to switch the function on or off.

   switch on: Enables the function.

   switch off: Disables the function.

7. In the **Permission level** list field, select one of the following options, if available for the function in question:

   User: The function key can be changed by users, sub-administrators and administrators.

   Sub-administrator: The function key can only be changed by sub-administrators and administrators.

   Administrator: The function key can only be changed by administrators.

Note: Possible further settings are described in the chapter of the corresponding function.

Using the Telephone to Configure a Function Key

1. Tap on **> Function keys**.

2. Press the **function key** you want to define.

   The LEDs of the function keys that are already assigned on one level light up yellow. If a function key is assigned on both levels, the LED is red.

Note: Only COMfortel 2600/3600 IP: Keys 16 to 105 are not available until you connect COMfortel Xtension300 key extension modules (not included in the scope of delivery) to the telephone.

---

3. Tap on the function.

4. In the **Operation** list field, select one of the following options, if available for the function in question:

   toggle: Press the key to switch the function on or off.

   switch on: Enables the function.

   switch off: Disables the function.

5. If available for the function in question, you can,next to entering the number or subscriber, also select one by tapping on .

6. Tap on **Assign**.

7. Tap on **Exit**.

Note: Possible further settings are described in the chapter of the corresponding function.

Android Keyboard (Screen Keyboard)

Use the screen keyboard to can enter text. Some apps open the keyboard automatically. In other apps, you can call the keyboard by tapping on the place where you want to enter the text.

A Touch and hold to enter alternative letters or characters

B Tap to enter letters

C Touch and hold to display input and keyboard settings

D Tap to enter a suggestion

Note: Alternatively you can use the keypad to enter letters. Press a key on the keypad repeatedly to display a series of characters available with that key. The last character to be displayed is the one that is inserted.

Moving the Insertion Point

- Tap on the place where you want to enter the text. The insertion point blinks in the new position and an arrow is displayed under it. Drag the arrow to move the insertion point.

Selecting Text

- Touch and hold or tap twice on the text. The next word is highlighted and an arrow appears at both ends of the selection. Drag the arrows to change the selection. The arrow disappears after a short time. Touch the text once more to display it again.

Deleting Text

- Tap on to delete the selected text or characters before the insertion point.

Entering Capital Letters

- Tap once on the "shift key" to write a letter as a capital letter. Once you have entered the letter, lower case letters are used again.

Activating the Caps Lock Key

- Tap twice on the "shift key" ⇧ or touch and hold down the "shift key", so that the symbol changes to ⇧. Touch the shift key ⇧ again to switch back to lower case letters.

Cutting, Copying, Pasting

- Select the text you want to edit. Tap on **Edit** and select one of the following options:
  - **Select all:** Selects the entire text in the entry field.
  - **Cut:** Cuts the selected text.
  - **Copy:** Copies the selected text.
  - **Paste:** Inserts the copied text at the insertion mark.

Entering Numbers and Special Characters

- Tap on **?123** to input numbers and special characters. To enter other special characters, tap on **=\<**. Tap on **ABC** to return to inputting letters.

Selecting your Language

Go to **> Settings > Personal > Language & input > Keyboard & input methods > Android keyboard > Input languages** to select a number of different languages for the Android keyboard.

Entry and Selection Fields

element	function
Text	An empty entry field normally provides an opportunity for you to enter a name or number. Tap on the entry field and enter the text.
	Notes: Any text already present in the entry field is overwritten by the text you input. Under **> Settings > Personal > Language & input > Personal dictionary** you find a dictionary in which you can enter the words you use frequently. These words can then appear as suggestions when you are entering text.
Text	To change an existing entry, select the entry you want to edit. Tap on **Edit** and select one of the following options: • **Select all**: Selects the entire text in the entry field. • **Cut**: Cuts the selected text. • **Copy**: Copies the selected text. • **Paste**: Inserts the copied text at the insertion mark.
192.168.0.240	To input a network address, tap on the entry field and use the keypad to enter a network address.
Text	Some functions have list fields, in which you can choose from the available options. The selected setting is displayed in the list field. Tap on the list field to display the options.

element	function
	Some functions have radio button,s in which you can choose different settings. The selected setting is marked by coloured dot.
	Tap on an option to enable it. The previous selection is disabled at the same time.
	Use the check boxes to enable or disable the settings and functions. An empty check box means "off", a symbol (e.g. check, X)in th check box means "on".
	Tap on the check box to enable or disable the setting or function.
	Use the sliders to make infinitely variable settings (e.g. volume). The position of the slider identifies where the setting is.
	Drag the slider to the left to reduce the value. Drag the slider to the right to increase the value.
	Use the toggle button to enable or disable the function.
	Drag the toggle button onto "ON" to enable the function.
	Drag the toggle button onto "OFF" to disable the function. Alternatively, tap on "ON" or "OFF" to enable or disable the function.

Lists

Settings and functions are often displayed in the display as lists. Tap on an entry in the list to select a setting or a function.

Note: If the symbol is shown after a table entry, you can tap on the entry to open a dialogue.

Sorting Function Lists

When a function list is visible you can sort it by pressing the Menu key:

- **Sort alphabetically**: The functions are displayed in alphabetical order.
- **Sort by group**: Some functions are brought together to form function groups. The functions and function groups are displayed in alphabetical order. Tap on to display the individual in a functional group so you can select one.

Configuration Manager

The Configuration Manager provides an easy way for you to set up the telephone on your computer. The Configuration Manager can be accessed via the integrated web server in the telephone. The PC you need for doing this must either be connected directly to an Ethernet port on the telephone or be in the same network.

Opening the Configuration Manager

You can open the Configuration Manager using one of the recommended browsers and the telephone's IP address.

To open the Configuration Manager during operation as a system telephone, you must first log in to the telephone. You can log in at the following authority levels:

- Administrator
- Sub-Administrator
- User

Note: As sub sections of the system telephone can be locked by the administrator, it is possible that you cannot make all the settings in the telephone if you register as user or sub-administrator (see Settings> Permissions).

Opening the Configuration Manager when Operating the System Telephone as an Administrator

Requirements:

- PC with min. screen resolution: 1024 x 768
- Recommended browsers: Mozilla Firefox, Google Chrome (current version)
- Telephone is system telephone on the PBX
- Knowledge of the admin password for the PBX
- Knowledge of the telephone's IP address (you can check it on the telephone by selecting **> Settings > Network > Ethernet > IP address**).
- Network connection between the PC and the system telephone

1. Enter the IP address of the telephone in the address field of the browser (for example, **http://192.168.178.4**).
2. Under **Username**, enter the admin username of the PBX.
3. Under **Password** enter the PBX's admin password (8-32 characters).
4. Click **OK**.

Opening the Configuration Manager when Operating the System Telephone as a Sub-Administrator

Requirements:

- PC with min. screen resolution: 1024 x 768
- Recommended browsers: Mozilla Firefox, Google Chrome (current version)
- Telephone is system telephone on the PBX
- Knowledge of a sub-admin password for the PBX
- Knowledge of the telephone's IP address (you can check it on the telephone by selecting **> Settings > Network > Ethernet > IP address**).
- Network connection between the PC and the system telephone

1. Enter the IP address of the telephone in the address field of the browser (for example, **http://192.168.178.4**).
2. Under **Username**, enter the username **sub-admin**.
3. Under **Password** enter the associated **Sub-admin password** (8-32 characters).
4. Click **OK**.

Opening the Configuration Manager when Operating the System Telephone as a User

Requirements:

- PC with min. screen resolution: 1024 x 768
- Recommended browsers: Mozilla Firefox, Google Chrome (current version)
- Telephone is system telephone on the PBX
- Knowledge of the user password for the PBX
- Knowledge of the telephone's IP address (you can check it on the telephone by selecting **> Settings > Network > Ethernet > IP address**).
- Network connection between the PC and the system telephone

1. Enter the IP address of the telephone in the address field of the browser (for example, **http://192.168.178.4**).
2. Under **Username**, enter the internal number of the telephone.
3. Under **Password** enter the associated **User password** (8-32 characters).

Note: If no user password has been entered in the PBX, leave this field empty.

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4. Click **OK**.

Opening the Configuration Manager when Operating as a Standard VoIP Telephone

Requirements:

- PC with min. screen resolution: 1024 x 768
- Recommended browsers: Mozilla Firefox, Google Chrome (current version)
- Network connection between the PC and the telephone
- Knowledge of the telephone's IP address (you can check it on the telephone by selecting **> Settings > Network > Ethernet > IP address**).

1. Enter the IP address of the telephone in the address field of the browser (for example, **http://192.168.178.4**).

   The login window opens.

   Note: If you start the Configuration Manager for the first time, a dialogue box opens in the first step. This is where you specify the user name and the user password. Enter the data (32 characters, letters and numbers).

   ---

2. Under **Username**, enter the username of the telephone.
3. Under **Password**, enter the user password.
4. Click **OK**.

Notes for Using the Configuration Manager

The notes for using the Configuration Manager include the following topics:

- Navigation
- Logging Out
- Entry list and selection fields
- Creating, deleting, searching for, and sorting table entries
- Symbols
- Appearance/Legibility

Navigation

The Configuration Manager is divided into several areas:

Horizontal Navigation Bar

You can use the horizontal navigation bar to show or hide the **Navigation** area. The navigation area contains the **Help** area.

Use the **Logout** button in the horizontal navigation bar to log out from the Configuration Manager.

Navigation area

If the navigation area is shown, a vertical directory tree is displayed under **Navigation**. Most topics are consolidated under a main topic ( ) to help you identify them. To select the topic or main topic, simply click it. If sub-topics are available, open the list by clicking on it, or on the plus character in front of the main topic. Then click the topic ( ) to select it.

The topic you have chosen opens to the right, on the screen.

Click the or button to open or close the directory tree completely.

A vertical line separates the **Navigation** area (with the directory tree) and the selected screen. To enlarge the area, click and hold the cursor above the separator line and slide the line to the location (automatically makes the other areas smaller).

Click the buttons (e.g. **View**, **Configure**) on the selected screen to open subsequent screens that are not listed in the tree. To return to the home screen, click **back**.

On some screens you can select sub-topics directly by clicking on tabs. The active tab is marked in a different colour.

Help Area

The **Help** area with links to a variety of help topics is located at the bottom of the **Navigation** area. This is where you see the help topics that are relevant to the configuration page which is currently open (see Introduction to the Configuration Manager > Help).

Note: The **Help** area can be displayed or hidden.

Logging Out

The **Logout** button is located in the horizontal navigation bar. Click **Logout** to log out of the Configuration Manager.

Entry, List, and Selection Fields

Important: Any settings you make in the screens with the fields described below must be saved before you leave these screens. To save your settings, click **Save**.

Note: The images/symbols shown below will vary depending on the browser and operating system.

Element	Function
	An empty field normally provides an opportunity to enter a name or value. Click in the entry field and enter the text. The following characters must not be used: • " quotation marks • $ dollar sign • % percent sign • < pointy bracket - smaller than • > pointy bracket - higher than • \ backslash • ^ caret • [ ] square brackets • { } curly brackets
	Some functions have list fields in which you can choose from the available options. The selected setting is displayed in the list field. Click the list field to display the options.

Element	Function
	For some functions, radio buttons are available, in which you can choose different settings. The selected setting is marked by coloured dot. Click an option to enable it. The previous selection is disabled at the same time.
	Use the check boxes to enable or disable the settings and functions. An empty check box means "off", a symbol (e.g. check, X) in the check box means "on". Click to jump to the check box.
	Use the sliders to make infinitely variable settings (e.g. volume). The position of the slider identifies where the setting is. Drag the slider to the left to reduce the value. Drag the slider to the right to increase the value.

Creating, Deleting, Searching for, and Sorting Table Entries

The Configuration Manager displays the lists in table format across multiple screens. Only table rows containing data are shown. A list can be expanded or shortened.

Creating Entries

1. Click **New**.
   One line is added to the list.
2. Fill in the empty entry fields.
3. Click **Save**.
   The new entry will be added to the list.

4. Repeat steps 1 to 3 to create additional entries.

Note: If you want to create multiple entries simultaneously, enter the range in the **From** and **To** entry fields, and then click **Save**.

Deleting Entries

1. Click in the line of the entry that you wish to delete.

   The entry will be highlighted.

Note: To select several consecutive entries, click the first and last entry while holding the Shift key down. To select several non-consecutive entries, click each required entry while holding the Ctrl key down.

---

2. Click **Delete** and confirm the dialogue with **Yes**.

Searching For Entries

1. Click in the open field in the header of the column that you wish to search, such as **Number** or **Name**.
2. Enter a search term.

   If, for example, you are searching for a name, and enter the letter M, all the entries that match this criteria will be displayed automatically. If you enter "Ma", the results will be narrowed down to the relevant entries.

Sorting Entries

Tables can be sorted according to the contents of individual columns.

- Click a column header.

  An arrow will appear next to the column header:

- ▲ The table will be sorted according to the entries in the relevant column in ascending order.
- ▼ The table will be sorted according to the entries in the relevant column in descending order.

Notes:

To reverse the sorting sequence, click the column heading again.

If no arrow appears, this means the column cannot be used as a sorting criteria.

Symbols

Lower Toolbar in the Configuration Manager

Element	Function
	New: Add sa blank table row.
	Save: Saves changes.
	Delete: Deletes the selected entries.
	Back: Returns to the previous configuration page.
	Print: Prints the function key label. Set the print format on landscape and the printing scale on 100 %. Alternatively, you can save the document and print it with PDF Viewer.

Configuration Pages

Element	Function
	Opens the help screen for the corresponding setting point. Place the cursor over the symbol to see information about the associated help topic (tooltip).
	Closes the dialogue without saving.

Horizontal Navigation Bar

Element	Function
	Logs out from the Configuration Manager.
	Opens the entire directory tree. This also saves the directory tree's old state.
	Restores the directory tree to state it had before the last time it was opened or closed completely.
	Closes the entire directory tree. This also saves the directory tree's old state.

Presentation/Legibility

The presentation/legibility of the Configuration Manager can be affected by browser settings, e.g.:

- Scale/zoom browsers (e.g. hold down Ctrl + scroll (mouse wheel))

Note: If the Configuration Manager is not legible because of scaling/ zooming of the browser, you can restore the original view (e.g. Mozilla Firefox under **View> Zoom> Normal**).

Settings Configuration Manager Configuration Manager

Proceed as follows:

- Using the Configuration Manager (page **Settings > COMfortel > Configuration Manager**)

Configuration Manager

Language

Select the languge for the Configuration Manager.

Automatically save

Changes will immediately be adopted. Clicking on **Save** is then no longer necessary.

Username (SIP account)

Requirements:

- The telephone is not a system telephone on the PBX

Important: If operated as a system telephone on the PBX, the PBX specifies the username for the Configuration Manager. The username corresponds to the username entered in the PBX. The username cannot be entered manually.

Freely selectable username.

Password (SIP account)

Requirements:

- The telephone is not a system telephone on the PBX

Important: If operated as a system telephone on the PBX, the PBX specifies the password for the Configuration manager. The password matches the password you input in the PBX. The password cannot be entered manually.

Enter the password provided from the SIP provider. Repeat the password in the entry field **Password (Repeat entry)**.

Edit password (SIP account)

Requirements:

- The telephone is not a system telephone on the PBX

Important: If operated as a system telephone on the PBX, the PBX specifies the password for the Configuration Manager. The password matches the password you input in the PBX. The password cannot be deleted manually.

Edit the password in the entry fields **Password** and **Password (Repeat entry)**.

Settings Telephone Configuration Manager

Proceed as follows:

- Using the telephone (page **> Settings > COMfortel > More > Configuration Manager**)

Configuration Manager

Configuration Manager on/off

Configuration Manager ☑ ☐

Requirements:

- If the Configuration Manager is secured with a password, it must be entered for the user under **> Settings >** Menu **> Change permission level**.

☐ The Configuration Manager is disabled.

☑ ☐ **Automatically save**

☑ Changes will immediately be adopted. Clicking on **Save** is then no longer necessary.

Delete Configuration Manager password (SIP account)

Requirements:

- The telephone is not a system telephone on the PBX

Caution: Deleting password leaves the Configuration Manager vulnerable to attacks from the Internet.

- For this reason, it is vital you use a password to protect your telephone and your personal data.

Important: If operated as a system telephone on the PBX, the PBX specifies the password for the Configuration Manager. The password matches the password you input in the PBX. The password cannot be deleted manually.

Delete the password.

Username (SIP account)

Requirements:

- The telephone is not a system telephone on the PBX

Important: If operated as a system telephone on the PBX, the PBX specifies the username for the Configuration Manager. The username corresponds to the username entered in the PBX. The username cannot be entered manually.

Freely selectable username.

Password (SIP account)

Requirements:

- The telephone is not a system telephone on the PBX

Important: If operated as a system telephone on the PBX, the PBX specifies the password for the Configuration manager. The password matches the password you input in the PBX. The password cannot be entered manually.

Enter the password provided from the SIP provider. Repeat the password in the entry field **Password (Repeat entry)**.

Help

Use the Help to access the telephone's Advanced Information.

Opening Help

The **Help** area with links to a variety of help topics is located below the **Navigation** area. Help topics related to the currently open configuration page are provided.

At many setting points, the ? symbol is located next to the text for the entry or list fields, radio buttons, or check boxes. If you use the cursor to point on a symbol, you see an information text with the accompanying help topic (tool tip). Click the symbol to open the associated help topic.

- Click the help link in the **Help** navigation bar or click ? next to the corresponding setting point.

Navigating via the Table of Contents

Click the **Contents** tab (this text may have a different name in some browsers) to go to the Table of Contents (the tab will be highlighted in yellow).

The Table of Contents will be displayed on the left-hand side of the help window as a directory tree.

By clicking on one of the topics in the Table of Contents you can open the help screen associated with it on the right-hand side of the help window.

The symbol indicates that additional topics are available under a specific topic. Click this symbol to expand the sub-topics. You can close the sub-topics again by clicking on the symbol.

Notes:

The Index area and the selected screen are separated by a vertical line or a scroll bar. To enlarge one of the areas (automatically makes the other areas smaller), click and hold the cursor above the separator line and slide the line to the location you want. This setting will only apply to the help window that is currently open.

The currently opened topic may be highlighted in the Table of Contents (for example, with a grey background). Scrolling through the Table of Contents may cause this highlighting to disappear. Click in the help window to display the currently open help screen in the Table of Contents.

Navigation using expanding texts

Some help texts contain expanding texts. Expanding text is indicated by a blue font and is underlined. In addition, the symbol appears after the expanding text.

You can expand the text by clicking or the line. Click or the line again to close the text.

Navigating via the Index

Click the **Index** tab (this text may have a different name in some browsers) to go to the index (the tab is highlighted in yellow).

The index will be displayed on the left-hand side of the help window.

Click a letter of the alphabet to go directly to the keywords under that letter.

Click a keyword to open the associated help screen on the right-hand side of the help window.

Notes:

The index area and the selected screen are separated by a vertical line or a scroll bar. To enlarge one of the areas (automatically makes the other areas smaller), click and hold the cursor above the separator line and slide the line to the location you want. This setting will only apply to the help window that is currently open.

Click the symbol in the help window to display the currently open help screen in the Table of Contents.

Navigating by Scrolling

Click to go to the next screen of the Instructions.

Click to go to the previous screen of the Instructions.

Navigating with the Back Key

Click to go back to the previously opened help screen.

Note: You may have to scroll back to the top of the current help screen to access the symbol.

Navigating via Links

Some help texts contain links to sub-topics or to more detailed information. Links are in blue font and underlined.

Click a link to go to the corresponding help screen.

Navigating via Breadcrumbs

The path to get to the currently open screen is displayed above the help text. The path consists of the topic titles behind which the corresponding topic is hidden. The higher-level topics are displayed in a blue font and the current topic is displayed in a grey font.

By clicking a higher-level topic you can go to the corresponding help screen.

Searching in Help

You can search the help screens for one or more terms.

1. Click the **Search** tab (this text may have a different name in some browsers).

   The tab is enabled (highlighted in yellow). The left-hand area of the help window contains an entry field for the keywords and a button for starting the search.

2. Enter the term in the entry field.

Notes:

The character * can be used as a wildcard in a search. For example, a search using "teleph*" will return hits for "telephone", "telephone book", "telephoning", and other terms that begin with "teleph".

If you enter several terms, the help texts which contain all these keywords will be displayed irrespective of the sequence and context.

3. Click **Search** (this text may have a different name in some browsers).

   The help is being searched. This may take some time. When completed, the topics that contain the search term are listed. The sequence within this list is determined by the number of hits and the importance of the search term found. The higher the value displayed under **In %**, the more important the help text is to the search.

4. Click the title in the list.

   The corresponding help screen opens on the right-hand side of the help window.

Notes:

Some browsers also mark the found places within the Help text.

The search area and the selected screen are separated by a vertical line or a scroll bar. To enlarge one of the areas (automatically makes the other areas smaller), click and hold the cursor above the separator line and slide the line to the location you want. This setting will only apply to the help window that is currently open.

Click the symbol in the help window to display the currently open help screen in the Table of Contents.

Printing from within the Help

You can print the currently displayed help screen using the help print function.

Notes:

If the displayed help screen includes texts that can be expanded, expand all the texts you want to print.

If you only want to print part of the displayed help screen, mark the relevant text by clicking and drawing with the left-hand mouse button. Afterwards, select **Selection** as the print area in the print dialogue box.

---

1. In the help window, click the symbol.
2. Select the printer.
3. Click **Print**.

Icons in the Help Window

	Returns to the previously opened help screen.
	Moves to the next screen of the Instructions.
	Returns to the previous screen of the Instructions.
	Displays the current help screen in the Table of Contents.
	Display: Expandable text is closed. Click the symbol or line to expand the text.

	Display: Expandable text is expanded. Click the symbol or line to hide the text.
	Click the symbol to open the print dialogue box.
	Display: Sub-topics are closed. Click the symbol to open the sub-topics.
	Display: Sub-topics are shown. Click the symbol to close the sub-topics.
	Display: The topic does not have any sub-topics. Click the symbol to open the corresponding help screen.

Telephoning

This section describes the different ways in which you can use the telephone to make telephone calls.

Important: The functions described in these instructions have been tested on devices operating as system telephones on PBXs. If the telephone is operated on other VoIP PBXs or VoIP providers, functionality may be partially or completely restricted.

Topics

– Incoming Calls (page 96)
– Call Waiting Calls (page 101)
– Outgoing Calls (page 105)
– Call (page 114)
– Query Call (page 117)
– Transferring (page 122)
– Conference Call (page 128)
– Hands-Free Calling (page 132)
– Loudspeaker Listening (page 135)
– Headset Call (page 137)

Incoming Calls

Incoming calls are divided into the following call types:

- Alarm calls
- External calls
- Internal calls
- Group calling (a call made to a specific group)
- InterCom calls
- External callbacks
- Internal callbacks
- Door calls
- Call deblockers (calls enabled despite do-not-disturb)
- Wake-up calls
- Other calls

Options during an Incoming Call

During an incoming call, the following actions are possible:

Accepting An Incoming Call

If you receive a call and want to to talk with the caller, you can accept the incoming call as you would normally by picking up the receiver.

Rejecting An Incoming Call

If you receive a call but you do not want to talk to the caller, you can reject the incoming call. The caller receives a busy signal, assuming no other telephones are called (for example, in a group call).

Forwarding Incoming Calls

If you receive a call but you do not want to talk to the caller yourself, you can then forward the incoming call to any internal or external destination number.

Putting a Caller On Hold

If you receive a call but want to to postpone accepting the call, you can put the incoming call on hold. The caller hears the on-hold music.

Disabling the Ringer

If you receive a call but want to to postpone accepting the call, you can switch off the ringer. The call will continue to try to get through and you can accept it at any time.

Additional Options

– Forwarding a Caller to the Answering Machine (page 318)

Accepting an Incoming Call

When you receive a call, proceed as follows:

- Pick up the receiver or tap on .

  You will be connected with the caller.

Notes:

If you are not present, on a particular occasion, or cannot accept a call for another reason, the caller's number is saved in the caller list (provided that the phone number is available and the call type is saved in the caller list).

Calls made from the telephone or from the PBX (wake-up calls, alarm calls, door calls) are displayed in plain text and can be confirmed by tapping on (alarm calls are not confirmed until you pick up the receiver).

Rejecting an Incoming Call

When you receive a call, proceed as follows:

- Tap on .

  The caller receives a busy signal, assuming no other telephones are called (for example, in a group call).

Putting a Caller On Hold

When you receive a call, proceed as follows:

1. Pick up the receiver or tap on .
2. Tap on .

   You will hear the internal dial tone. The caller on hold hears the on-hold music.
3. Tap on .

   The connection to the caller is being reestablished.

Forwarding Incoming Calls

When you receive a call, proceed as follows:

1. Tap on .
2. Enter the destination number or select the VoIP account and phone number in the dial window.

Important: Enter phone numbers exactly as when dialling, for example, always enter external numbers with a leading exchange line access number. In the factory settings, the PBX's exchange line access number is "0", but it can be changed in some PBXs (refer to the Advanced Information for the PBX).

Note: Tap on to forward the call to the answering machine.

3. Tap on .

   The subscriber is called.

Note: If the destination number is saved on the programmable function key (speed dialling key), you can forward the call by simply pressing this key and then tapping on . You no longer need to select the function in advance via the display.

Call Waiting Calls

During a call, you are notified of another call (external or internal subscriber, alarm or someone at the door) by a call waiting tone (tone and/or notification on the display).

Options during a Call Waiting Call

During a call waiting call, you can:

Reject a Call Waiting Call

If you receive another call while you are already making a call, and you do not want to speak with the second caller, or you do not want to interrupt the first call, you can reject the call waiting call. The caller receives a busy signal, assuming no other telephones are called (for example, in a group call).

Accept a Call Waiting Call

If you receive another call while you are already making a call, and you want to speak to the second caller, or you want to end the current call, you can accept the call waiting call. After accepting, you will be connected with the other caller. Your previous call partner hears the on-hold music.

Forward a Call Waiting Call

If you receive another call while you are already on a call and personally do not want to talk with the second caller, or you do not want to interrupt the current call, you can forward the call waiting call to any internal or external destination number.

Switch Off the Call Waiting Tone

If you receive another call while you are already on a call, but you want to postpone accepting the second call, you can switch off the audible indication. The second call will continue to try to get through and you can accept it at any time.

Rejecting a Call Waiting Call

Requirements:

- Call waiting must be enabled

If a call waiting call is signalled, proceed as follows:

- Tap on .

  The caller receives a busy signal, assuming no other telephones are called (for example, in a group call).

Accepting a Call Waiting Call

Requirements:

- Call waiting must be enabled

If a call waiting call is signalled, proceed as follows:

- Tap on the caller's business card or tap on .

  You will be connected with the caller. Your previous call partner hears the on-hold music.

Note: If you first hang up the receiver to end the current call, your telephone will ring and you can accept the incoming call as you would normally.

Forwarding a Call Waiting Call

Requirements:

- Call waiting must be enabled

If a call waiting call is signalled, proceed as follows:

1. Tap on .
2. Enter the destination number or select the VoIP account and phone number in the dial window.

Important: Enter phone numbers exactly as when dialling, for example, always enter external numbers with a leading exchange line access number. In the factory settings, the PBX's exchange line access number is "0", but it can be changed in some PBXs (refer to the Advanced Information for the PBX).

3. Tap on .

   The subscriber is called.

Note: If the destination number is saved on the programmable function key (speed dialling key), you can forward the call by simply pressing this key and then tapping on . You no longer need to select the function in advance via the display.

Switching Off the Call Waiting Tone

Requirements:

- Call waiting must be enabled

If a call waiting call is signalled, proceed as follows:

- Tap on .

  The second call will continue to try to get through and you can accept it at any time.

Outgoing Calls

Outgoing calls are calls that you have initiated yourself.

Options for Outgoing Calls

An outgoing call can be initiated in two ways:

Dialling the Telephone Number

If you have already picked up the receiver before dialling, the phone number you have entered will be dialled after approx. 5 seconds.

Note: To speed up the dialling process, after entering the last digit, press the receiver key or the flashing receiver symbol on the display.

Dialling a Telephone Number with Dial Preparation

Dial preparation – first dialling and then picking up the receiver – enables you to check the phone number you entered and, if necessary, correct it before the connection is established.

Initiating an External Call with Calling Line Identity Restriction

If you do not want the person you are calling to see your phone number, you can use Calling Line Identity Restriction.

Additional Options

- Initiating Targeted Exchange Line Access (page 200)
- Dialling from the Contacts (page 143)
- Dialling from Within the Caller List (page 172)
- Dialling from the Call Log (page 165)
- Dialling from Within the Redial List (page 162)

Picking up Receiver and Dialling Telephone Number

1. Pick up the receiver or press the **hook** key.
2. Dial a phone number:
   - Manual entry: Enter the phone number manually.

Important: Enter phone numbers exactly as when dialling, for example, always enter external numbers with a leading exchange line access number. In the factory settings, the PBX's exchange line access number is "0", but it can be changed in some PBXs (refer to the Advanced Information for the PBX).

Notes:

When dialling through a standard SIP account, you can prevent the local area code from being output automatically by entering a leading "#" and thereby reach the VoIP provider's voice mailbox, for example.

As soon as you have dialled the first digit, you can cancel or restart the selection by tapping on 000...?, or delete the most recently entered digit by tapping on .

- Selection: In the dial window, select the VoIP account and a phone number.

Note: Tap on to display the external contact list and select an external account (exchange line). Tap on to display the internal contact list. Only internal numbers can be dialled.

Once you have finished dialling the phone number, the subscriber will be called.

Dialling a Telephone Number with Dial Preparation

1. Dial a phone number.

Important: Enter phone numbers exactly as when dialling, for example, always enter external numbers with a leading exchange line access number. In the factory settings, the PBX's exchange line access number is "0", but it can be changed in some PBXs (refer to the instructions for the PBX).

Instead of a phone number, you can make an alphanumerical input. Therefore, pick up the receiver and tap on 123 abc . You must enter the user part of the SIP-URI. The user part is the character string in front if the @ character.

Notes:

When dialling through a standard SIP account, you can prevent the local area code from being output automatically by entering a leading "#" and thereby reach the VoIP provider's voice mailbox, for example.

2. Pick up the receiver or tap on .

Note: If you want to exit dial preparation without dialling the entered phone number, tap on .

Initiating an External Call with Calling Line Identity Restriction

Requirements:

- CLIR 2 service feature (case by case suppression of the phone number display) enabled by the network provider)
- Calling number presentation must be enabled on the PBX

1. Pick up the receiver or tap on .
2. Tap on .

   The display will show to indicate that Calling Line Identity Restriction has been enabled.
3. Dial a phone number (an external number with an exchange line access number).

   Once you have finished dialling the phone number, the subscriber will be called.

Calling Line Identity Restriction will be disabled as soon as you have ended the call.

Note: If an emergency number is called while calling line identity restriction is enabled, calling line identity restriction is disabled so that the emergency service can identify the caller.

Options for Unsuccessful Calls

The following options are available for unsuccessful calls:

Initiating Callback When Line is Busy

If you cannot get through to a busy subscriber despite repeated attempts, you can initiate a callback on busy. This function is available for internal calls.

If you have initiated a callback, the PBX will call you as soon as the other subscriber has hung up the receiver at the end of their current call. If you then pick up the receiver, the other subscriber will be called. If the other subscriber picks up the receiver, the connection for the call will be established. The callback procedure in the PBX is then deleted.

Initiating Callback on No Reply

If the subscriber being called does not pick up the receiver, you can initiate "callback on no reply" to reach this subscriber without having to call them repeatedly. This function is available for internal calls.

If you have initiated a callback, as soon as the other subscriber has hung up the receiver to end the call, the PBX will call you. If you then pick up the receiver, the other subscriber will be called. If the other subscriber picks up the receiver, the connection for the call will be established. The callback procedure in the PBX is then deleted.

Note: Callback is not possible in certain situations, such as when calling an external number, when a public exchange is involved, or during a provider transition. In this case, use the power dialling function.

Initiating a Priority Call when Do-Not-Disturb is Enabled

If it is essential that you reach a person (in emergencies), the do-not-disturb function can be circumvented by a priority call from an internal telephone.

Additional Options

– Power Dialling (page 237)

Initiating Callback when Line is Busy

Requirements:

- Both telephones must be connected to the same PBX.

If the connection you are calling is busy, proceed as follows:

Note: Use the Power Dialling function to retry a busy external connection.

---

1. Tap on .

   If callback is configured, you will see the message **Call completion activated**.

2. Hang up the receiver.

   As soon as the connection is no longer busy, the PBX will attempt to call you for 20 seconds.

3. Pick up the receiver to make the callback.

Notes:

If you do not pick up the receiver within the 20 seconds that the PBX calls you, the callback instruction will be deleted.

If you want to cancel the callback, tap on .

If you pick up the receiver, the subscriber will be called.

Note: A callback will be stored in the PBX for up to 45 minutes. If the called subscriber has not yet finished their call, the callback will be deleted automatically.

Initiating Callback on No Reply

Requirements:

- Both telephones must be connected to the same PBX.

If no one answers on the connection you are calling, proceed as follows:

1. Tap on .

   If callback is configured, you will see the message **Call completion activated**.

2. Hang up the receiver.

   As soon as the connection has been occupied, the PBX will call you back for 30 seconds.

3. Pick up the receiver to make the callback.

Notes:

If you do not pick up the receiver within the 30 seconds when the PBX calls you, the callback instruction will be deleted.

If you want to cancel the callback, tap on .

If you pick up the receiver, the subscriber will be called.

Initiating a Priority Call when Do-Not-Disturb is Enabled

Requirements:

- Do-not-disturb type **all (PBX)** selected at the call recipient

If the internal telephone you are trying to call is busy because it is set to do-not-disturb, proceed as follows:

- Wait 10 seconds.

Call

You can use the system telephone to make internal and external calls on the PBX.

Options during a Call

During a call, you can:

Retrieve Information About a Call

During a call, you see information about the call and your call partner on the display, as well as general time information (date, time, calendar week, weekday).

Sending DTMF Signals

During an existing connection you can use the keypad to send DTMF signals (sounds used in multi-frequency dialling) to operate an answering machine remotely, for example. The dialled digits are shown on the display.

Mute

If you want to discuss something with another person in the room without your call partner on the telephone being able to hear, you can temporarily mute the call.

Additional Options

– Initiating a Query Call (page 117)

- Transferring (page 122)
- Pick-Up During a Call (page 234)
- Recording a Call (page 327)

Information about a Call

During a call, you see information about the call and your call partner on the display, as well as general time information (date, time, calendar week, weekday).

Sending DTMF Signals

During a call, proceed as follows:

- Enter the numbers and characters.

  The numbers and characters dialled are shown on the display for a few seconds and you hear the corresponding sounds.

Muting a Call

During a call, proceed as follows:

1. Press the **Microphone** key.

   This switches off the microphone on the receiver, device, or headset, that is currently active. The LED on the key blinks red.

2. To switch the microphone on again, press the **Microphone** key again.

Ending a Call

When your call partner ends the call, your telephone goes into idle state. If you do not hang up the receiver, you will hear the busy signal through the base unit loudspeaker (only if the receiver was hung up incorrectly).

During a call, proceed as follows:

- Hang up the receiver.

Note: If you want to end the current call, and then immediately make a new call, tap on instead, and start dialling the next number within 10 seconds.

Query Call

During a query call you are talking with one subscriber while your previous call partner is on hold on the PBX in the background (on-hold music is playing).

The telephone supports 10 call channels, two of which may be active simultaneously. When the channels in the telephone are put on hold on the PBX, they become inactive, so up to nine calls may be on hold in addition to one active call.

A query call is initiated either by calling a query call subscriber, by picking up during a call, or by accepting a call signalled by the audible indication.

Initiating a Query Call

During a call, proceed as follows:

1. Tap on R.

   You will hear the internal dial tone. Your current call partner is kept on hold in the PBX (on-hold music playing).

   Note: Initiating the query call may switch off a previously initiated (manually or automatically) call recording.

2. Enter the destination number or select the VoIP account and phone number in the dial window.

Important: Enter phone numbers exactly as when dialling, for example, always enter external numbers with a leading exchange line access number.

The subscriber is called.

Notes:

If the phone number of the query call subscriber is listed in the telephone's telephone book, you can initiate a query call by dialling directly from the telephone book (without first tapping on R).

If the phone number of the query call subscriber is saved on one of the programmable function keys (speed dialling key), you can initiate the query call by simply pressing this key (without first tapping on R).

Ending a Query Call

If you make a query call, and the number is busy, or there is no response, proceed as follows:

Important: Do not hang up the receiver (this will disconnect any calls waiting in the background or initiate an unannounced transfer of the call to another internal telephone).

- Tap on R.

Note: If you want to try this with a different phone number, tap on 000...?. You can then dial a new phone number without having to explain the repeated attempt to the person waiting on the other line.

You are now reconnected with the call partner waiting on the other line.

Options during a Query Call

The following actions are possible during a query call:

Transferring

You can use the transfer function to alternate between the call partners.

Ending One of the Two Calls

When you end a query call and want to to continue talking with one of the call partners, you can end the call with the other call partner separately. Alternatively, one of the call partners can simply hang up so that you can continue talking with the other call partner.

Connecting the Other Two Call Partners to Each Other

If you want to let your call partners speak with each other, you can connect them.

Toggling Between Conversations

During a query call, proceed as follows:

- Tap on the business card of the call partner to whom you want to switch.

  The business card of the active call partner is connected to the toolbar.

  You continue to make a query call. The other call partner is now active.

Ending One of the Two Calls

Requirements:

- Initiated query call

If one of the two call partners hangs up the receiver, you remain connected with the other one.

Or proceed as follows during a query call.

1. Tap on the business card of the call partner with whom you want to end the conversation.

   The business card of the active call partner is connected to the toolbar.

2. Tap on .

   You will then have a one-to-one call with the call partner who had previously been on hold.

Connecting Both Communication Partners

Requirements:

- Initiated query call
- to connect two external call partners: **Transfer of external calls to external** permission granted in the PBX.

To connect two call partners to each other, hang up the receiver during a query call.

Alternatively, proceed as follows:

- Tap on .

  The two call partners are connected with each other.

Transferring

A call partner can be transferred (connected) to an internal or external subscriber.

Options for Transferring a Call

During a call, the following options are available for transferring a call:

Transferring with Announcement

To transfer a call, first initiate a query call, announce the call and connect both call partners.

Transferring without Announcement

If you want to transfer an external call partner to another internal subscriber, you do not have to wait until the subscriber being called via the query call accepts the call; you can hang up the receiver while this call is being made. The call to the internal subscriber will continue.

Placing External Call Partner in Waiting Loop

If the internal subscriber to which you want to transfer an external call partner is busy, you can place the external call partner in the waiting loop of this subscriber.

Note: If, for example, you have accepted a call signalled by call waiting and have therefore established a query call, you can place this call in the

waiting loop in the same manner. The call partner to be transferred must be the active call partner.

Calling a Third Internal Subscriber and Transferring This Subscriber To an Active Call Partner

This assumes that you have gained an additional call partner from a call, e. g. by accepting a call signalled by call waiting, and this second call partner would now like to be transferred to somebody else. You can now initiate a third call that connects the second and third call partners with each other and then continue telephoning with your first call partner.

Transferring with Announcement

Requirements:

- Initiated query call
- to connect two external call partners: **Transfer of external calls to external** permission granted in the PBX.

During a query call, proceed as follows:

- Tap on .

  The two call partners are connected with each other.

Transferring without Announcement

Requirements:

- Internal transfer destination

During a call, proceed as follows:

1. Tap on

.

   You will hear the internal dial tone. Your current call partner is kept on hold in the PBX (on-hold music playing).

2. Dial an internal number.

3. Tap on .

   The subscriber is called.

4. Put down the receiver.

   The call to the internal subscriber will continue. If the subscriber accepts the call, the connection is established.

   If the subscriber being called does not accept the call, the call is transferred back to your telephone 60 seconds later (your telephone rings).

Note: To perform **call parking**, dial the internal base phone number + park position and hang up instead of dialling the internal number (refer to the Advanced Information for the PBX). To make this operation more convenient, you can save the internal base phone number + park position on one or more programmable function keys (speed dialling key). The LEDs for the speed dialling keys then indicate whether a park position is available or busy.

Placing Call Partner in Waiting Loop

Requirements:

- Internal transfer destination
- Telephone is a system telephone on the PBX or placing in the waiting loop is performed on the PBX for which the sequence **##07** has been entered under **Settings > Providers & PBXs > Name of Provider/PBX > Special numbers > Keypad sequence for waiting loop**.

Note: With some PBXs the function is limited to external callers (see Advanced Information of the PBX).

If the internal telephone to which you are trying to transfer a call is busy, proceed as follows:

1. Tap on .
2. Put down the receiver.

   The call partner continues to listen to the on-hold music.

   As soon as the internal subscriber hangs up the receiver, this communication partner is called. Once they accept the call, they are connected with the subscriber in the waiting loop.

Notes:

If the internal subscriber does not answer the call within 60 seconds, or the line remains busy during the three minute waiting time, the call will be transferred back to you.

If you pick up the receiver, you will be reconnected with the call partner. You can then place them in the waiting loop again. If you do not pick up the call within 60 seconds, the connection is disconnected completely (for example, even if your line was only busy for a brief period).

Calling a 3rd Internal Subscriber and Transferring them to an Active Call Partner

Requirements:

- Initiated query call

During a query call, proceed as follows:

1. Tap on the business card of the call partner whom you want to transfer.

   The business card of the active call partner is connected to the toolbar.

2. Tap on R.

3. Dial the phone number of the subscriber to be called.

   As soon as the subscriber being called picks up the receiver, you will have a third call.

Important: Enter phone numbers exactly as when dialling, for example, always enter external numbers with a leading exchange line access number.

---

4. Tap on .

Both previously active call partners are connected.

You then return to an individual call with your first call partner.

Conference Call

During a conference call you are talking with two subscribers at once.

Initiating Conference Calls

Requirements:

- A query call that you initiated yourself

During a query call, proceed as follows:

- Tap on .

Options during a Conference Call

The following actions are possible during a conference call:

Initiating Transferring

When you end a conference call, and want to to talk to each of the conference call partners separately one after the other, you can put one of the conference call partners on hold in the background.

Ending a Call With One of the Conference Call Partners

When you end a conference call, but want to to continue talking with one of the conference call partners, you can end the call with the other conference call partner. Or, one of the call partners can simply hang up so you can continue talking with the other conference call partner alone.

Connecting the Other Two Conference Call Partners to Each Other

If you want to leave a conference call that you initiated, but your conference call partners want to to continue talking with each other, you can connect the two parties with each other.

Ending a Conference Call Completely

If you initiated the conference call, you can end the conference call completely.

Initiating Toggling Between Conversations during a Conference Call

Requirements:

- Initiated conference call

During a conference call, proceed as follows:

1. Tap on the business card of the call partner to whom you want to switch.
2. Tap on R .

The business card of the active call partner is connected to the toolbar.

Ending a Call With One of the Conference Call Partners

Requirements:

- Initiated conference call

During a conference call, proceed as follows:

1. Tap on the business card of the call partner with whom you want to end the conversation.
2. Tap on .

Connecting Both Conference Call Partners

Requirements:

- Initiated conference call
- to connect two external call partners: **Transfer of external calls to external** permission granted in the PBX.

During a conference call, proceed as follows:

- Tap on .

Ending a Conference Call Completely

Requirements:

- Initiated conference call

During a conference call, proceed as follows:

- Put down the receiver or tap on .

Hands-Free Calling

During hands-free calling, the loudspeaker and microphone on the device are switched on. This option allows you to talk on the telephone even if you need your hands for other tasks. In addition, other people in the room can participate in the call.

Initiating a Call in Hands-Free Calling Mode

- When your telephone rings, tap on or press the **Loudspeaker** key to initiate the call.

  You are now making the call in hands-free calling mode. The LED on the loudspeaker key blinks red.

- If you want to call someone, dial the phone number and tap on or press the **Loudspeaker** key to initiate the call.

  You are now making the call in hands-free calling mode. The LED on the loudspeaker key blinks red.

Note: If you are using a headset, only the loudspeaker key can be used because is being used to initiate and end the headset call.

Ending a Call in Hands-Free Calling Mode

In hands-free calling mode, proceed as follows:

- Press the **Loudspeaker key**.

Switching On Hands-Free Calling during a Call

During a normal call or a call in loudspeaker listening mode using the receiver, proceed as follows:

- Press the **Loudspeaker key** twice. You can then hang up the receiver.

  You are now making the call in hands-free calling mode. The LED on the **loudspeaker key** blinks red.

Switching Off Hands-Free Calling and Returning to Normal Calling

In hands-free calling mode, proceed as follows:

- Pick up the receiver.

  You are now making a normal call.

- If you have already picked up the receiver or a headset is connected, press the **Loudspeaker key**.

  You are now making a normal call or a headset call.

Loudspeaker Listening

During loudspeaker listening, both the loudspeaker in the receiver and the loudspeaker in the device are switched on. This enables other people in the room to listen in on the call. The call is continued using the microphone in the receiver (no hands-free calling).

Switching On Loudspeaker Listening during a Call

During a normal call using the receiver, proceed as follows:

- Press the **Loudspeaker key**.

  You are now making a call in loudspeaker listening mode. The LED on the **loudspeaker key** lights up in red.

Switching Off Loudspeaker Listening and Returning to Normal Calling

During loudspeaker listening mode, proceed as follows:

- Press the **Loudspeaker key** twice.

Ending a Call in Loudspeaker Listening Mode

During loudspeaker listening mode, proceed as follows:

- Hang up the receiver.

Headset Call

A headset enables you to participate in calls without actually holding the receiver. This is a very useful feature, especially in certain professional areas (for example, in a call centre).

Initiating Headset Calls

Requirements:

- Headset operation must be enabled
- When your telephone rings, tap on or press the **hook** key to initiate the call.
- If you want to call someone, dial the phone number and tap on or press the **hook key** to initiate the call.

Ending a Call in Headset Operation

Requirements:

- Enabled headset operation

During a headset call or other call in headset operation, proceed as follows:

- Tap on or press the **hook** key to end the call.

Initiating the Listen-in Function on the Receiver

Requirements:

- Headset operation must be enabled

During a headset call proceed as follows:

- Pick up the receiver.

  You are now making a headset call with an enabled receiver loudspeaker.

Ending the Listen-in Function On the Receiver

Requirements:

- Enabled headset operation

During a headset call with an enabled receiver loudspeaker, proceed as follows:

- Hang up the receiver.

- If you want to involve the listening subscribers in the call, press the **Loudspeaker** key.

Note: If you switch off headset operation during a headset call with an enabled receiver loudspeaker, you will be able to make a normal call using the receiver.

Contacts and Phone Number Lists

This section describes the contact app and the call lists that are available in the telephone.

Topics

– Contacts (page 141)
– Redial List (page 161)
– Call Log (page 164)
– Caller List (page 171)
– LDAP Client (page 174)

Contacts

The Contacts app is used for storing useful or frequently dialled phone numbers along with their associated names. If a phone number associated with a contact is transmitted during a call, the assigned name will be displayed (instead of the phone number).

Additional entries can be stored with each contact, such as phone numbers, e-mail addresses, postal addresses, and notes.

Internal numbers (subscriber, groups, door, emergency call) and the PBX's telephone book are also displayed. If one of these entries does not have a name, the system telephone generates a name for use in the telephone book (for example, int. TN45, KW-A 05306, etc.). However you cannot change the contacts in the system. You can only change them with the PBX's Configuration Manager.

All the contacts in the contact list are displayed in alphabetical order. Contacts with whom you communicate frequently are displayed in the Favourites list, as well as in the contact list.

At the top of the display, you can select one of these three views: Groups , All and Favourites.

Note: If operated on the PBX, the accounts for synchronisation with the PBX are created automatically. The PBX's telephone book is synchronised automatically with the contacts App.

Searching and Displaying a Contact

Proceed as follows:

- Using the telephone

1. Press the **Contact/Telephone book key**.
2. You can scroll through the contacts or search for a specific contact:
   - Scrolling: Draw your fingertip quickly upward or downward to scroll through the contacts.

Notes:

Tap on the display with your fingertip to quickly stop rapid scrolling.

When you are scrolling through alphabetically sorted lists, the symbol appears on the right. Drag the symbol upwards or downwards to scroll to the letter.

   - Search: Enter the first letter using the keypad.

Notes:

If there no contact is present for the letter you enter here or if the contact is not shown, you can delete this letter by tapping on and entering a different letter.

If more than one contact is present for the letter you entered here, you can enter additional letters to narrow the selection further.

---

3. Tap on the name of the contact.

   All the entries for that contact are displayed.

Note: If the displayed contact is an internal number or a short-code dialling number in the PBX, only a single number will be shown for the contact.

4. To display all contacts again, press the Back **key**.

Dialling from the Contacts

Proceed as follows:

- Using the telephone

1. Press the **Contact/Telephone book key**.
2. Scroll to the contact or enter its first letter using the keypad.
3. You can dial the default number or a different associated phone number:
   - Default phone number: Tap on the name of the contact. The default number is selected automatically when you initiate a call by lifting the receiver or pressing the **hook** key.
   - Different phone number: Tap on the name of the contact and then tap on the phone number.

Creating a Contact

In addition to the contacts that are synchronised with the PBX's telephone book, you can create additional contacts on your telephone.

Note: Any contacts that you create on your telephone will not be synchronised with the PBX's telephone book.

Proceed as follows:

- Using the telephone

1. Press the **Contact/Telephone book key**.
2. Tap on .
3. Enter the first name and surname or a number in the **Name** entry field.

Notes:

When entering a number, the user part of the SIP URI must be entered. The user part is the character string in front of the @ character.

By tapping on the icon on the right of the entry field you can add an image to the contact. You can also add an image at a later time by tapping on **Contact/telephone book > Name of the contact > Menu key > Edit contact**.

---

4. Enter the contact's number in the entry field under **Phone**.

Important: Enter phone numbers exactly as when dialling, for example, always enter external numbers with a leading exchange line access number. In the factory settings, the PBX's exchange line access number is "0", but it can be changed in some PBXs (see the Advanced Information of the PBX).

5. To assign a phone number to an account (default setting is **Any public exchange**), select an account from the list field to the right of the phone number under **Phone**.

Note: When selecting a phone number, any account assigned to that number will be considered only if you dial a phone number using the **Contacts** app.

6. Select a label under **Phone** in the second list field to the right of the phone number, to identify that phone number, e.g. private or work (the default setting is **Private**).

7. Enter the contact's e-mail address in the entry field under **E-mail**.

8. Select a label under **E-mail** in the list field next to the e-mail address to identify that e-mail address, e.g. private or work (the default setting is **Private**).

9. If necessary, you can enter additional information, for example **Company**.

Note: Tap **Add another field** to open other entry fields, for example **Notes** and**Web site**.

10. Tap on **Done**.

Editing a Contact

Contacts created on the telephone can be edited at a later time. You can also merge several contacts into a single contact, or separate contacts with multiple entries.

Note: Contacts that are synchronised with the PBX's telephone book cannot be edited on the telephone. You can only change the PBX's telephone book using the PBX's Configuration Manager.

Proceed as follows:

- Using the telephone

Requirements:

- Contact created on the telephone

1. Press the **Contact/Telephone book key**.
2. Scroll to the contact or enter its first letter using the keypad.
3. Tap on the name of the contact.
4. Tap the Menu **Menu** key and then tap on **Edit contact**.
5. Make your changes.

Notes:

To merge two contacts, press the Menu **Menu** key, then tap on **Join**. Then tap on the name of the contact you want to merge with the contact that is currently open for editing.

To separate a contact with several entries into individual contacts, press the Menu **Menu** key, tap on **Separate**, and tap on **OK**.

6. Tap on **Done**.

Deleting a contact

Contacts created on the telephone can be deleted at a later time.

Notes:

Contacts that are synchronised with the PBX's telephone book cannot be deleted from the telephone. You can only change the PBX's telephone book using the PBX's Configuration Manager.

If you no longer want to display synchronised contacts from the PBX's telephone book in the telephone book, you can hide these contacts (**Contact/telephone book key > Name of the contact > Menu > Hide contact**).

Proceed as follows:

- Using the telephone

Requirements:

- contact created on the telephone

1. Press the **Contact/Telephone book key**.
2. Scroll to the contact or enter its first letter using the keypad.
3. Tap on the name of the contact.
4. Press the *Menu* **Menu** key and then tap on **Delete contact**.
5. Tap on **OK**.

Sharing Contacts

You can share contacts and pass them to other devices.

Notes:

Contacts are shared as business cards in vCard format.

You can also share all the contacts at once by tapping **Contact/ telephone book > Menu > Import/export**.

Proceed as follows:

- Using the telephone

Requirements:

- A configured app which supports the sharing of contacts, e.g. e-mail

1. Press the **Contact/Telephone book key**.
2. Scroll to the contact or enter its first letter using the keypad.
3. Tap on the name of the contact.
4. Press the Menu **Menu** key and then tap on **Share**.
5. Select how you want to share the contact.

Options for Configuring Contacts

You can assign an individual ring tone to every contact. You can also forward incoming calls from that contact directly to the answering machine.

Note: You can also link an IP camera to the contact by tapping **Contact and telephone book key > Name of the contact > Menu key > Options** and input DTMF signals for the associated door station.

Proceed as follows:

- Using the telephone

Requirements:

- for call forwarding: an operational answering machine

1. Press the **Contact/Telephone book key**.
2. Scroll to the contact or enter its first letter using the keypad.
3. Tap on the name of the contact.
4. Press the Menu **Menu** key.
5. Tap on **Options**.
6. Tap on **Ringtone** and select the ring tone you want to use from the list field.
7. Tap on **OK**.
8. Select or clear the **Incoming calls** check box.
9. Only if more than one phone number has been saved for the contact: Select or clear the **Edit rules for all phone numbers simultaneously** check box.
   - ☑ The rules are edited for every phone number at the same time (contact-specific settings).
   - ☐ The rules are processed individually for each phone number (phone number-specific settings).
10. Make further settings:
    - Contact-specific settings: Under **TAM options**, enable or clear the **Contact-specific rules** check box.
11. Tap on **Call acceptance**.
12. In the **Call acceptance** list field, select one of the following options:

Announcement and recording: The announcement selected for the contact is played back. After this, the caller can leave a message.

Announcement only: The announcement selected for the contact is played back; however, the caller cannot leave a message.

No call acceptance: A call from the contact is not accepted by the answering machine.

13. Tap on **Announcement**.
14. Select the announcement from the list in the **Announcement** list field that is to be used by the answering machine to accept a call from the contact.
15. Tap on **OK**.

Configuring a Link Between an IP Camera and a Contact

If the link from the IP camera to a contact is active, the IP camera is automatically displayed in the telephony app as soon as you receive a call from the contact or call the contact yourself.

By sending DTMF signals you can open a door and switch on the accompanying stairwell light (connection between the IP camera and a door station in the telephone book).

Proceed as follows:

- Using the telephone

1. Press the **Contact/Telephone book key**.

2. Scroll to the contact or enter the first letter of their name using the keypad.
3. Tap on the name of the contact.
4. Press the Menu **Menu** key.
5. Tap on **Options**.
6. Tap on **IP camera**.
7. In the **IP camera** list field, select the IP camera.
8. Only for a link to a door station: Tap on **DTMF signal open door** and enter the DTMF signal for opening the door in the entry field.
9. Tap on **OK**.
10. Only for a link to a door station: Tap on **DTMF signal light** and enter the DTMF signal for turning on the stairwell light in the entry field.
11. Tap on **OK**.

Note: When you receive a door call, tap on to open the door and tap on to switch on the stairwell light.

Hiding a Contact

You can also hide a contact which is synchronised with the PBX's telephone book at a later point in time.

Note: Contacts that are synchronised with the PBX's telephone book cannot be deleted from the telephone. You can only change the PBX's telephone book using the PBX's Configuration Manager.

Proceed as follows:

- Using the telephone

Requirements:

- a contact that is synchronised with the PBX's telephone book

1. Press the **Contact/Telephone book key**.
2. Scroll to the contact or enter its first letter using the keypad.
3. Tap on the name of the contact.
4. Press the Menu **Menu** key.
5. Tap on **Hide contact**.

Notes:

To display a single contact that has been hidden, tap on **Contact/ telephone book key > Menu > Show hidden contacts > Contact name > Restore contact**.

To display all the contacts that have been hidden, tap on **Contact/ telephone book > Menu > Show hidden contacts > Menu > Restore all contacts**.

Adding/Removing Favourites

Contacts with whom you communicate frequently are displayed in the Favourites list, as well as in the contact list. Contacts that are stored in the telephone can also be added or removed manually to/from the favourites.

Proceed as follows:

- Using the telephone

1. Press the **Contact/Telephone book key**.
2. Scroll to the contact or enter its first letter using the keypad.
3. Tap on the name of the contact.
4. You can add a contact to the favourites or remove it from the favourites:

   Add to favourites: Tap ★ (Contact not Favourite).

   Remove from the favourites: Tap ☆ (Contact is Favourite).

Selecting Contacts for Display

You can select which of the contacts in the contact list are to be displayed. The default setting is that all the contacts in your accounts are displayed in the contact list.

Proceed as follows:

- Using the telephone

1. Press the **Contact/Telephone book** key.
2. Press the Menu **Menu** key.
3. Tap **Contacts to display**.
4. Tap on the radio button next to **All contacts** or on the name of the account.
5. Only for a personalised contact display: Tap on the radio button next to **Customize**.
6. Tap on the name of the account.
7. Select or clear the check box next to the name of the group.
8. Tap on **OK**.

Function Key for Contact

Press the key to display all phone numbers assinged to this contact and to dial them directly.

In addition, the corresponding LED indicates the status of the function.

LED signalling on the contact key:

green blinking	The contact called and the call was not accepted.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Contact**
- Using the telephone by selecting **Contact**

Notes:

The function can only be set up on a programmable function key that has an LED (not on a touch function key).

The function key **Contact** can refer to synchronised contact data. Thus, when reestablishing a data backup, the main number might not be assigned explicitly to the contacts. If a 0 is displayed for the contact after reestablishing a data backup, first of all, the contact key must be operated once so that the contact will be displayed correctly again.

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Contact

Select the contact.

Setting Display Options

You can specify how the contact list is sorted and how the contact names are displayed.

Proceed as follows:

- Using the telephone

1. Press the **Contact/Telephone book key**.
2. Press the

Menu key.
3. Tap on **Settings**.
4. Tap on **Sort list by**.
5. Tap on the radio button next to **Given name** or **Family name**.
6. Tap on **View contact names**.
7. Tap on the radio button next to **Given name first** or **Family name first**.

Adopting a Telephone Number from Dial Preparation

Phone numbers can be adopted from dial preparation and added to existing contacts or new contacts.

Proceed as follows:

- Using the telephone

1. Dial a phone number.
2. Tap on .

3. Add the phone number to an existing contact or to a new contact:
   - Existing contact: Tap on the name of the contact, make the entries, and tap on **Done**.
   - New contact: Tap on , make the entries, and tap on **Done**.

Adopting a Telephone Number from a List of Telephone Numbers

Phone numbers can be adopted from various lists of numbers, such as the redial list, call log, or caller list, and added to existing contacts or new contacts.

Proceed as follows:

- Using the telephone

1. Open the list:
   - Redial list: Press the **Redial key** .
   - Call log: Tap on .
   - Caller list: Press the **Message key**.
2. Touch and hold the phone number and then tap on **Add to contacts**.
3. Add the phone number to an existing contact or to a new contact:
   - Existing contact: Tap on the name of the contact, make the entries, and tap on **Done**.
   - New contact: Tap on , make the entries, and tap on **Done**.

Adopting Telephone Numbers to Other Dialogues

Before entering the phone number in a dialogue (e.g. when configuring a speed dialling key or call forwarding for subscribers), you can select the phone numbers from the contacts.

Proceed as follows:

- Using the telephone

After opening a dialogue for entering phone numbers, proceed as follows:

1. Tap on .

   Note: If you have already entered digits, the contacts and phone numbers that include those digits are displayed.

2. Scroll to the contact or enter its first letter using the keypad.
3. Tap on the name of the contact.
4. Tap on the phone number you want.

Importing/Exporting Contacts

You can import contacts from a data storage device, export them to the data storage device, or use apps to share them with other devices.

Notes:

Contacts will be imported/exported as business cards in vCard format.

You can also share individual contacts under **Contact/Telephone book key > Contact name > Menu key > Share**.

Proceed as follows:

- Using the telephone

Requirements:

- Import/export: Data storage device inserted into slot
- Sharing: An app which is set up to support the sharing of contacts, e.g. e-mail

1. Press the **Contact/Telephone book** key.
2. Press the Menu **Menu** key.
3. Tap on **Import/export**.
4. In the **Import/export contacts** list field, select one of the following options:

   Import from storage: Imports contacts from the data storage device. Select the vCard file.

   Export to storage: Exports contacts to the data storage device. Confirm that you want to export the contacts.

   Share visible contacts: Shares the contacts via an app. Confirm that the other device has received the contacts.

Redial List

The redial list stores the dialled phone numbers with the number of times they have been dialled, the date and time of dialling, and the duration of the call.

Opening the Redial List

Proceed as follows:

- Using the telephone

1. Press the **Redial key**.

   Icons show which telephone call types have been made:

   - Successful outgoing call
   - Unsuccessful outgoing call (phone number busy or subscriber does not answer)

2. You can select a call number, or open the call details:

   - Select the phone number: Tap on the entry.
   - Open the call details: Tap on next to the entry.

Dialling from Within the Redial List

Proceed as follows:

- Using the telephone

1. Press the **Redial key**.

Note: If you pick up the receiver while the redial list is open, the most recently dialled phone number will be dialled immediately.

---

2. You can either dial the phone number without changing it or edit the number before dialling:
   - Dial the phone number without changes: Tap on the entry. or touch and hold the entry and then tap on **Call <phone number>**.
   - Edit phone number before dialling: Touch and hold the entry and then tap on **Edit number before call**. Make the changes in the dial preparation. Then lift the receiver or tap on .

Note: If you want to exit the redial list without dialling a phone number, press the **Back** key.

Deleting Entries from the Redial List

Proceed as follows:

- Using the telephone

1. Press the **Redial key**.

2. Touch and hold the entry and then tap on **Remove from call log**.

Note: To delete the entire redial list, press the Menu **Menu** key, tap on **Clear call log** and then tap on **OK**.

Call Log

The calls made (incoming and outgoing) are saved in the call log along with the phone number, exchange line number and if applicable group number of the call partner, as well as the date, time and duration of the call. A previous call partner can be called directly from the call log. Furthermore, settings for the call log and the e-mail notification can be made.

Opening the Call Log

Proceed as follows:

- Using the telephone

1. Tap on the symbol **Call log**.
2. You can select the following options:
   - **All**: Opens a list that shows all calls in the call log.
   - **Missed**: Opens the list that shows the missed calls.
   - **Outgoing**: Opens the list that shows all outgoing calls.

     The following table shows symbols that describe the call type more specifically.

     ↗ Successful outgoing call

     ↘ Unsuccessful outgoing call (phone number busy or subscriber does not answer)

     ↙ Incoming call

- Missed call
- Forwarded call (manually or e. g. by call forwarding)
- Rejected call (manually or b y the do-not-disturb function)

3. You can select a call number or open the call details:
   - Select the phone number: Tap on the entry.
   - Open the call details: Tap on .

Dialling from the Call Log

Proceed as follows:

- Using the telephone

1. Tap on **Call log**.

Note: If you pick up the receiver while the call log is open, the most recently active phone number will be dialled immediately.

2. You can either dial the phone number without changing it or edit the number before dialling:
   - Dial the phone number without changes: Tap on the entry. or touch and hold the entry and then tap on **Call <phone number>**.
   - Edit phone number before dialling: Touch and hold the entry and then tap on **Edit number before call**. Make the changes in the dial preparation. Then lift the receiver or tap on .

Note: If you want to exit the call log without dialling a phone number, press the **back key**.

Deleting Entries from the Call Log

Proceed as follows:

- Using the telephone

1. Tap on **Call log**.
2. Touch and hold the entry and then tap on **Remove from call log**.

Note: To delete older entries from the call log, press the Menu **Menu** key then tap on **Delete specific items**. In the **Age in days** entry field, enter the number of days and then tap on **OK**. To delete all call log entries, press Menu **> Clear call log > OK**.

Settings Configuration Manager Call log

Proceed as follows:

- Using the Configuration Manager (page **Settings > COMfortel > Call log**)

Call log

☑ ☐ **Log outgoing calls**

☑ ☐ **Log incoming calls**

☑ Outgoing/incoming calls will be saved in the call log.

Incoming calls can additionally be distinguished by call types (see below).

- ☑ ☐ **Unknown calls**
- ☑ ☐ **External calls**
- ☑ ☐ **Internal calls**
- ☑ ☐ **Alarm calls**
- ☑ ☐ **Door calls**
- ☑ ☐ **Other calls**

☑ The call type will be saved in the call log.

E-mail notification

E-Mail notification

No notification: No e-mails are sent.

Only for missed calls: E-mails are only sent if the call was missed.

For all calls: E-mails are sent for those calls that can be selected below.

☑ ☐ **Attach recording**

☑ The call recording is attached to the e-mail.

☑ ☐ **Delete recording after sending**

☑ Sent call recordings will not be deleted automatically

☑ Missed calls will be forwarded via e-mail. At that, it will be distinguished between call types (see below).

☑ ☐ **Mark message as read**

☑ If an e-mail was sent, the call will be marked as read.

- ☑ ☐ **Unknown calls**
- ☑ ☐ **External calls**
- ☑ ☐ **Internal calls**
- ☑ ☐ **Alarm calls**
- ☑ ☐ **Door calls**
- ☑ ☐ **Other calls**

☑ Misssed calls of this call type will be forwarded via e-mail.

Settings Telephone Call log

Proceed as follows:

- Using the telephone (page **> Settings > COMfortel > More > Call log**)

Call log

E-Mail notification

No notification: No e-mails are sent.

Only for missed calls: E-mails are only sent if the call was missed.

For all calls: E-mails are sent for those calls that can be selected below.

☑ ☐ **Attach recording**

☑ The call recording is attached to the e-mail.

☑ ☐ **Delete recording after sending**

☑ Sent call recordings will not be deleted automatically

☑ Missed calls will be forwarded via e-mail. At that, it will be distinguished between call types (see below).

☑ ☐ **Mark message as read**

☑ If an e-mail was sent, the call will be marked as read.

- ☑ ☐ **Unknown calls**
- ☑ ☐ **External calls**
- ☑ ☐ **Internal calls**
- ☑ ☐ **Alarm calls**
- ☑ ☐ **Door calls**
- ☑ ☐ **Other calls**

☑ Misssed calls of this call type will be forwarded via e-mail.

☑ ☐ **Log outgoing calls**

☑ ☐ **Log incoming calls**

☑ Outgoing/incoming calls will be saved in the call log.

Incoming calls can additionally be distinguished by call types (see below).

- ☑ ☐ **Unknown calls**
- ☑ ☐ **External calls**
- ☑ ☐ **Internal calls**
- ☑ ☐ **Alarm calls**
- ☑ ☐ **Door calls**
- ☑ ☐ **Other calls**

☑ The call type will be saved in the call log.

Caller List

The caller list stores the phone numbers of missed calls, including the number of attempts, date, and time of the calls.

A caller can be called back directly from the caller list.

Note: Under **> Settings > COMfortel > More > Call log** you can specify which types of incoming calls are saved in the call log and displayed in the caller list.

Opening the Caller List

The LED on the message key indicates new entries in the caller list.

LED signalling on the message key:	
off	No entries present.
Red (blinking)	New entries are present.
Red	There are no new messages. There are only entries which you have already viewed.

Proceed as follows:

- Using the telephone

1. Press the **message key**.

   The available lists are displayed.

2. Tap on **Caller list**.

   All missed calls are displayed.The symbols in front of the phone numbers show which phone call type has been made:

   - Missed call
   - Rejected call (manually or by the do-not-disturb function)

3. You can dial a phone number or open the detail view for a call:

   - Dial the phone number: Tap on the entry.
   - Open the detail view: Tap on .

Dialling from Within the Caller List

Proceed as follows:

- Using the telephone

1. Press the **Message key**.
2. Tap on **Caller list**.

   Note: If you pick up the receiver while the caller list is open, the most recently active phone number will be dialled immediately.

3. You can either dial the phone number without changing it or edit the number before dialling:

   - Dial the phone number without changes: Tap on the entry. or touch and hold the entry and then tap on **Call** <phone number>.

- Edit phone number before dialling: Touch and hold the entry and then tap on **Edit number before call**. Make the changes in the dial preparation. Then lift the receiver or tap on .

The subscriber is called.

Note: If you want to exit the caller list without dialling a phone number, press the **back key**.

Deleting Entries from the Caller List

Proceed as follows:

- Using the telephone

1. Press the **Message key**.
2. Tap on **Caller list**.
3. Touch and hold the entry and then tap on **Remove from call log**.

Note: To delete the entire caller list, press the **Menu** key, tap on **Clear call log** and then tap on **OK**.

LDAP Client

The Lightweight Directory Access Protocol (LDAP) is a protocol that enables you to query the data in a directory service (a hierarchical database) over the network.

Adding New Account

To create a new account, you must make the following settings:

- Name
- Host
- Port
- User name
- Password
- BaseDN
- Protocol

Proceed as follows:

- Using the telephone

Furthermore, you can make the following settings:

- Contact filter
- Phone filter
- Use ordering rules

1. Tap on **> Settings**.

2. Under **Accounts** tap on **Add account**.
3. Under **Add an account** tap on **LDAP**.
4. Tap on **Name** and enter a name for the account.
5. Tap on **Host** and enter the IP address of the PBX.
6. Tap on **Port** and enter a port.

Note: On the PBX, it is recommended to use the default port 389.

---

7. Tap on **User name** and enter the user name.

Note: The user name can be found in the Configuration Manager of the PBX under **User data > Address Books > Settings** in the line **Simplified user name** next to **User name** (e.g.: cn=auerswaldschandelah,dc=auerswald).

---

8. Tap on **Password** and enter a password.

Note: The password can be found in the Configuration Manager of the PBX under **User data > Address books > Settings** in the line **Simplified user name** next to **Password**.

---

9. Tap on **BaseDN** and enter the BaseDN.

Note: The BaseDN can be found in the Configuration Manager of the PBX under **User data > Address books > Settings** in the line **Simplified user name.** next to **BaseDN**.

---

10. Tap on **Protocol** and enter the protocol that is used in the PBX.

Note: On PBXs, protocol 3 is always used.

11. Tap on **Test connection and submit**.

Note: The exported contact groups can be found under **Apps > People**.

Changing the Permission Level

Proceed as follows:

- Using the telephone

Requirements:

- At least one established LDAP account

1. Tap on **> Settings**.
2. Under **Accounts** tap on **LDAP**.
3. Tap on the account.
4. Press the **menu key**.
5. Tap on **Change permission level**.
6. Under **Login as** select the permission level an enter the password.

7. Tap on **Login**.

Synchronizing the Account

Proceed as follows:

- Using the telephone

Requirements:

- At least one established LDAP account

1. Tap on **> Settings**.
2. Under **Accounts** tap on **LDAP**.
3. Tap on the account.
4. Press the **menu key**.
5. Tap on **Sync now**.

Deleting an Account

Proceed as follows:

- Using the telephone

Requirements:

- At least one established LDAP account

1. Tap on **> Settings**.
2. Under **Accounts** tap on **LDAP**.
3. Tap on the account.
4. Press the **menu key**.
5. Tap on **Remove account** and confirm with **Remove account**.

Functions

This section describes how to configure and operate the functions on your telephone. You can find out what the functions do, and how to assign a function to a programmable function key.

Topics

– External Line Transfer (System Telephone) (page 181)
– Call Waiting (page 184)
– Do-Not-Disturb (page 186)
– Automatic Bandwidth Amplification (page 189)
– Boss/Secretary Function (System Telephone) (page 191)
– Follow-Me (page 197)
– Targeted Exchange Line Access (System Telephone) (page 200)
– Group Function (System Telephone) (page 203)
– Headset Operation (page 212)
– InterCom Announcement/Hands-free calling (page 215)
– Configuration Switchover (System Telephone) (page 225)
– Macro Function (page 228)
– Pick-Up (page 233)
– Power Dialling (page 237)
– Relays (System Telephone) (page 239)
– Calling Line Identity Restriction (page 242)
– Call Forwarding (page 245)
– Blacklist (page 261)
– Control by External Apps (page 264)
– Telephone Line (page 266)
– Announcement Before Answering for Group (System Telephone) (page 270)
– Door Functions (System Telephone) (page 274)

- Waiting Field Function (System Telephone) (page 280)
- Speed Dialling (page 290)

External Line Transfer (System Telephone)

An authorised telephone, for example the telephone exchange, can transfer the exchange line access required for an outgoing call to another internal telephone for a short period of time. This is useful, for example, when this telephone is located in a publicly accessible room, and is only occasionally used for external calls by an employee.

How External Line Transfer Works

External line transfer works like this:

- The requesting telephone must initiate an internal call with the telephone authorised to make the exchange to request exchange line access.

  Important:

  For an exchange line transfer, the telephone making the transfer needs the authority level itself to transfer external calls externally.

The requesting telephone needs at least the official exchange line permission level for incoming external calls.

- After the function key assigned to exchange line transfer has been pressed on the telephone authorised for making exchanges, a confirmation tone is issued to both internal subscribers and the internal call must be ended.
- The requesting telephone now has access to the exchange line settings configured for this purpose on the PBX. These exchange line settings apply until the first successful outgoing external call or until the time limitation has elapsed for initiating the external call.

Note: The external line transfer function is configured in the PBX.

Function Key for Exchange Line Transfer

Press the key during an internal call to transfer the external line access to your call partner for a single external call. Afterwards, a confirmation tone is played on both internal telephones and the internal call must be ended.

LED signalling on the key:

None

Requirements for using the function:

- Telephone is system telephone on the PBX
- **Transfer of external calls to external** permission granted in the PBX.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Ext.line transfer**
- Using the telephone by selecting **Ext.line transfer**

Notes:

The function can only be set up on a programmable function key that has an LED (not on a touch function key).

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Account

Select the system telephony account

Call Waiting

If you are already in a call, the call waiting function plays the call waiting tone to notify you that another call partner is calling.

Switching Call Waiting On/Off

If call waiting is switched on, you will be notified of any incoming calls if you are already on another call.

If the audible signal and call waiting are switched on, a tone in the receiver will notify the user (when already on a call) that another call is incoming. If the audible signal is switched off, incoming calls will be signalled only in the display.

Note: As of firmware 6.6 (PBX) and 2.4 (VoIP telephone) a comparison between telephone and PBX will be implemented. This function can then be switched on or off in the telephone or the PBX.

Proceed as follows:

- Using the telephone (function key or **> Functions > Call waiting**)

1. Switch the call waiting function on or off.
2. Switch the audible signal on or off.
3. Tap on **Execute**.

Function Key for Call Waiting

Press the key to switch call waiting on or off or to toggle.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key:

green	Call waiting is switched on and all the settings assigned to the key match up.
yellow	Call waiting is switched on but at least one of the settings assigned to the key does not match.
Off	Call waiting is switched off.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Call waiting**
- Using the telephone by selecting **Call waiting**

Notes:

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Audible indication

decide each time a key is pressed

Do-Not-Disturb

The do-not-disturb function allows you to block calls to your own telephone. The caller then hears the busy signal. An internal subscriber can reach a telephone with call protection in an emergency using a priority call.

The do-not-disturb function has no effect on outgoing calls, callbacks, alarm calls, wake-up calls or InterCom calls.

Switching the Do-Not-Disturb Function On/Off

If the do-not-disturb function is switched on, the specified call types will are not signalled on the telephone.

The do-not-disturb type indicates which call types it affects when it is switched on.

Notes:

Rejected calls are not added to the caller list on the telephone.

As of firmware 6.6 (PBX) and 2.4 (VoIP telephone) a comparison between telephone and PBX will be implemented. This function can then be switched on or off in the telephone or the PBX.

A call deblocker (incoming) that is configured and enabled in the PBX will only have an effect when the telephone is used as a system telephone in the PBX. Likewise, a priority call made from an internal telephone in the PBX will only have an effect when the telephone is used as a system telephone in the PBX.

Proceed as follows:

- Using the telephone (function key or **> Functions > Do-not-disturb**)

1. If you enabled the do-not-disturb function, in the **Blocked calls** list field, select one of the following options:

   reject all: When do-not-disturb is switched on, all incoming calls will be rejected.

   reject anonymous: When do-not-disturb is switched on, all anonymous calls will be rejected.

   reject if not in contacts: When do-not-disturb is switched on all calls are rejected except for calls from contacts listed in the telephone book.

   Note: The options **reject anonymous** and **reject if not in contacts** could be overridden by the PBX if the telephone is system telephone on a PBX that has a firmware version as of 6.6. Therefore, these options cannot be used in system telephone operation.

   ---

2. Tap on **Execute**.

Function Key for Do-Not-Disturb

Press the key to switch do-not-disturb on or off or to toggle.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key:

green	Do-not-disturb is switched on and all of the settings assigned to the key are in agreement.
yellow	Do-not-disturb is switched on but at least one of the settings assigned to the key is not in agreement.
off	The do-not-disturb function is disabled.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Do-not-disturb**
- Using the telephone by selecting **Do-not-disturb**

Notes:

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Blocked calls

reject all: switches on rejection of all incoming calls (when do-not-disturb is switched on)

reject anonymous: switches on rejection of anonymous calls (when do-not-disturb is switched on)

reject if not in contacts: switches on rejection of all calls except the ones from contacts entered in the telephone book (when do-not-disturb is switched on)

decide each time the key is pressed

Automatic Bandwidth Amplification

The automatic bandwidth amplification function is used to improve call quality during VoIP calls. Missing frequency ranges are added to the voice signal to achieve more natural speech reproduction and make speech easier to understand. In particular, the quality with which voice signals transmitted over connections with lower band width can be reproduced can be improved in this way.

Note: Automatic bandwidth amplification was developed to improve voice signals. However if calls are made in environments with loud background noises, automatic bandwidth amplification has a negative effect on voice quality. The replaying of music, s uch as music on hold, is negatively affected by automatic bandwidth amplification.

Switching Automatic Bandwidth Amplification On/Off

If automatic bandwidth amplification is switched on, missing frequency ranges are added to the voice signal, to improve the call quality. If automatic bandwidth amplification is switched off, the voice signal is reproduced unchanged.

Proceed as follows:

- Using the telephone (function key or **> Functions > Automatic bandwidth amplification**

1. Tap on **Execute**.

Function Key for Automatic Bandwidth Amplification

Press the key to switch the automatic bandwidth amplification function on or off or to toggle.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key:

green	Automatic bandwidth amplification is switched on.
Off	Automatic bandwidth amplification is switched off.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Automatic bandwidth amplification**
- Using the telephone by selecting **Automatic bandwidth amplification**

Notes:

The function can only be set up on a programmable function key that has an LED (not on a touch function key).

For further information about the general procedures when assigning function keys, see Function Keys.

Boss/Secretary Function (System Telephone)

The boss/secretary function protects the boss telephone from direct calls by forwarding them to the secretary telephone. The most important difference from call forwarding is that the boss telephone can still be called from the secretary telephone and the secretary can still transfer important calls to the boss telephone.

Procedure when Calling the Boss Telephone

If the boss/secretary function has been switched on, calls to the boss telephone are made as follows:

- All internal and external calls (also call through), as well as door calls and callbacks initiated by the caller, are rerouted to the relevant secretary's telephone. The following types of calls are not rerouted to the secretary's telephone even when the boss/secretary function has been switched on:
  - Alarm calls
  - InterCom calls (if permitted)
  - Wake-up calls
  - Callbacks initiated from the boss telephone
  - Callbacks after a system software update
  - Repeated calls from the boss telephone after an exchange transfer

Important: When the boss/secretary function is switched on, incoming calls are also rerouted to the secretary telephone when the functions do-

not-disturb, call restrictor incoming or subscriber call forwarding are enabled on the boss telephone. On the other hand, a call from the secretary telephone to the boss telephone is rerouted if call forwarding is enabled or will give a busy signal if do-not-disturb is enabled.

- The rerouted calls are shown on the display on the boss telephone and can be accepted by pressing the secretary key (pick-up).
- If a rerouted call is picked up on the secretary's telephone, the call can be treated normally. If multiple boss keys have been programmed, the red blinking LED lights up next to the boss key, indicating the boss telephone it is assigned to.

Note: On the secretary's telephone, in addition to the boss key, it is also a good idea to configure a speed dialling key for the phone number of the boss telephone to keep track of whether it is busy or not.

- It is possible to initiate a query call to the boss telephone or to forward a call to the boss telephone by pressing a boss key on the secretary's telephone.

Note: In order to recognise a call that comes from the secretary's telephone, the secretary's number can be entered into the telephone book on the manager telephone and assigned a specific ringtone.

Switching the Boss/Secretary Function on the Boss Telephone On/Off

Proceed as follows:

- Using the telephone

Requirements:

- Telephone is system telephone on the PBX
- A secretary key configured on the boss telephone
- A suitably configured boss key on the secretary telephone

- Press the **function key** configured as the secretary key.

Secretary Function Key on the Boss Telephone

Notes:

It is not possible to configure boss keys and secretary keys on the same telephone at the same time. This means that a telephone cannot be both a boss telephone and a secretary telephone at the same time.

A maximum of five secretary keys can be configured on one telephone.

Press the key while in the telephone's idle state to switch the boss/secretary function on or off.

During an incoming call, rerouted calls are shown on the display of the boss telephone. Press the secretary key to pick up this call.

In addition, the corresponding LED indicates the status of the function.

LED signalling on the secretary key:

green	The boss/secretary function is enabled. Press the key to switch the boss/secretary function on and off.
red (blinking)	The boss/secretary function is enabled. A call has just been forwarded to the associated secretary. Press the key to initiate a pick-up.
off	The boss/secretary function is disabled. Press the key to enable the boss/secretary function.

Requirements for using the function:

- Telephone is system telephone on the PBX
- A suitably configured boss key on the secretary telephone

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Secretary**
- Using the telephone by selecting **Secretary**

Notes: The function can only be set up on a programmable function key that has an LED (not on a touch function key).

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Account

Select the system telephony account.

Secretary number

Enter the secretary phone number.

Boss Function Key on the Secretary Telephone

Notes:

It is not possible to configure boss keys and secretary keys on the same telephone at the same time. This means that a telephone cannot be both a boss telephone and a secretary telephone at the same time.

A maximum of five boss keys can be configured on one telephone.

Press the key to initiate a call or a query call to the corresponding boss telephone.

In addition, the corresponding LED indicates the status of the function.

LED signalling on the boss key:

green	The boss/secretary function is enabled.
red (blinking)	The boss/secretary function is enabled. The incoming call has been forwarded to the corresponding boss telephone. Press the key to initiate a query call to the boss telephone.
off	The boss/secretary function is disabled.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Boss**
- Using the telephone by selecting **Boss**

Notes:

The function can only be set up on a programmable function key that has an LED (not on a touch function key).

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Account

Select the system telephony account.

Boss number

Enter the boss phone number.

Follow-Me

Follow-me is an "unconditional internal subscriber call forwarding" type that is configured on the individual destination telephone (instead of on the forwarding telephone). This gives you the option of moving from room to room and taking the calls with you.

Switching Follow-Me On/Off

Proceed as follows:

- Using the telephone (function key or **> Functions > Follow-me**)

Requirements:

- **Controlling of the PBX via telephone** permission assigned in the PBX
- **Call forwarding (groups)/Follow-me** permission assigned in the PBX

1. In the **Operation** list field, select one of the following options:

   disable all: Disables all of the currently enabled follow-me functions. (No further action is required.)

   switch on: Enables follow-me for a subscriber.

   switch off: Disables follow-me for a subscriber.

2. Select the subscriber whose calls you want to be forwarded:

   - Manual entry: In the **Number to redirect** entry field, enter an internal number.

- Selection: Tap on and select an internal number.

Note: Follow-me can also be disabled on the forwarded telephone by using "Disable Follow-me" on the subscriber's own phone number.

---

3. Tap on **Execute**.

Function Key for Follow-Me

Press the follow-me key to switch follow-me on or off, or toggle it, for an internal subscriber.

LED signalling on the key:

None

Requirements for using the function:

- **Controlling of the PBX via telephone** permission assigned in the PBX
- **CF (groups)/Follow-me** permission assigned in the PBX

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Follow-me**
- Using the telephone by selecting **Follow-me**

Notes:

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Operation

disable all: switches all follow-mes off

decide each time the key is pressed

Number to redirect

Enter the internal number of the subscriber whose calls are to be forwarded.

Targeted Exchange Line Access (System Telephone)

Using targeted exchange line access, you can define which MSN (your own external number) is transmitted for an external call, and which account should be used while doing so.

Initiating Targeted Exchange Line Access

Proceed as follows:

- Using the telephone

Requirements:

- Telephone is system telephone on the PBX
- A function key configured for targeted exchange line access

1. Press a **function key** configured for targeted exchange line access.

   The VoIP account is enabled for the next call. The account name is shown in the dial window.

2. Dial a phone number (an external number without an exchange line access number).

Note: In any case, the external number must be dialled with the corresponding local area code, even if it is the local local area code. Special numbers provided by the VoIP provider, for example numbers for

account balance enquiries or mailbox queries, do not usually have a local area code.

3. Pick up the receiver or tap on .

   The subscriber is called.

Notes:

If you are called before you start the conversation, you must initiate the specific exchange line access again for your next conversation.

If you want to transfer the specified MSN (your external number) during external calls, calling line identification must be enabled (shown in display).

Function Key for Targeted Exchange Line Access

Press the key to initiate targeted exchange line access. You can then immediately dial the external number (without exchange line access number).

In addition, when functions are defined on the first key level, the status of the account is indicated by the corresponding LED.

LED signalling on the key:

red	All the account's call channels are occupied (call not possible).
yellow	At least one of the account's call channels is available. Press the key to use the call channel that is still available.

LED signalling on the key:

off	All the account's call channels are available. Press the key to occupy one of the available call channels.

Requirements for using the function:

- Telephone is system telephone on the PBX

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Exchange line**
- Using the telephone by selecting **Exchange line**

Notes:

The function can only be set up on a programmable function key that has an LED (not on a touch function key).

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Account

Select system telephony account

MSN

Enter the external number that you want to transfer during targeted exchange line access (without an exchange line access number and without a prefix)

Group Function (System Telephone)

In addition to internal subscribers, the PBX can also manage groups. The internal subscribers can become members of any (multiple) group(s). These groups can be used, for example, to group internal subscribers into particular departments or teams (Support, Marketing, Sales).

Membership in a group does not necessarily mean that a subscriber receives calls sent to the group. A subscriber that is logged out is not involved in any group functions. This can be especially important for employees of a support department, who should not be available to customers around the clock, but instead rotate in and out of the hotline.

Detailed Information About Group Functions (Call Types)

Notes:

If a group (subgroup) has been configured in the PBX as a member of a group (main group), and a subscriber is a member of both of these groups simultaneously, that subscriber will be handled only as a member of the main group, during a call.

Subgroups (i.e. groups that have been configured in the PBX as members of other groups) are "permanently logged in as incoming" and "permanently logged in as outgoing" in the associated main group.

There are three different ways to log in:

Incoming:

When logging into a group as "incoming", the subscriber will then be in that group's call distribution for internal, external, and door calls.

Outgoing:

When logging into a group as "outgoing", the subscriber acquires a number of characteristics/access rights from the group. These replace the subscriber's own characteristics/access rights as an individual subscriber for outgoing work-related calls. A subscriber can be logged in to a single group as "outgoing" even if the subscriber is a member of more than one group.

Note: If a subscriber logs into different groups as "outgoing" one after the other, the subscriber will only remain logged in as "outgoing" in the group that they last logged into.

Incoming and outgoing

When logging into a group as "incoming and outgoing", the subscriber is then in the call distribution of that group for internal, exchange line and door calls and also acquires a number of additional characteristics/permissions from the group. These replace the subscriber's own characteristics/permissions as an individual subscriber for outgoing work-related calls.

Note: If a subscriber logs in to more than one group as "incoming and outgoing", the subscriber will only remain logged in as "incoming and outgoing" in the group that the subscriber last logged into. In all other groups, the subscriber is then only "logged in as incoming".

Logging the Telephone In/Out

Proceed as follows:

- Using the telephone (function key or **> Functions > Group**)

Requirements:

- Telephone is system telephone on the PBX
- Telephone is a member of at least one group configured in the PBX
- **Controlling of the PBX via telephone** permission assigned in the PBX

1. In the **Operation** list field, select one of the following options:

   Login: Logs the telephone in to the group.

   Logout: Logs the telephone out of the group.

2. In the **Call direction** list field, select one of the following options:

   outgoing: Select the call type for outgoing.

   incoming: Select the call type for incoming.

   incoming and outgoing: Selects the call type for incoming & outgoing.

3. Select the group:

   - Manual entry: In the **Group** entry field, enter the group number.
   - Selection: Tap on and select the group based on its name.

4. Tap on **Execute**.

Function Key for the Group Function

Press the key to execute the action configured in the key for the specified group.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key:	
green	The telephone is logged in to the group for incoming and outgoing calls.
yellow	The phone is logged in to the group as incoming or outgoing according to the **Call direction** key assignment.
off	The telephone is logged out of the group according to the **Call direction** key assignment.

Requirements for using the function:

- Telephone is system telephone on the PBX
- **Controlling of the PBX via telephone** permission assigned in the PBX

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Group**
- Using the telephone by selecting **Group**

Notes:

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Operation

toggle log state: log telephone in or out, depending on current status

login: log telephone into the group

Logout: log telephone out of the group

Call direction

outgoing: switches on "outgoing" call type

incoming: switches on "incoming" call type

incoming and outgoing: switches on "incoming & outgoing" call type

decide each time the key is pressed

Account

Select system telephony account

Group

Enter a group number

Logging Telephone Out of All Groups

Proceed as follows:

- Using the telephone (function key or **>Functions > Group function off**)

Requirements:

- Telephone is system telephone on the PBX
- The telephone is a member of at least one group configured in the PBX
- **Controlling of the PBX via telephone** permission assigned in the PBX

1. Tap on **Execute**.

Function Key for Logging Out of All Groups

Press the key while the telephone is in the idle state to log the telephone out of all groups.

LED signalling on the key:

green	The telephone is logged in as incoming in all groups in which it is a member and in one group as outgoing.
yellow	The telephone is logged in to at least one group.
off	The telephone is not logged in to any groups.

Requirements for using the function:

- Telephone is system telephone on the PBX
- **Controlling of the PBX via telephone** permission assigned in the PBX

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Group function off**
- Using the telephone by selecting **Group function off**

Notes:

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Account

Select system telephony account

Function Key for Displaying the Group State

Press the key while the telephone is in the idle state to display the current group state of the subscribers (logged out, logged in as incoming and/or outgoing) on the LEDs of configured speed dialling keys for approx. 10 seconds. For this purpose the speed dialling keys must be assigned to the corresponding subscriber numbers. Press the key again within 10 seconds to cancel the display.

LED signalling on the key:

green (blinking)	The group state is being queried.
off	The group state is not being queried.

LED signalling on the speed dialling keys assigned to subscriber numbers:

red	The telephone is logged out of the group.

LED signalling on the speed dialling keys assigned to subscriber numbers:

green	The telephone is logged in to the group for incoming and outgoing calls.
yellow	The telephone is logged in to the group for incoming calls.
yellow (blinking)	The telephone is logged into the group for outgoing calls.

Requirements for using the function:

- Telephone is system telephone on the PBX
- Speed dialling keys assigned to the corresponding subscriber numbers.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Group state**
- Using the telephone by selecting **Group state**

Notes:

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Account

Select system telephony account.

Group

Enter a group number

Headset Operation

A headset enables you to participate in calls without actually holding the receiver. This is a very useful feature, especially in certain professional areas (for example, in a call centre).

The COMfortel 1400 IP can be used with corded headsets. The COMfortel 2600/3600 IP can be used with corded headsets and with cordless headsets with EHS interfaces, for example, from Auerswald, Jabra or Plantronics.

Switching Headset Operation On/Off

If headset operation is switched on, press the Hook key to initiate or end a headset call. If headset operation is switched off, press the Hook key to initiate or end a call without the need to pick up the receiver (hands-free calling).

Proceed as follows:

- Using the telephone (function key or **> Functions > Headset**)

Requirements:

- Connected Headset

1. In the **Auto-accept** list field, select one of the following options:

   switch off: Switches off automatic call acceptance when headset operation is switched on.

switch on: Switches on automatic call acceptance when headset operation is switched on.

switch on (play tone): Switches on automatic call acceptance (with attention tone) when headset operation is switched on.

Notes:

Switching on automatic call acceptance automatically switches off any answering machine in a telephone. Conversely, switching on an answering machine will switch off automatic call acceptance ("Auto-accept").

The COMfortel DECT headset's **automatic call acceptance** function applies solely to call acceptance between the COMfortel DECT headset and the associated base station. Its settings do not affect automatic call acceptance between the headset and the telephone.

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2. Enter a value in the **Auto-accept timeout** entry field.
3. Tap on **Execute**.

Function Key for Headset Operation

Press the key to switch headset operation on or off or to toggle.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key:

green	Headset operation is enabled.

LED signalling on the key:

yellow	Headset operation is switched on but at least one of the settings assigned to the function key is not in agreement.
off	Headset operation is disabled.

Requirements for using the function:

- Connected Headset

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Headset**
- Using the telephone by selecting **Headset**

Notes:

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Auto-accept

switch on (play tone): Switch on automatic call acceptance and the attention tone when headset operation is switched on

decide each time a key is pressed

Auto-accept timeout

Enter a value

InterCom Announcement/Hands-free calling

The InterCom function enables an announcement to a single system telephone or to all system telephones in a group from any internal telephone without someone having to actively accept a call (for example, in a doctor's office).

If the InterCom destination is a single system telephone, the caller can switch on the microphone in addition to the loudspeaker (hands-free calling) so that a person nearby can speak with the caller using this intercom system.

How InterCom Announcement Works

The InterCom announcement process runs as follows:

- According to the InterCom destination, either a single system telephone or all system telephones in a group that have the InterCom function are called.

  Note: The only system telephones in the group that are called are those which are available for a conversation, e.g. those that are not busy. This

means the individual members of the group do not need to be logged into the group. They are still called if they are logged off from the group.

- Depending on InterCom destination is involved, after a short ring, either a single system telephone or all the system telephones in the group automatically take the call.
- The announcement is performed.

Note: For security reasons, the announcement is limited to 120 seconds to prevent possible misuse of this function (for example, eavesdropping from distant rooms).

- At the end of 120 seconds the connection is automatically interrupted. If the InterCom destination is a single system telephone, the connection can be maintained by picking up the system telephone's receiver before the 120 seconds elapses.

Performing InterCom Announcement

Requirements:

- InterCom permission at the InterCom destination(s)
- A function key configured for InterCom Announcement
- Telephone is a system telephone on the PBX or InterCom announcement is performed on the PBX for which the sequence **##011** has been entered under **Settings > Providers & PBXs > Name of Provider/PBX > Numbers > Special numbers > Keypad sequence for InterCom hands-free calling**.

Note: The InterCom announcement can also be performed from any internal telephone (see the PBX‘s Advanced Information).

Depending on the action type configured on the key, proceed as follows:

1. Press the **function key** for InterCom announcement or press and hold the **function key**.

   The LED next to the function key lights up green to show a call connection is present.

2. To end the announcement, press the **function key** again or release the **function key**.

Function Key for InterCom Announcement

Press the key when the telephone is in its idle state to select the subscriber number or group number stored on the key and initiate the InterCom announcement. Depending on the action type configured, you need to hold the key during the announcement (as soon as you release the key again, the connection is terminated) or switch the key over by briefly pressing the key (the key is pressed once at the start and once at the end).

In addition, when InterCom destination is defined on the first key level, the status of the InterCom destination connection is indicated by the corresponding LED.

LED signalling on the key (when assigned to an internal subscriber number):

green	There is currently an active connection to the InterCom destination.
off	There is currently no active connection to the InterCom destination.

LED signalling on the key (when defined with an internal group number):

green	An active connection to all InterCom destinations is present.
green (blinking)	The InterCom call is sent to the PBX.
yellow	There is currently an active connection to at least one InterCom destination.
red	No InterCom destination is accessible.

Requirements for using the function:

- Telephone is a system telephone on the PBX or InterCom announcement is performed on the PBX for which the sequence **##011** has been entered under **Settings > Providers & PBXs > Name of Provider/PBX > Special numbers > Keypad sequence for InterCom hands-free calling**
- InterCom permission is present at the InterCom destination

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **InterCom Announcement**
- Using the telephone by selecting **InterCom Announcement**

Notes:

The function can only be set up on a programmable function key that has an LED (not on a touch function key).

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Operation

Hold:The key must be held down during the announcement

toggle: A short press of the key starts the announcement. Another short press of the key ends the announcement

Account

Select the account for the PBX

InterCom destination

Enter the internal number

How InterCom Hands-Free Calling Works

The InterCom hands-free calling function works like this:

- A system telephone is called using the InterCom hands-free calling function.
- After a few rings, the system telephone automatically picks up the call.
- The hands-free call is carried out.

Note: For security reasons, hands-free calling is limited to 120 seconds to prevent possible misuse of this function (for example, eavesdropping from distant rooms).

- After 120 seconds has elapsed, the connection is automatically interrupted unless the system telephone receiver is picked up during this time.

Using InterCom Hands-Free Calling

Requirements:

- InterCom permission at the InterCom destination
- Function key configured for InterCom hands-free calling
- Telephone is system telephone on the PBX or InterCom announcement is performed on the PBX for which the sequence **##012** has been entered under **Settings > Providers & PBXs > Name of Provider/PBX > Numbers > Special numbers > Keypad sequence for InterCom hands-free calling**.

Note: InterCom hands-free calls can also be performed by any internal telephone (see the PBX‘s Advanced Information).

Depending on the action type configured on the key, proceed as follows:

1. Press the **function key** for InterCom hands-free calling or press and hold the **function key**.

   The LED next to the function key lights up in green to show that a call connection is present.

2. To end the announcement or hands-free calling function, press the **function key** again or release the **function key**.

Function Key for InterCom Hands-Free Calling

Press the key when the telephone is in its idle state to select the phone number stored on the key and initiate the InterCom hands-free call. Depending on the action type configured, you need to hold the key during hands-free operation (as soon as you release the key again, the connection is terminated) or switch the key over by briefly pressing the key (the key is pressed once at the start and once at the end).

In addition, when InterCom destination is defined on the first key level, the status of the InterCom destination connection is indicated by the corresponding LED.

LED signalling on the key:

green	There is currently an active connection to the InterCom destination.
green (blinking)	The InterCom call is sent to the PBX.
red	InterCom destination not accessible.
off	There is currently no active connection to the InterCom destination.

Requirements for using the function:

- Telephone is a system telephone on the PBX or InterCom announcement is performed on the PBX for which the sequence **##012** has been entered under **Settings > Providers & PBXs > Name of Provider/PBX > Special numbers > Keypad sequence for InterCom hands-free calling**.
- InterCom permission is present at the InterCom destination

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **InterCom Hands-free calling**
- Using the telephone by selecting **InterCom Hands-free calling**

Notes:

The function can only be set up on a programmable function key that has an LED (not on a touch function key).

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Operation

Hold:The key must be held down during the announcement

toggle: A short press of the key starts the announcement. Another short press of the key ends the announcement

Account

Select the account for the PBX

InterCom destination

Enter the internal number

Switching InterCom Permission On/Off

Proceed as follows:

- Using the telephone (function key or **> Functions > InterCom permission**)

Requirements:

- Telephone is system telephone on the PBX
- **Controlling of the PBX via telephone** permission assigned in the PBX

For InterCom calls, InterCom permission must be enabled in the system telephone that is called.

1. Tap on **Execute**.

Function Key for InterCom permission

Press the function key to which **InterCom permission** has been assigned to switch InterCom permission on or off, or toggle it.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key:	
green	InterCom permission is enabled.
off	InterCom permission is disabled.

Requirements for using the function:

- **Controlling of the PBX via telephone** permission assigned in the PBX

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **InterCom (perm.)**
- Using the telephone by selecting **InterCom (perm.)**

Note: For further information about the general procedures when assigning function keys, see Function Keys.

Configuration Switchover (System Telephone)

If different configurations (system profiles) have been set up for day, night, etc. in the PBX, switchover between the configurations can be performed either manually or on a time-specific basis.

Manual Configuration Switchover

Note: For switching the automatic configuration switchover on/off, switch the system relay with operation mode automatic configuration switchover and the Identification number 900 (optional, see Advanced Information of the PBX). For further information about the procedure, see chapter Functions > Relays (System Telephone) > Switching Relays On/Off.

Proceed as follows:

- Using the telephone (function key or **> Functions > Configuration**)

Requirements:

- Telephone is system telephone on the PBX
- At least two configurations have been set up in the PBX
- Configuration switchover **permission granted in the PBX**

1. Select the identification number of the configuration:

- Manual entry: Enter the identification number in the **Configuration to enable** entry field.
- Selection: Tap on and select the identification number based on its name.

2. Tap on **Execute**.

Function Key for Configuration Switchover

Press the key to enable the configuration that has been set up.

Note: For switching the automatic configuration switchover on/off, assign a function key for switching the system relay with operation mode automatic configuration switchover and the Identification number 900 (optional, see Advanced Information of the PBX). For further information about the procedure, see chapter Functions > Relays (System Telephone) > Function Key for Switching Relays.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key:	
green	The configuration saved in the key is enabled.
off	The configuration saved in the key is disabled.

Requirements for using the function:

- Telephone is system telephone on the PBX
- **Configuration switchover** permission granted in the PBX

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Switch config.**
- Using the telephone by selecting **Switch config.**

Notes:

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Account

Select the system telephony account.

Configuration to activate

Configuration manager: select the configuration

Telephone: Enter identification number in the entry field

Macro Function

You can use the macro function to assign digits and various consecutive commands, for example, for accessing an answering machine remotely or programming a function on the PBX, to a function key.

Macro Execution Process

Below you find a description of the process based on an example key to which the command sequence **HZ300CW2Z#22#Lg** has been assigned:

- Command **Z300**: When you press the macro key, phone number 300 (e.g. answering machine) is entered in the dial preparation.
- Command **H**: The telephone dials the phone number from the dial preparation and switches to hands-free calling.
- Command **C**: The telephone waits for the connection.
- Command **W2**: After the connection has been established, the telephone waits another 2 seconds.
- Command **Z#22#**: The telephone dials the DTMF code #22#.
- Command **Lg**: The LED next to the function key switches on (green).

Important: The state of the LED remains the same after a macro is executed – until the next time the command Lo, Lg, Lr or Ly is executed with the same key. If the LED is not to be used for status indication, we recommend you add the command Lo (disable LED) to the end of a macro.

If you want to stop running the macro, press the **hook** key.

The macro stops running immediately when an incoming call is made to a destination that is busy or when a connection returns that it is busy. This occurs, for instance, when the other calling party ends the call or the macro contains a programming code that is not authorised.

Function Key for the Macro Function

Press the key while the telephone in the idle state to execute a macro. If the H command (hang-up/pick-up with the hook key) is located at the beginning of a macro, the macro saved in the system is run immediately. If this is not the case, you need to first confirm you want the macro function to start.

In addition, you can read the status of the relevant macro on the LED.

LED signalling on the key:

Depending on the purpose of the commands Lo, Lg, Lr and Ly.

Note: The commands for controlling LEDs are used on both levels of the keys. This makes it possible, for instance, to use the macro to switch the LED on, on the one key level, and to use the macro to switch LED off on the other key level. In this way the switching status of a different function that is enabled at the same time can be seen on the LED.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Macro**
- Using the telephone by selecting **Macro**

Notes:

The function can only be set up on a programmable function key that has an LED (not on a touch function key).

The **Macro** function fills both key levels. If one level has a macro assigned to it, the other level is also automatically filled with an empty macro.

Both macros can later be processed and executed independently of each other.

If you delete a macro from one key level, the macro is automatically deleted from the other key level.

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Account

Select the account

Macro

Enter the macro

Up to 100 characters for a maximum of 10 keys, up to 40 characters for additional keys

The following commands:

Z [number sequence]:

Number sequence selection including * and #

W [digits 1-5]:

Waiting time/pause time of 1-5 seconds

H

Hang-up/pick-up with the hook key

C

Wait for a connection

Lo

The LED next to the function key switches off

Lr

The LED next to the function key switches on (red)

Ly

The LED next to the function key switches on (yellow)

Lg

The LED next to the function key switches on (green)

Notes:

If you want to configure a programming function on the PBX as a macro, enter a pause between the password and the programming code sequence.

Pauses cannot be entered at the beginning of a macro.

The maximum pause time is 5 seconds. This restriction does not apply for the C command (waiting for a connection).

The commands for controlling LEDs are used on both levels of the keys. This makes it possible, for instance, to use the macro to switch the LED on, on the one key level, and to use the macro to switch LED off on the other key level. In this way the switching status of a different function that is enabled at the same time can be seen on the LED.

Pick-Up

If the pick-up function has been enabled, you can take a call on your own phone that was originally sent to another internal telephone.

If the call has already been accepted, the call can be picked-up using the same procedure (assuming call pick-up has been permitted by the subscriber being called). This function is useful when dealing with, for example, answering machines.

Performing Pick-Up

Requirements:

- **Pick-up** permission granted in the PBX
- Telephone is a system telephone on the PBX or pick-up is performed on the PBX for which the sequence **##06** has been entered under **Settings > Providers & PBXs > Name of Provider/PBX > Special numbers > Keypad sequence for pickup**.

If an internal telephone rings somewhere near you, proceed as follows:

1. Tap on **> Functions > Pick-up**.

   Alternatively, press a **function key** configured for pick-up.

2. In the **Pick-up destination** entry field, enter the ringing telephone's internal number.

Note: If you want to take a call that is directed to a group, select the pick-up for the group number.

3. Tap on **Execute**.
4. Pick up the receiver or tap on .

Pick-Up During a Call

Requirements:

- **Pick-up** permission granted in the PBX
- A **function key** configured for pick-up
- Telephone is a system telephone on the PBX or pick-up is performed on the PBX for which the sequence **##06** has been entered under **Settings > Providers & PBXs > Name of Provider/PBX > Special numbers > Keypad sequence for pickup**.

If an internal telephone rings somwhere near you during a call, proceed as follows:

1. Press the **function key** configured for pick-up.
2. In the dial window, select the VoIP account and a phone number.

Note: If you want to take a call that is directed to a group, select the pick-up for the group number.

3. Tap on the caller's business card or tap on .

   You are now connected with the caller. Your previous call partner hears the on-hold music.

Function Key for Pick-Up

Open the dial window by pressing the key that is assigned to an unspecific pick-up number. You can then enter the internal number of the telephone that is ringing.

By pressing the key with a defined pick-up destination, you will perform a pick-up call for the defined destination.

In addition, if you press the key, this initiates a call pick-up on telephones or answering machines for which permission has been given (refer to the Advanced Information for the PBX).

LED signalling on the key for pick-up with specific pick-up destination:

Red (blinking)	The internal telephone is currently being called or a call is waiting on that telephone. Press the key to initiate a pick-up.
Red	A call is in progress on the internal telephone. Press the key to initiate a call pick-up.

Requirements for using the function:

- Telephone is a system telephone on the PBX or pick-up is performed on the PBX for which the sequence **##06** has been entered under **Settings > Providers & PBXs > Name of Provider/PBX > Special numbers > Keypad sequence for pickup**.
- **Pick-up** permission granted in the PBX

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Pick-up**
- Using the telephone by selecting **Pick-up**

Notes:

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Account

Select the account

Pick-up destination

Enter the internal number

Power Dialling

If the telephone being called is busy, but automatic callback on busy is not possible, the power dialling function can be enabled instead. With power dialling, the telephone makes repeated attempts to reach the subscriber being called, at short time intervals.

How Power Dialling Works

You perform power dialling as follows:

- After enabling Power Dialling, the telephone starts the first dial attempt after 5-10 seconds.
- Every other dial attempt is carried out every 30 seconds.
- As soon as the subscriber is no longer busy, and the telephone receives a ringing tone, it switches the loudspeaker on.
- The connection is then established, when the person being called picks up the receiver. If they do not pick up the receiver, power dialling ends.
- If power dialling is not successful, the telephone automatically cancels the function after 10 minutes.

Note: If interruptions occur (for example, calls that are initiated in the meantime), this time period will accordingly extend.

Initiating Power Dialling

If the connection is busy and callback is not possible, proceed as follows:

1. Tap on .

Note: Avoid leaving the telephone once power dialling has been initiated because, whenever a connection is established, the loudspeaker on the telephone will be automatically switched on.

Cancelling Power Dialling

Requirements:

- initiated power dialling

If you want to cancel power dialling in progress, proceed as follows:

- The telephone is not in the idle state. It is currently attempting to reach the subscriber in question: Press the **hook** key or tap on or cancel Power Dialling via the status bar.

Relays (System Telephone)

If the PBX is equipped with one or more relays, they can be switched on and off, depending on the relay function configured for each telephone.

Switching Relays On/Off

Proceed as follows:

Using the telephone (function key or **> Functions > Relay**)

Requirements:

- Telephone is system telephone on the PBX
- **Switching of relay** permission granted in the PBX
- The relay in the PBX has been set up with the **Configuration-dependent**, **Automatic configuration switchover**, **PC relay** or **manual relay** operating modes (refer to the PBX's Advanced Information for different options here)

1. Select the relay:
   - Manual entry: Enter a relay ID in the **Relay ID** entry field.
   - Selection: Tap on and select a relay ID.
2. Tap on **Execute**.

Function Key for Switching Relays

Press the key to switch the configured relay on or off or to toggle.

In addition, when functions are defined on the first key level, the status of the relay is indicated by the corresponding LED.

LED signalling on the key:	
green	The relay configured on the key is enabled.
off	The relay configured on the key is disabled.

Requirements for using the function:

- Telephone is system telephone on the PBX
- **Switching of relay** permission granted in the PBX

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Relay**
- Using the telephone by selecting **Relay**

Notes:

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Operation

decide each time a key is pressed

Account

Select the system telephony account

Relay ID

Enter the identification number. You find it in the PBX (Device > Relays (Actuators)).

Calling Line Identity Restriction

Calling Line Identity Restriction enables the caller to make a call without revealing their phone number to the person being called.

Switching Calling Line Identity Restriction On/Off

If Calling Line Identity Restriction is switched on, appears in the telephony app's toolbar before the call is initiated.

Notes:

Anonymous calls are not possible with some VoIP providers. If you intend to use this function, first ask your provider if this service attribute is supported.

This function can only be used on one of the PBX's land line connections if the "case-by-case restriction of calling line identification " has been requested from, and enabled by, the network provider.

Proceed as follows:

- Using the telephone (function key or **> Functions > Calling line identity restriction**)

1. In the **Operation** list field, select one of the following options:

   toggle: Switches Calling Line Identity Restriction on or off.

   switch on: Switches Calling Line Identity Restriction on.

switch off: Switches Calling Line Identity Restriction off.

2. Tap on **Execute**.

Function Key for Calling Line Identity Restriction

Press the key to switch calling line identity restriction on or off or to toggle.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key:	
green	Calling line identity restriction is enabled.
off	Calling line identity restriction is disabled.

Requirements for using the function:

- Calling Line Identity Restriction supported by the VoIP provider
- Land line connections for the PBX CLIR 2 service feature (case by case suppression of the display of the phone number) enabled by the network provider

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Calling line identity restriction**
- Using the telephone by selecting **Calling line identity restriction**

Note: For further information about the general procedures when assigning function keys, see Function Keys.

Call Forwarding

Call forwarding is a method for automatically forwarding calls. The following types of calls are handled separately:

- Calls to single telephones: Call forwarding for subscribers (t) in the telephone (also for standard VoIP telephones) or call forwarding for subscribers (t) in the PBX (only for system telephones)
- Calls to groups: Call forwarding for groups in the PBX, only for system telephones
- Calls to connections: Call forwarding for external numbers in the PBX, only for system telephones

Call Forwarding Variants

The telephone supports several different variants of call forwarding.

- Call forwarding for subscribers (scr.)
- Call forwarding for subscribers (scr.) in the PBX
- Call forwarding for external numbers
- Call forwarding for groups

The different call forwarding types are described in the following chapters.

Please refer to the PBX Advanced Information for instructions about how to set up call forwarding for groups.

Call Forwarding for Subscribers

When subscriber call forwarding is used, internal and external calls to a single telephone can be forwarded to other internal telephones or external connections. As a result, a subscriber or the substitute can take these calls on another telephone.

Subscriber call forwarding ensures that the subscriber in question or the substitute is always available at his own phone number, even if the subscriber cannot take a call on his own telephone.

Important: Subscriber call forwarding does not function for incoming group calls to your telephone. If you want to prevent your telephone from ringing unanswered when calls to the group in which you belong come through, you need to log yourself out of the group or set up group call forwarding.

Note:

If you want to set up subscriber call forwarding on the destination telephone, use the follow-me function.

Subscriber call forwarding is switched on in the telephone. Forwarded calls are saved in the call log. The function is also available for standard VoIP telephones

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Proceed as follows:

- Using the telephone (function key or **> Functions > Call fwd. (scr.)**)

Requirements:

- For internal destination numbers: Telephone connected to a PBX.

Operation

- **switch on:** Switches on call forwarding for subscribers.
- **switch off:** Switches off call forwarding for subscribers (no further action is required).

Forwarding type

- **unconditional:** Switches "Call fwd. unconditional" (unconditional call forwarding) on or off for subscribers
- **on busy:** Switches "Call fwd. on busy" (call forwarding on busy) on or off for subscribers.
- **not responding:** Switches call forwarding "on no reply" on or off for subscribers.

Notes:

A different destination can be configured for each of the three types of call forwarding.

If "Call fwd. on busy" and "Call fwd. on no reply" are enabled at the same time, both will apply. The call is forwarded to the different, appropriate phone numbers, depending on which situation occurs – the telephone is busy or nobody answers.

If "Call fwd. unconditional" is enabled in addition to the "Call fwd. on busy" and/or "Call fwd. on no reply" options, all calls are forwarded immediately. In this case, the other call type forwarding are overridden, but remain enabled. As soon as "Call fwd. unconditional" is switched off, all the other types of call forwarding that are enabled become effective again.

Account

Select the account for which call forwarding is to be configured.

Forwarding destination

Enter the forwarding destination either by entering it manually or by selecting a name via tapping on .

Function Key for Switching Off All Call Forwarding for Subscribers

Press the key assigned to **Call fwd. (scr.)** to switch call forwarding for subscribers for the configured destination on or off, or toggle, in the telephone.

Press a single key assigned to **Call fwd. (scr.), deactivate all** to switches off all currently enabled call forwardings for the subscriber.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key (not applicable if assigned with "Call fwd. (scr.), deactivate all":

red	Subscriber call forwarding is enabled for the configured destination.
yellow	Subscriber call forwarding is enabled for a different destination.
off	Subscriber call forwarding is disabled.

Requirements for using the function:

- for internal destination numbers: Telephone connected to a PBX.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Call fwd. (scr.), deactivate all**
- Using the telephone by selecting **Call fwd. (scr.), deactivate all**

Note: For further information about the general procedures when assigning function keys, see Function Keys.

Function Key for Call Forwarding for Subscribers

Press the key assigned to **Call fwd. (scr.)** to switch call forwarding for subscribers for the configured destination on or off, or toggle, in the telephone.

Press a single key assigned to **Call fwd. (scr.), deactivate all** to switches off all currently enabled call forwardings for the subscriber.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key (not applicable if assigned with "Call fwd. (scr.), deactivate all":

red	Subscriber call forwarding is enabled for the configured destination.
yellow	Subscriber call forwarding is enabled for a different destination.
off	Subscriber call forwarding is disabled.

Requirements for using the function:

- for internal destination numbers: Telephone must be connected to a PBX.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Call fwd. (scr.)**
- Using the telephone by selecting **Call fwd. (scr.)**

Notes:

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Forwarding type

unconditional: "call forwarding (unconditional)" function for the subscriber

on busy: "call forwarding (on busy)" function for the subscriber

not responding: "call forwarding (if not responding)" function for the subscriber

Account

Select the account.

Forwarding destination

Enter destination number

Important: Enter phone numbers exactly as when dialling, for example, always enter external numbers with a leading exchange line access number.

Call Forwarding for Subscribers in the PBX

When subscriber call forwarding is used, internal and external calls to a single telephone can be forwarded to other internal telephones or external connections. As a result, a subscriber or the substitute can take these calls on another telephone.

Subscriber call forwarding ensures that the subscriber in question or the substitute is always available at his own phone number, even if the subscriber cannot take a call on his own telephone.

Note: The function is switched on in the PBX. The telephone does not have any messages about forwarded calls. The calls are not saved in the call log.

Proceed as follows:

- Using the telephone (function key or **> Functions > Call fwd. (scr. in PBX)**)

Requirements:

- Telephone is system telephone on the PBX

Operation

- **switch on:** Switches on call forwarding for subscribers.
- **switch off:** Switches off call forwarding for subscribers (no further action is required).

Forwarding type

- **unconditional:** Switches "Call fwd. unconditional" (unconditional call forwarding) on or off for subscribers.
- **on busy:** Switches "Call fwd. on busy" (call forwarding on busy) on or off for subscribers.
- **not responding:** Switches call forwarding "on no reply" on or off for subscribers.

Notes:

A different destination can be configured for each of the three types of call forwarding.

If "Call fwd. on busy" and "Call fwd. on no reply" are enabled at the same time, both will apply. The call is forwarded to the different, appropriate phone numbers, depending on which situation occurs – the telephone is busy or nobody answers.

If "Call fwd. unconditional" is enabled in addition to the "Call fwd. on busy" and/or "Call fwd. on no reply" options, all calls are forwarded immediately. In this case, the other call type forwarding are overridden, but remain enabled. As soon as "Call fwd. unconditional" is switched off, all the other types of call forwarding that are enabled become effective again.

Forwarding destination

Enter the forwarding destination either by entering it manually or by selecting a name via tapping on .

Important:

If a destination number is adopted from the telephone book, it must be changed, if necessary, by hand as the adopted phone number could contain invalid special characters (permitted are the special characters # and *).

Internal destination: The internal phone number without ** must be entered.

External destination: The exchange line access number must always be entered if the automatic exchange line request is disabled. If the automatic exchgange line request is enabled, the phone number must always be entered without exchange line access number.

Function Key for Call Forwarding for Subscribers in the PBX

Press the key to which **Call fwd. (scr. in PBX)** has been assigned to switch call forwarding for subscribers for the configured destination in the PBX on or off, or toggle it.

The key assigned to switch off all call forwarding for subscribers (**Call fwd. (scr.), deactivate all**) switches off call forwarding for subscribers.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key (not applicable if assigned with "deactivate all"):

red	Subscriber call forwarding is enabled for the configured destination.

LED signalling on the key (not applicable if assigned with "deactivate all"):

yellow	Subscriber call forwarding is enabled for a different destination.
off	Subscriber call forwarding is disabled.

Requirements for using the function:

- Telephone is system telephone on the PBX

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Call fwd. (scr. in PBX)**
- Using the telephone by selecting **Call fwd. (scr. in PBX)**

Notes:

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Forwarding type

unconditional: "call forwarding (unconditional)" function for the subscriber

on busy: "call forwarding (on busy)" function for the subscriber

not responding: "call forwarding (if not responding)" function for the subscriber

Forwarding destination

Enter destination number

Important:

If a destination number key is adopted from the telephone book, it must be changed, if necessary, by hand as the adopted phone number could contain invalid special characters (permitted are the special characters # and *).

Internal destination: The internal phone number without ** must be entered.

External destination: The exchange line access number must always be entered if the automatic exchange line request is disabled. If the automatic exchgange line request is enabled, the phone number must always be entered without exchange line access number.

Call Forwarding for External Numbers

When call forwarding for external numbers is used, calls directed to an external number (dialled by an external caller) are rerouted to other external connections. This allows these calls to be taken on another telephone, for example, on a mobile phone if no one can take the call internally.

Call forwarding for external numbers can be configured for the current configuration or for the permanent configuration.

The call forwarding for external numbers is set up in the PBX, using the system telephone, and is executed there.

Important: Call forwarding is only possible for external numbers if the telephone is a system telephone on the PBX. Calls for subscribers can only be forwarded to other internal telephones if the telephone is called via the same PBX.

Note: If you also want to forward internal calls, use call forwarding for subscribers instead of call forwarding for external numbers. This also allows calls to be forwarded to internal telephones.

Proceed as follows:

- Using the telephone (function key or **> Functions > Call fwd.: MSN/DDI**)

Requirements:

- Telephone is system telephone on the PBX
- Features to be configured by the network provider **(fwd, keypad)** permission granted in the PBX

Operation

- **switch on:** Switches on call forwarding for external numbers.
- **switch off:** Switches off call forwarding for external numbers (no further action is required).

Forwarding type

- **unconditional:** Switches on or off "Call fwd. unconditional" (unconditional call forwarding) for external numbers.
- **on busy:** Switches on or off call forwarding for external numbers on busy.
- **not responding:** Switches on or off call forwarding for external numbers on no reply.

Notes:

A different destination can be configured for each of the three types of call forwarding.

If "Call fwd. on busy" and "Call fwd. on no reply" are enabled at the same time, both will apply. The call is forwarded to the different, appropriate phone numbers, depending on which situation occurs – the telephone is busy or nobody answers.

If "Call fwd. unconditional" is enabled in addition to the "Call fwd. on busy" and/or "Call fwd. on no reply" options, all calls are forwarded immediately. In this case, the other call type forwarding are overridden, but remain enabled. As soon as "Call fwd. unconditional" is switched off, all the other types of call forwarding that are enabled become effective again.

Forwarding configuration

- **current configuration:** Call forwarding for external numbers is switched on or off in the current configuration.
- **permanent configuration:** Call forwarding for external numbers is switched on or off in the permanent configuration.

Note: Call forwarding can only be switched on for the current configuration if all call forwarding is switched off for the permanent configuration.

Number to forward

Enter the PBX‘s external number that is to be forwarded (without exchange line access number and without area code).

Forwarding destination

Enter the forwarding destination either by entering it manually or by selecting a name via tapping on .

Important: If the automatic exchange line request is disabled, the forwarding destination must always be entered with exchange line access number. If the automatic exchange line request number is enabled, the exchange line access number must always be entered without exchange line access number.

Function Key for Call Forwarding for External Phone Numbers

Press the key assigned to **Call fwd.: MSN/DDI** to switch call forwarding of external numbers for the configured destination on or off.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key:

red	In the selected configuration, call forwarding for external numbers is switched on in the public exchange/PBX for the configured destination.
yellow	Call forwarding for external numbers has been configured for busy lines or when there is no reply. However, this is overridden by "Call fwd. unconditional" (unconditional call forwarding) for external numbers.
yellow	Call forwarding for external numbers is switched on in the public exchange/PBX for a different destination or a different configuration.

LED signalling on the key:

off Call forwarding for external numbers is switched off in the public exchange/PBX.

Important: When operating the function via the key, the success/failure of the operation is indicated by a change in colour on the LED. During the configuration in the public exchange (this takes from a few seconds up to a minute), the LED blinks yellow.

Requirements for using the function:

- Telephone is system telephone on the PBX
- Features to be configured by the network provider **(fwd, keypad)** permission granted in the PBX

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Call fwd.: MSN/DDI**
- Using the telephone by selecting **Call fwd.: MSN/DDI**

Notes:

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Forwarding type

unconditional: "call forwarding (unconditional)" function for the external numberSelection of the system telephony account

on busy: "call forwarding (on busy)" function the external number

not responding: call forwarding (if not responding)" function for the external number

decide each time a key is pressed

Forwarding configuration

current configuration: Call forwarding for external numbers is switched on or off or switched over only in the current configuration

permanent configuration: Call forwarding for external numbers is switched on or off or switched over in the permanent configuration

decide each time a key is pressed

Account

Selection of the system telephony account

MSN/DDI to redirect

Enter the external number of the PBX (without the exchange line access number and without the area code

Forwarding destination

Enter destination number

Important: If the automatic exchange line request is disabled, the forwarding destination must always be entered with exchange line access number. If the automatic exchange line request number is enabled, the exchange line access number must always be entered without exchange line access number.

Blacklist

Calls from subscribers whose phone number has been entered in the blacklist, are not displayed in the phone and the calling subscriber hears the busy tone.

Settings Configuration Manager Blacklist

Proceed as follows:

- Using the Configuration Manager (page **Settings > COMfortel > Blacklist**)

☑ ☐ **Blacklist**

☑ All phone numbers in the list are blocked.

☑ ☐ **Overwrite oldest entry**

☑ If the blacklist is full, the oldest entry will be automatically overwritten.

Configure

Opens the page for configuring the list entry.

New

A new phone number is added to the blacklist.

Delete

Deletes the entries marked in the list.

Settings Telephone Blacklist

Proceed as follows:

Using the telephone (page **> Settings > More > Blacklist**)

☑ ☐ **Blacklist**

☑ All phone numbers in the list are blocked.

☑ ☐ **Overwrite oldest entry**

☑ If the blacklist is full, the oldest entry will be automatically overwritten.

CREATE ENTRY

A new phone number is added to the blacklist. By long tapping on the entry, it can be edited or deleted.

Function Key for Blacklist

Press the key assigned to **Blacklist** to enable or disable the entrie blacklist. By long pressing the key assigned to **Blacklist** during a call, the phone number of the caller will be taken over into the blacklist.

LED signalling on the key:

Red	Blacklist is enabled

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Blacklist**
- Using the telephone by selecting **Blacklist**

Note: For further information about the general procedures when assigning function keys, see Function Keys.

Control by External Apps

You can control programmable function keys and the corresponding LEDs by externally developed apps, e. g. apps for house automation. For information about the available apps contact your system administrator.

Function Key for Control by External App

Press the key to enable an externally developed app to control the function key and the corresponding LEDs.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED. For information about LED signalling on a key contact your system administrator.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Controlled by external app**
- Using the telephone by selecting **Controlled by external app**

Notes:

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

App to start

Configuration manager: Enter the name of the app that controls the function key

Telephone: Tap on **Select** and select the app from the list. that controls the function key

Telephone Line

Use the **Telephone line** function to assign a function key to a specific account and then use that function key to initiate outgoing calls through this account.

In addition, a function key assigned to **Telephone line** can be used to monitor incoming calls and put them on hold when required.

Several function keys can be configured for the same account.

Note: The **Telephone line** function uses only your own accounts, which have been configured in the telephone (see chapter Settings > Accounts).

Function Key for the Telephone Line

Press the key assigned to **Telephone line** to initiate an outgoing call through the account (assuming there are no upcoming incoming calls for the assigned account).

If you press the key assigned to the telephone line during an incoming call through the assigned account then, when you pick up the receiver, the system will put the caller on hold.

All the keys assigned to **Telephone line** for the same account form one group. If a connection is established through the account, one of the keys in this group, that is not yet assigned to a call, will automatically be selected to represent the connection state.

If you have used the keys to put several callers on hold (LED lights up in yellow), you can connect the caller's calling card with the toolbar (LED flashes yellow) by pressing the keys repeatedly.

Notes:

The business card connected to the toolbar is active.

Business cards have different outline colours: green for the active business card, light blue for a business card that requires attention, and grey for a business card that is shown only for informational purposes.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key (when assigned to an internal subscriber number):

red	A call is currently being held on the telephone or the user is attempting to establish a connection.
red (blinking)	The telephone is now being called, and the caller's business card is not linked with the toolbar (in the background). If you pick up the receiver and press the key, this puts the call on hold.
red (blinks twice)	The telephone is now being called, and the caller's business card is linked with the toolbar. If you pick up the receiver and press the key, this puts the call on hold.
yellow	The call is held locally in the telephone and the caller's business card is not connected to the toolbar. Press the key twice to pick up the call.

LED signalling on the key (when assigned to an internal subscriber number):

yellow (blinks twice)	The call is held locally in the telephone and the caller's business card is connected to the toolbar. Press the key once to pick up the call.
yellow (blinks quickly)	The telephone dials the phone number after you press the function key.
off	No call is pending. Press the key to initiate a call through the assigned account. Timeout: The function key is blocked for approximately 2 to 3 seconds after a call over a **Telephone line** has been completed.

Notes:

You cannot run this function if the account stored for a function key has been deleted. When you press the key, a dialogue opens, in which you can assign a new account to the key. Tap on **New account** next to the Account ID, select a new account from the list field and then tap on **Assign**.

The **Telephone Line** function fills both key levels. If one level is filled, the other levels are also filled automatically.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Telephone line**
- Using the telephone by selecting **Telephone line**

Notes:

The function can only be set up on a programmable function key that has an LED (not on a touch function key)

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Account

Selection of the account

MSN

PBX account: Enter phone number

SIP account: Enter the phone number of the account or, in the case of SIP trunking, the DDI main number and Direct Dial In without prefix

Announcement Before Answering for Group (System Telephone)

The announcement before answering ("Announcement bef. answer") function enables the caller to be welcomed with an automatic announcement before the call is accepted. (Charges apply for the external caller.)

Note: With some PBXs the function is limited to external callers (see Advanced Information of the PBX).

More Information on "Announcement Before Answering" for Group

You switch the "Announcement before answering" function on separately for each group.

Two types of "Announcement before answering" are available:

Announcement before answering on busy

The caller hears the announcement for "Announcement before answering" only if all the group members are busy. After this, the caller is automatically connected to the appropriate queue.

Announcement before answering always

The caller hears the announcement no matter whether the group members are being called or are busy. If all the group members are busy, the caller is automatically connected to the appropriate queue.

Note: Using the Configuration Manager on the PBX you can define whether the telephones set to the "always" variant ring during or after an announcement. You can also define whether the caller hears on-hold music or the call tone after hearing the announcement.

Switching Announcement Before Answering for Group On/Off

Proceed as follows:

- Using the telephone (function key or **> Functions > Announcement bef. answer**)

Requirements:

- Telephone is system telephone on the PBX
- The telephone is a member of at least one group configured in the PBX
- Text before answering announcement present in the PBX and assigned to the group

1. In the **Operation** list field, select one of the following options:

   switch off: Switches off announcement before answering for the group.

   on busy: Switches on announcement before answering "on busy" for the group.

always: Switches on continuous announcement before answering for the group.

2. Select the group:
   - Manual entry: In the **Group** entry field, enter the group number.
   - Selection: Tap on and select the group based on its name.
3. Tap on **Execute**.

Function Key for Announcement Before Answering

Press the key while the telephone is the idle state to switch announcement before answering for the configured group on or off or to toggle.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key:

green	The announcement before answering function is enabled for the configured group.
off	The announcement before answering function is disabled for the configured group.

Requirements for using the function:

- Telephone is system telephone on the PBX
- Text before answering announcement present in the PBX and assigned to the group

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Announcement bef. answer**
- Using the telephone by selecting **Announcement bef. answer**

Notes:

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Operation

switch off: switch off an announcement before answering for the group

on busy: switch on an announcement before answering "busy" for the group

always: switch on a continuous announcement before answering for the group

toggle on busy: switch an announcement before answering "busy" for the group on or off

toggle always: switch a continuous announcement before answering for the group on or off

Account

Selection of the system telephony account

Group

Enter group number

Door Functions (System Telephone)

If a door terminal system is connected to the PBX's interface you can run the following functions. A call with the door (intercom) can be held from any telephone. During a call to the door, the door can be opened (open door) and a stairwell light controlled by switching a relay (switch on light).

These functions can be performed on the system telephone even without a pending door call.

Using the Door function

Proceed as follows:

- Using the telephone

Requirements:

- Telephone is system telephone on the PBX
- Phone number configured in the PBX for the door station
- Relays configured in the PBX for opening the door and the stairwell light.
- **Open door** permission granted in the PBX

To operate the door function, press the **function key** configured for the door function.

Alternatively, proceed as follows:

1. Tap: **> Functions > Door function**

2. In the **Operation** list field, select one of the following options:

   open: Opens the door.

   switch on light: Switches the stairwell light on.

   open door - switch on light: Opens the door and switches the stairwell light on.

3. Select a door:

   - Manual entry: Enter a phone number in the **Door number** entry field.
   - Selection: Tap on and select a door.

4. Tap on **Execute**.

Notes:

The **Switch on light** door function switches on the relay of the corresponding door station separately at the time configured in the PBX.

To establish a call connection with the door station, you must press a suitably configured speed dialling key.

Own Telephone Rings (Door Call) – Opening Door

Proceed as follows:

- Using the telephone

Requirements:

- Telephone is system telephone on the PBX
- Phone number configured in the PBX for the door station
- Relays configured in the PBX for opening the door and the stairwell light.
- **Open door** permission granted in the PBX

When you receive a door call, open the door by pressing the **function key** that has been configured to open the door.

Alternatively, proceed as follows:

- Tap on .

  The door is opened.

Note: If the relay of the associated door station is used for switching the stairwell light, it can be switched on by tapping on within the time defined in the PBX.

Door Knock – Opening Door

During a call, you can generally handle an incoming door call as an incoming external subscriber. In particular, you can reject, ignore, or accept, a door call, and open the door for the visitor, by using the door opening function.

Proceed as follows:

- Using the telephone

Requirements:

- Telephone is system telephone on the PBX
- Phone number configured in the PBX for the door station
- Relays configured in the PBX for opening the door and the stairwell light.
- **Open door** permission granted in the PBX
- Call waiting must be enabled

When you receive a door call, open the door by pressing the **function key** that has been configured to open the door.

Alternatively, proceed as follows:

- Tap on .

  The door is opened.

Note: If the relay of the associated door station is used for switching the stairwell light, it can be switched on by tapping on within the time defined in the PBX.

Function Key for the Door Functions

Press the key to switch on the door opening function and/or the light.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

Note: To use the intercom function, you can also assign the door number to a speed dialling key.

LED signalling on the key:

green	The door opening function and/or the light are switched on.
yellow	The light is switched on.
off	None of the functions configured on the key are enabled.

Requirements for using the function:

- Telephone is system telephone on the PBX
- **Open door** permission granted in the PBX

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Door function**
- Using the telephone by selecting **Door function**

Notes:

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Operation

open: open the door

switch on light: switch the stairwell light on

open door - switch on light: open the door and switch the stairwell light on

decide each time a key is pressed

Door number

Enter phone number

Waiting Field Function (System Telephone)

Callers can be parked in a waiting field. This can either happen automatically or when you press a key. They are then retrieved individually and their calls forwarded.

Important: The **Waiting field** function is only available in the COMpact 4000, COMpact 5000/R and COMmander 6000/R/RX PBXs.

Configuring a Waiting Field

You configure a waiting field as described below:

- Use the Configuration Manager in the PBX to configure automatic call acceptance for the waiting field.

- Use the Configuration Manager on the PBX or the PBX's configuration software to select a system telephone to be a waiting field reception.

Notes:

Before you can operate the waiting field with multiple waiting field receptions, a group must be configured and selected as the waiting field reception. The maximum number of waiting field receptions is limited by the number of possible group members.

If multiple system telephones have been configured and enabled as waiting field receptions, more than one employee can operate the waiting field at the same time. Incoming calls and waiting callers are then signalled in all the waiting field receptions. However, if someone is talking to a caller in one of the waiting field receptions, this caller is not signalled in the other waiting field receptions.

- In each waiting field reception, you will need to assign the **Shared line** function to one or more function keys (waiting field keys). These keys are then used to monitor and process the exchange line calls.

- After you have configuring a waiting field key on a system telephone, the waiting field reception function on that system telephone in question is enabled automatically and can be switched on and off, if necessary.

Process of Call Acceptance in Waiting Field

Call acceptance in the waiting field is carried out as follows:

- If all of the waiting field receptions have been switched off, the telephones ring according to normal call distribution.
- After one or more waiting field reception telephones are switched on, calls that belong to the waiting field are signalled on the key (waiting field keys), on the switched on waiting field reception telephones, that have been assigned with the **Shared line** function.

Important:

After the waiting field reception telephone is switched on, any subscriber call forwarding configured for the telephone, parallel calls, and the do-not-disturb function, are switched off. These functions (for example, call

forwarding on an answering machine) do not become available again until the waiting field reception is switched off (on the telephone). The function in question (except parallel calling) must be switched on again.

- The caller can be accepted normally by picking up the receiver or placed in the waiting field by pressing the associated waiting field key. If the automatic call acceptance is set to "on busy" or "according to a time", callers are also automatically placed in the waiting field.
- When a caller is put into a waiting field, they hear the on-hold music. If a group is defined as a waiting field reception, and the "Announcement before answering" function is enabled, the caller first hears first the "Announcement before answering" announcement.
- A caller is kept a max. of 16 minutes without interruption in the waiting field. If the waiting time is not interrupted by a call to the waiting caller or the call is forwarded, the connection is disconnected.
- Press the corresponding waiting field key to initiate a call with a caller in the waiting field.
- An external caller in the waiting field can be transferred internally as normal. If the line of the person being called is busy, the external subscriber can be placed in that person's queue. If the person being called does not accept the call, the external caller is put back in the waiting field.
- If no one is waiting in the waiting field, you can make calls as normal and use the keys on the telephone without any restrictions.
- Some of the keys have no function for as long as information about a call in the queue is visible on the display (LED lights up in yellow). In this case, as soon as you pick up the receiver, you are connected to the call in the queue. You can prevent this by pressing the **Home** key. After this, the LED lights up in red and the display is in the idle state. Now you can make a call as normal, for instance, by selecting a phone number from the telephone book.

Switching Waiting Field Reception On/Off

Proceed as follows:

- Using the telephone (function key or **> Functions > W.fld.reception**)

Requirements:

- Telephone has been selected in the PBX as a waiting field reception

1. In the **Operation** list field, select one of the following options:

   switch on: Enables the waiting field reception.

   switch off: Disables the waiting field reception.

   Important:

   It is only possible to switch a waiting field reception off if no callers are present in the waiting field. If more than one waiting field reception is in use, this limitation only applies when only one waiting field reception is switched on.

   When the waiting field reception is switched off, the subscriber is automatically logged out of the waiting field incoming group; the subscriber is automatically logged on again when the waiting field reception is switched on again.

   ---

2. Tap on **Execute**.

Function Keys for a Shared Line

Press the **Shared Line** key that has been assigned to place a caller (indicated by the key) into the waiting field. Press the same key to establish a connection with the caller from the waiting field. Pressing the key depends on the current status as displayed by the LED next to the key.

LED signalling on the key:

red	A call is currently being held on the telephone or the user is attempting to establish a connection.
red (blinking)	The telephone is now being called, and the caller's business card is not linked with the toolbar (in the background). Pick up the receiver and press the key, to put this call in the waiting field.
red (blinks twice)	The telephone is now being called, and the caller's business card is linked with the toolbar. Pick up the receiver and press the key, to put this call in the waiting field.
green	The call is being held in the waiting field and the caller's business card is not connected with the toolbar (in the background).
green (blinks twice)	The call is being held in the waiting field and the caller's business card is connected with the toolbar (in the background).
yellow	The call is held locally in the telephone and the caller's business card is not connected to the toolbar. Press the key twice to pick up the call.

LED signalling on the key:

yellow (blinks twice)	The call is held locally in the telephone and the caller's business card is connected to the toolbar. Press the key once to pick up the call.
yellow (blinks quickly)	The telephone dials the phone number after you press the function key.
off	No call is pending. Press the key to initiate a call through the assigned account. Timeout: The function key is blocked for approximately 2 to 3 seconds after a call over a **Shared Line** has been completed.

Notes:

If you press the key to place a caller in the waiting field, the LED next to the key lights up yellow. If a caller is placed in the waiting field either automatically or by another waiting field reception, the LED then lights up red.The function can only be set up on a programmable function key that has an LED (not on a touch function key).

The **Shared Line** function fills both key levels. If one level is filled, the other levels are also filled automatically.

Requirements for using the function:

- Telephone is system telephone on the PBX
- The telephone has been selected in the PBX as a waiting field reception

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Shared Line**
- Using the telephone by selecting **Shared Line**

Notes:

The function can only be set up on a programmable function key that has an LED (not on a touch function key).

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Account

Selection of the account

URL of shared line

For PBX account: internal number

For SIP account: account phone number

Important: You cannot assign calls via the DDI for SIP trunking accounts and ISDN PTP connections. Do not enter a value in the **URL of shared line** entry field. The calls are assigned via the account.

Function Key for Switching Waiting Field Reception On/Off

Press the key while the telephone is in idle state to switch the waiting field reception on or off or to toggle.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key:

green	The waiting field reception is enabled.
off	The waiting field reception is disabled.

Requirements for using the function:

- The telephone has been selected in the PBX as a waiting field reception

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **W.fld.reception**
- Using the telephone by selecting **W.fld.reception**

Notes:

The function can only be set up on a programmable function key that has an LED (not on a touch function key).

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Account

Selection of the account

Speed Dialling

With the speed dialling function you can define a function key with not only internal and external numbers, but also with programming digits on the PBX. You can dial the saved digits easily by simply pressing the key.

Options for Using Speed Dialling Keys

Speed dialling keys can be used in the following ways:

To Dial a Telephone Number

The phone number will be dialled automatically when a speed dialling key is pressed. If the receiver is hung up, the saved phone number is first used for dial preparation.

If a speed dialling key is pressed during a call, a query call is placed and the saved phone number is dialled immediately.

To Dial a Part of a Telephone Number

The telephone enables you to assign a part of a phone number to a speed dialling key (for example, telephone provider prefixes). You can then assemble the phone number parts by pressing several speed dialling keys in sequence. The names assigned to the phone numbers are shown one after the other on the display.

Assignment Overview

Speed dialling keys assigned to internal subscriber and group numbers allow the user to view the LEDs and gain an overview of which subscribers and groups are active or busy.

Pick-Up and Call Pick-Up

Speed dialling keys defined with internal subscriber and group phone numbers enable the pick-up function for these subscribers and groups. If the LED next to the key is blinking red because the saved phone number is being called, you can take the call on your telephone by pressing the speed dialling key and then confirming.

If a subscriber allows call take-over (for example, on an answering machine), you can still take the call on your telephone in the same manner even after it has already been accepted.

Display of the Registration Status

If the registration status display is enabled, the individual registration status of the subscribers is shown by the LEDs of the speed dialling keys assigned to internal VoIP subscribers. If a particular VoIP subscriber is not registered at the PBX, their LED will blink yellow.

How to switch the registration status on or off is describe in the chapter Settings > Display > Settings Configuration Manager Display.

Function Key for Speed Dialling

Press the key while the telephone is in the idle state to transfer the phone number saved in the key to dial preparation (can be used as an additional number).

Exception: If the saved phone number is an internal phone number, and is currently being called, you will pick up this call.

After picking up the receiver, press the key to dial the phone number saved in the key.

Press the key during a call to put the active call partner on hold and to dial the phone number saved in the key.

In addition, when a subscriber or a group number is defined on the first key level, the status of the subscriber or group is indicated by the corresponding LED.

LED signalling on the key (when assigned to an internal subscriber number):

red	A call is in progress on the internal telephone. Press the key to initiate a call pick-up.
red (blinking)	The internal telephone is currently being called or a call is waiting on that telephone. Press the key to initiate a pick-up.
green	The internal telephone is configured as a boss telephone.
green (blinking)	A call is being made from the internal telephone and the call was not accepted.
yellow	The internal telephone is unreachable (do-not-disturb or subscriber call forwarding has been configured).

LED signalling on the key (when assigned to an internal subscriber number):

yellow (blinking)	Only when there is an internal VoIP subscriber and display of the registration status is switched on: The telephone is not registered on the PBX.
off	The internal telephone is available. Press the key to place a call.

LED signalling on the key (when defined with an internal group number):

red	Calls are in progress on all logged-in telephones or no telephone in the group is logged in.
red (blinking)	A logged in telephone is currently being called or a call is waiting on that telephone. Press the key to initiate a pick-up.
yellow	The group is not available (call forwarding is configured for the group).
off	The group is available. Press the key to place a call.

LED signalling on the key (when defined with an external number):

green (blinking)	A call was made from the external subscriber's telephone and the call was not accepted (assuming the external number is transferred).
red	The external subscriber is currently calling or a call is in progress.

Note: You cannot run this function if the account stored for a function key has been deleted. When you press the key, a dialogue opens, in which you can assign a new account to the key. Tap on **New account**next to

the Account ID, select a new account from the list field and then tap on **Assign**.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Speed dialling**
- Using the telephone by selecting **Speed dialling**

Notes:

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

BLF for SIP account

BLF for SIP account on/off. If the telephone is used with a SIP account, the SIP provider is crucial for whether a busy status is displayed.

Account

Selection of the account

Destination number

Enter the destination number or the user part of the SIP URI. The user part is the character string in front the @ character.

Local Answering Machine

This section describes how to set up and operate the functions on your answering machine (optional). It includes descriptions of what the functions do and – where possible – how to define these functions on programmable function keys.

Topics

– Forwarding a Caller to the Answering Machine (page 318)
– Answering Machine Accepts Call – Adopting Call (page 319)
– Announcement Settings in the Telephone (page 325)
– Recording a Call (page 327)
– Performing Remote Access (page 332)
– E-Mail (page 335)
– Answering Machine List (page 346)
– Voice Memos (page 355)

Local Answering Machine

The COMfortel 3600 IP provides an integrated answering machine. The COMfortel 2600 IP can be extended with an answering machine by plugging in an SD/SDHC card. The COMfortel 1400 IP can be extended with an answering machine by means of an activation in the Auerswald/FONtevo online shop (for a fee).

Note: Insertion of an external data storage device is not relevant for the answering machine of the COMfortel 3600 IP.

This section describes how to forward a caller to the answering machine an how to take over an active call from the answering machine. Furthermore, you can adjust the local answering machine to your needs. To that belongs the settings for call acceptance rules, the recording, the remote access and the e-mail settings.

The call recording function conversations calls to be recorded, for example, for later evaluation. In addition to the automatic recording of all calls, it is also possible to record calls manually. This operates independently of the automatic call recording function. This allows calls to be recorded in pieces.

Call recordings can be played from the answering machine list.

Remote access is used to access and operate the answering machine from another internal telephone or from an external telephone.

Requirements:

- Answering machine available

Proceed as follows for configuration:

- Forwarding the caller to the answering machine.
  - Using the telephone
- Taking over a call from the answering machine.
  - Using the telephone
- Setting the functions of the answering machine (Recording, Remote access, Call acceptance, Announcements (in the Configuration Manager) etc.).
  - Using the Configuration Manager (page **Settings > COMfortel > Answering machine**)
  - Using the telephone (page **> Settings > COMfortel > Answering machine**)
- Making announcement settings in the telephone.
  - Using the telephone (page **> Answering machine > Select answering machine list > Announcement** (in the list field in the upper left corner)
- Performing a recording.
  - Using the telephone (during a call)
- Performing remote access.
  - Using the telephone

Settings Configuration Manager Answering Machine

Proceed as follows:

- Using the Configuration Manager (page **Settings > COMfortel > Answering machine**)

Answering machine app

☑ ☐ **Automatic playback**

☑ New messages will be played back automatically after opening the answering machine list.

☑ ☐ **Call information**

☑ Date and time are played bacl before the message.

☑ ☐ **Separator tone**

☑ A separator tone is played back between messages.

Answering machine

☑ ☐ **TAM readiness**

☑ Calls will be accepted according to the configured call acceptance.

Listening-in

No listen-in: Switches listening-in off.

Listen-in with announcement: Switches listening-in on. The telephone's loudspeaker is already switched on when the announcement is played.

Listen-in without announcement: Switches listening-in on. The telephone's loudspeaker is disabled when the announcement is played.

☑ ☐ **Automatic call recording**

Notes:

Before you record a call you must always have the agreement of the call partner. If you record the call without the knowledge of the call partner, you make yourself liable to prosecution (breach of confidentiality of the spoken word). For data protection reasons, the call partner should be informed via an announcement that the call is being recorded.

Recordings whose recording time is shorter than 1 second are not saved.

Automatic call recording ends immediately when a query call has begun.

☑ Every call will be recorded automatically.

☐ Call recording must be started manually.

☑ ☐ **Announcement prior to call recording**

Note: Before you record a call you must always have the agreement of the call partner. If you record the call without the knowledge of the call partner, you make yourself liable to prosecution (breach of confidentiality of the spoken word).

☑ The selected announcement will be played back prior to call recording.

Announcement

Select the announcement prior to call recording from the previously configured announcements.

Remote access ☑ ☐

Remote access is used to access and operate the answering machine from another internal telephone or from an external telephone.

☑ With the konwlegde of the PIN which was configured for this, a remote access can be performed from a distant telephone.

Controlling the remote access (only COMfortel 3600 IP)

Note: Remote access via voice control is only possible in German.

Voice control and DTMF codes: Remote access will be performed via voice control and DTMF codes.

only DTMF codes: Remote access will be performed via DTMF codes.

Remote access PIN

Requirements:

- The telephone is not a system telephone on the PBX
- Remote access is enabled

Important: When operating as a system telephone on the PBX, the PBX specifies the remote access PIN. The remote access PIN matches the user PIN entered on the PBX.

Freely selectable 6 digit PIN. Allowed are digits (0-9) and special characters (*,#).

Quick remote access number

The caller who transmits this quick remote access number when they make a call can, if quick access is configured, access all the recordings saved on the answering machine without having to enter their remote access PIN.

Requirements:

- Remote access is enabled

Important:

Enter phone numbers exactly as when dialling, for example, always enter external numbers with a leading exchange line access number. (Exception: selected account **exchange line**).

Enter up to two quick remote access numbers. The following setting must also be made:

Account quick remote access number

Select the account.

Call acceptance

Call acceptance and the announcement assignment can be configured on a call-specific basis. The call acceptance rules determine which rules apply for which call type.

Call acceptance time (1...99 seconds)

Indicates after how many seconds the answering machine accepts a call.

☑ ☐ **Calls for group**

☑ Calls for groups in which the telephone is a member, are also accepted.

Recording time (1...99 minutes, 99->unlimited)

Note: Recordings whose recording time is shorter than 1 second are not saved.

Enter the maximum recording time. Provided that the caller does not hang up before, the answering machine will end the recording automatically after the entered time. If 99 has been entered, the recording time is unlimited.

Recording time for door calls (1...99 minutes)

Note: The recording of the door call cannot actively be ended. Therefore, every recording lasts as long as it has been defined here.

Indicates after how many minutes the answering machine ends a recording by itself.

Call acceptance rules

The call type acceptance can be configured depending on the call type. The system distinguishes between the following call types:

1. **Anonymous calls:** Does not transfer a phone number.
2. **From contact:** Caller transmits a phone number that is present in the telephone book.
3. **External calls:** Caller is an external subscriber.
4. **Internal calls:** Caller is an internal subscriber.
5. **Door calls:** Caller is any door terminal.
6. **Miscellaneous calls**

The sequence displayed above corresponds to the sequence that is taken into account in the settings. Relevant call types, for which call acceptance has not been configured, are ignored when there is an incoming call. Instead, the system searches for the next applicable call type. If no setting has been made for any of the relevant call types, the settings for the call type **Miscellaneous calls** are used.

☑ ☐ **Anonymous calls**

☑ ☐ **From contact**

☑ ☐ **External calls**

☑ ☐ **Internal calls**

☑ ☐ **Door calls**

☑ ☐ **Miscellaneous calls**

☑ Call acceptance rule for this call type is enabled. Additional settings must be made:

Note: For the call acceptance rule **From contact** the further settings must be made in the contacts.

Call acceptance

Announcement and recording: At the end, the caller hears the selected announcement and can then leave a message on the answering machine.

Announcement only: At the end, the caller hears the selected announcement; however, they cannot leave a message on the answering machine.

No call acceptance: The call from this caller is not accepted by the answering machine.. If remote access is enable, this option has no effect.

Announcement

Select the announcement.

The following call types are generally not taken by the answering machine:

- Callbacks
- InterCom calls
- Wake-up calls
- Alarm calls

The answering machine cannot differentiate between scheduled calls, fallback subscribers, or unsuccessful attempts to connect calls, and normal internal calls, and so it takes all these calls.

E-mail notification

☑ ☐ **E-mail notification**

Requirements:

- A set up e-mail account (see chapter Local Answering Machine > Settings Configuration Manager E-Mail Answering Machine)

Note: In the Configuration Manager under **Settings > COMfortel > E-Mail > Internationalisation**, you can set the language of the e-mails and customise a user-defined linguistic template for e-mails to suit your requirements.

☑ The answering machine sends a notification to the e-mail address, that was configured in the telephone, when new message are present.

☑ ☐ **Attach message as file**

☑ New messages are attached to e-mail notifications in *.wav format and then sent.

☑ ☐ **Mark message as read**

☑ If the messages have been sent successfully, they will be marked as read.

Announcement

Language

Note: Not available languages can also be uploaded in .fs format via the Configuration Manager.

Select the language in which the announcement is to be played.

Note: The phone language can also be provisioned (see **www.auerswald.de/service** under **Developer**).

Importing language file from data storage device (PC)

Language file import > Search

Requirements:

- A language file (*.fs) saved on a data storage device (PC)

Note: Up to four language files can be stored and used simultaneously.

Search and import the language file.

Importing language file from the Internet

Language file import > Import

Requirements:

- Existing Internet connection

Note: Up to four language files can be stored and used simultaneously.

Imports the corresponding language file.

Change announcement name

Requirements:

- At least one announcement

Mark the announcement > Configure. Enter the name in the entry filed.

Announcement import

Requirements:

- An announcement file (*.wav) saved on the hard disk

Import the announcement.

Announcement

Requirements:

- At least one announcement

The marked announcement will be deleted.

Settings Telephone Answering Machine

Proceed as follows:

- Using the telephone (page **> Settings > COMfortel > Answering machine**)

Answering machine settings

☑ ☐ **TAM readiness**

☑ Calls will be accepted according to the configured call acceptance.

☑ ☐ **Automatic playback**

☑ New messages will be played back automatically after opening the answering machine list.

☑ ☐ **Call information**

☑ Date and time are played bacl before the message.

☑ ☐ **Separator tone**

☑ A separator tone is played back between messages.

Listening-in

No listen-in: Switches listening-in off.

Listen-in with announcement: Switches listening-in on. The telephone's loudspeaker is already switched on when the announcement is played.

Listen-in without announcement: Switches listening-in on. The telephone's loudspeaker is disabled when the announcement is played.

Call acceptance

Call acceptance and the announcement assignment can be configured on a call-specific basis. The call acceptance rules determine which rules apply for which call type.

Call acceptance time (1...99 seconds)

Indicates after how many seconds the answering machine accepts a call.

☑ ☐ **Calls for group**

☑ Calls for groups in which the telephone is a member, are also accepted.

Call acceptance rules

The call type acceptance can be configured depending on the call type. The system distinguishes between the following call types:

1. **Anonymous calls:** Does not transfer a phone number.
2. **From contact:** Caller transmits a phone number that is present in the telephone book.
3. **External calls:** Caller is an external subscriber.
4. **Internal calls:** Caller is an internal subscriber.
5. **Door calls:** Caller is any door terminal.
6. **Miscellaneous calls**

The sequence displayed above corresponds to the sequence that is taken into account in the settings. Relevant call types, for which call acceptance has not been configured, are ignored when there is an incoming call. Instead, the system searches for the next applicable call type. If no setting has been made for any of the relevant call types, the settings for the call type **Miscellaneous calls** are used.

☑ ☐ **Anonymous calls**

☑ ☐ **From contact**

☑ ☐ **External calls**

☑ ☐ **Internal calls**

☑ ☐ **Door calls**

☑ ☐ **Miscellaneous calls**

☑ Call acceptance rule for this call type is enabled. Additional settings must be made:

Note: For the call acceptance rule **From contact** the further settings must be made in the contacts.

Call acceptance

Announcement and recording: At the end, the caller hears the selected announcement and can then leave a message on the answering machine.

Announcement only: At the end, the caller hears the selected announcement; however, they cannot leave a message on the answering machine.

No call acceptance: The call from this caller is not accepted by the answering machine.. If remote access is enable, this option has no effect.

Announcement

Select the announcement.

The following call types are generally not taken by the answering machine:

- Callbacks
- InterCom calls
- Wake-up calls
- Alarm calls

The answering machine cannot differentiate between scheduled calls, fallback subscribers, or unsuccessful attempts to connect calls, and normal internal calls, and so it takes all these calls.

Recording time (1...99 minutes, 99->unlimited)

Note: Recordings whose recording time is shorter than 1 second are not saved.

Enter the maximum recording time. Provided that the caller does not hang up before, the answering machine will end the recording automatically after the entered time. If 99 has been entered, the recording time is unlimited.

Recording time for door calls (1...99 minutes)

Note: The recording of the door call cannot actively be ended. Therefore, every recording lasts as long as it has been defined here.

Indicates after how many minutes the answering machine ends a recording by itself.

Call recording

☑ ☐ **Automatic call recording**

Notes:

Before you record a call you must always have the agreement of the call partner. If you record the call without the knowledge of the call partner, you make yourself liable to prosecution (breach of confidentiality of the spoken word). For data protection reasons, the call partner should be informed via an announcement that the call is being recorded.

Recordings whose recording time is shorter than 1 second are not saved.

Automatic call recording ends immediately when a query call has begun.

☑ Every call will be recorded automatically.

☐ Call recording must be started manually.

☑ ☐ **Announcement prior to call recording**

Note: Before you record a call you must always have the agreement of the call partner. If you record the call without the knowledge of the call partner, you make yourself liable to prosecution (breach of confidentiality of the spoken word).

☑ The selected announcement will be played back prior to call recording.

Announcement

Select the announcement prior to call recording from the previously configured announcements.

E-mail notification

☑ ☐ **E-mail notification**

Requirements:

- A set up e-mail account (see chapter Local Answering Machine > Settings Configuration Manager E-Mail Answering Machine)

Note: In the Configuration Manager under **Settings > COMfortel > E-Mail > Internationalisation**, you can set the language of the e-mails and customise a user-defined linguistic template for e-mails to suit your requirements.

☑ The answering machine sends a notification to the e-mail address, that was configured in the telephone, when new message are present.

☑ ☐ **Attach message as file**

☑ New messages are attached to e-mail notifications in *.wav format and then sent.

☑ ☐ **Mark message as read**

☑ If the messages have been sent successfully, they will be marked as read.

Remote access

Remote access ☑ ☐

Remote access is used to access and operate the answering machine from another internal telephone or from an external telephone.

☑ With the konwlegde of the PIN which was configured for this, a remote access can be performed from a distant telephone.

Controlling the remote access ▾ (only COMfortel 3600 IP)

Note: Remote access via voice control is only possible in German.

Voice control and DTMF codes: Remote access will be performed via voice control and DTMF codes.

only DTMF codes: Remote access will be performed via DTMF codes.

Remote access PIN

Requirements:

- The telephone is not a system telephone on the PBX
- Remote access is enabled

Important: When operating as a system telephone on the PBX, the PBX specifies the remote access PIN. The remote access PIN matches the user PIN entered on the PBX.

Freely selectable 6 digit PIN. Allowed are digits (0-9) and special characters (*,#).

Quick remote access number

The caller who transmits this quick remote access number when they make a call can, if quick access is configured, access all the recordings saved on the answering machine without having to enter their remote access PIN.

Requirements:

- Remote access is enabled

Important:

Enter phone numbers exactly as when dialling, for example, always enter external numbers with a leading exchange line access number. (Exception: selected account **exchange line**).

Enter up to two quick remote access numbers. The following setting must also be made:

Account quick remote access number

Select the account.

Language

Note: Not available languages can also be uploaded in .fs format via the Configuration Manager.

Select the language in which the announcement is to be played.

Note: The phone language can also be provisioned (see **www.auerswald.de/service** under **Developer**).

Forwarding a Caller to the Answering Machine

When you receive a call, proceed as follows:

1. Tap on .

Answering Machine Accepts Call – Adopting Call

Note: If the listen-in function has been enabled on the answering machine, the loudspeaker on the telephone is switched on for listening in when a call is accepted by the answering machine.

If the answering machine has already accepted the call, proceed as follows:

1. Pick up the receiver or press the **hook** key.

Function Key for Readiness

Press the key to which **TAM readiness** has been assigned to switch the readiness of the answering machine on or off, or toggle it.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key:	
green	The readiness of the answering machine is switched on.
off	The readiness of the answering machine is switched off.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **TAM readiness**
- Using the telephone by selecting **TAM readiness**

Notes:

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Operation

decide each time a key is pressed

Function Key for Message Forwarding via E-Mail

Press the key to which **TAM e-mail** has been assigned to switch the forwarding of messages via e-mail on or off, or toggle it.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key:

green	The forwarding of messages via e-mail is switched on.
off	The forwarding of messages via e-mail is switched off.

Requirements for using the function:

- A set up e-mail account (see chapter Local Answering Machine > E-Mail Settings)

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **TAM e-mail**
- Using the telephone by selecting **TAM e-mail**

Notes:

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Operation

decide each time the key is pressed

Function Key for Call Acceptance Rules

Press the key to which **TAM call acceptance** has been assigned to enable a call acceptance rule.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key:	
green	The call acceptance rule is enabled.
yellow	The call acceptance rule is enabled, but call acceptance is different from key assignment.
off	The call acceptance rule is disabled.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **TAM call acceptance**
- Using the telephone by selecting **TAM call acceptance**

Notes:

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Acceptance behaviour

Announcement and recording: The caller hears the announcement selected at the end and can then leave a message on the answering machine

Announcement only: The caller hears the announcement selected at the end; however, they cannot leave a message on the answering machine

No call acceptance: The call from this caller is not accepted by the answering machine

No rule: Switches the call acceptance rule off

Type of call

Default: call type is not taken into account

Anonymous calls: caller does not transmit a phone number

External calls: caller is an external subscriber

Internal calls: caller is an internal subscriber

Door calls: caller is any door

Any calls: Any caller

Account

Select the system telephony account

Announcement Settings in the Telephone

In the telephone, the announcement settings for the answering machine can be made in another location than in the Configuration Manager. This includes the on/off switching of the announcements, changing the announcement name, recording an announcemenet and deleting an announcement.

Proceed as follows:

- Using the telephone (page **> Answering machine > Select answering machine list > Announcement** (in the upper corner on the left in the list field))

Recording announcement

Select an empty announcement >

Enter the announcement name. Subsequently, the announcement will be initiated immediately. After ending the announcement tap .

Notes:

You have the option of re-recording the recorded announcement ( ) or listening to it again (▶).

To set the new announcement as the default announcement, tap on . If you press , the announcement is no longer used as the default announcement.

Recordings whose recording time is shorter than 3 seconds are not saved.

Announcement on/off

Requirements:

- At least one announcement

Select announcement >

The selected announcement will be used instead of the default announcement.

The selected announcement will be switched off and replaced by the default announcement.

Change announcemnet name

Requirements:

- At least one announcement

Select announcement > Menu **> Edit name**

Enter the announcement name.

Delete annuncement

Requirements:

- At least one announcement

Select announcememt >

The marked announcement will be deleted.

Recording a Call

If automatic call recording is enabled, every call you make is automatically recorded.

Notes:

Before you record a call you must always have the agreement of the call partner. If you record the call without the knowledge of the call partner, you make yourself liable to prosecution (breach of confidentiality of the spoken word). For data protection reasons, the call partner should be informed via an announcement that the call is being recorded.

The data storage device must be inserted before you can record a call (except for the COMfortel 3600 IP).

To start or end recording during a call, press the **function key** that has been configured for starting call recording.

Alternatively, during a call, proceed as follows:

1. Tap on to start recording the call.
2. Tap on to stop recording the call.

Notes:

Recordings whose recording time is shorter than 1 second are not saved.

Call recording ends immediately when a query call has begun.

Function Key for Starting Call Recording

Press the key during a call to switch call recording on. Press the key again to switch it off.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key:

red (blinking)	The current call is recorded.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **TAM call recording**
- Using the telephone by selecting **TAM call recording**

Notes:

The function can only be set up on a programmable function key that has an LED (not on a touch function key).

For further information about the general procedures when assigning function keys, see Function Keys.

Function Key for Automatic Call Recording

Press the key to switch the automatic call recording function on or off or toggle.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key:

red	Automatic call recording is enabled.
off	Automatic call recording is disabled.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **TAM automatic call recording**
- Using the telephone by selecting **TAM automatic call recording**

Notes:

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Operation

decide each time a key is pressed

Remote Access Variants

The answering machine supports two different remote access variants:

Remote access

The answering machine always accepts a call after the configured call acceptance time.

After the answering machine has accepted the call, you can initiate remote access during the announcement and the 10 seconds that follow (by pressing the * key + user remote access PIN + # key).

Remote access with quick access

The answering machine automatically accepts a call when the quick remote access number is transmitted and new messages are present. Otherwise, if no new messages are present, the time it takes to accept a call is 10 seconds (approx. 2 rings) longer than the configured call acceptance time.

As soon as the answering machine has accepted the call, you can start remote access. You do not need to enter the remote access PIN.

Notes:

When quick access is enabled, the call acceptance time varies only if the quick remote access number has been correctly transmitted. For all other callers, the answering machine accepts the call after the configured call acceptance time (no matter whether new messages are present or not).

Using quick access is not appropriate if you have configured settings on your PBX or telephone that cause the telephone to delay making a call (for example, subscriber call forwarding on no reply).

Configuring Remote Access

Remote access is configured as described below:

1. Switch remote access on.
2. Enter a remote access pin.
3. Configure remote access with quick access. This will simplify remote access for the user because they will no longer need to enter their remote access PIN. Their phone number will be transmitted instead. To do so, enter one or two quick remote access numbers.
4. If you want the answering machine to notify you as soon as a new message is present, configure message forwarding and switch it on when required.

Performing Remote Access

Remote access can either be performed via DTMF codes or via voice control and DTMF codes. Remote access via voice control and DTMF codes is only possible with the COMfortel 3600 IP and only in German.

Proceed as follows:

- Using a character string and/ or voice control on an external telephone
- Using a character string and/ or voice control on an internal telephone

Requirements:

- Remote access is configured
- The internal or external telephone supports DTMF dialling
- Knowledge of the remote access PIN
- When readiness is switched off on the answering machine: quick access and transfer of a previously entered quick remote access number by the calling telephone is configured

1. Call the telephone.

   After the set call acceptance time, the answering machine takes the call.

Note: When quick access is configured you also immediately hear the announcement for remote access (REMOTE.WAV) and can start remote access (without entering the PIN).

---

2. To start the remote access during the announcement, enter the following DTMF numbers: *** Remote access PIN #**

Note: If you mistype the remote access PIN you can start again by typing it again without * (asterisk).

3. Execute remote access by voice control and/or by entering DTMF codes

   0 or "Hilfe"

   1 or "Hauptmenü"

   2 or "Neue Nachrichten wiedergeben"

   3 or "Alle Nachrichten wiedergeben"

   4 or "vorherige Nachricht"

   5 or "Nachricht wiederholen"

   6 or "Nächste Nachricht"

   7 or "Nachricht löschen"

   8 or "Stop"

   8 or"Weiter"

   ***10** or "Voicemailbox ausschalten"

   ***11** or "Voicemailbox einschalten"

   ***70** or "Alle Nachrichten löschen"

   ***99**: Records a voice memo. Ring off to save the memo or press **#**. To cancel, press *.

Note: This request is currently not available with voice control.

Auflegen: Ends remote access.

Function Key for Remote Access

Press the key to which **TAM remote access** has been assigned to switch the answering machine's remote access function on or off, or toggle it.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key:	
green	Remote access to the answering machine is switched on.
off	Remote access to the answering machine is switched off.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **TAM remote access**
- Using the telephone by selecting **TAM remote access**

Notes:

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Operation

decide each time a key is pressed

E-Mail

You configure the settings for the answering machine's e-mail account independently of the settings for other e-mail accounts.

Note: Please contact your e-mail provider or system administrator to obtain the necessary information for the account settings.

E-mail internationalisation allows you to set the language of the e-mails sent by the answering machine and customise a user-defined language template for e-mails to suit your specific requirements.

Note: In the Configuration Manager, you can specify that messages are forwarded via e-mail under **Settings > COMfortel > Answering machine > E-mail notification**.

Proceed as follows for configuration:

- Managing language templates.
  - Using the Configuration Manager (page **Settings > COMfortel > E-mail > Internationalisation**)
- Setting the language.
  - Using the telephone (page **> Settings > COMfortel > More > E-mail**)
- Configuring the outgoing e-mail server.
  - Using the Configuration Manager (page **Settings > COMfortel > E-mail > Outgoing e-mail server**)
  - Using the telephone (page **> Settings > COMfortel > More > E-mail**)

Settings Configuration Manager E-Mail

Proceed as follows:

- Using the Configuration Manager (page **Settings > COMfortel > E-mail**)

Internationalisation

Language templates

There are several language templates available for e-mails that are sent by the answering machine. These language templates include different text elements (boilerplates) which are used to create the e-mails. The language templates are in *.xml file format.

- **General:** General text elements
- **Date and time:** Boilerplates with variables for date and time
- **Mailbox: New Message:** Boilerplates for information about a new message
- **Test e-mail:** Boilerplates for creating a test e-mail.

Language template

User-defined: The user-defined language template is automatically created in the language used by the Configuration Manager. The user-defined language template has the boilerplates described above, in the relevant language, and can be configured by the user.

Language Template (Language): The language template cannot be configured by the user

Import language template Import

Requirements:

- A language template (*.xml) saved on a data storage device (PC)

Notes:

The language template you import overwrites the user-defined language template in the telephone.

The file structure of the imported language template must match the file structure of the user-defined language template. For this reason, you should export the user-defined language template to your PC. Edit the text fields in the language template without changing the structure of the *.xml file. After you have imported the language template, your updates are displayed in the user-defined language template.

Select and save the language template. Subsequently, it will be displayed under **Language Template Management** as user-defined.

View language template

To view the individual boilerplates of a language template (language), mark the corresponding line in the table under **Language template management**, select a boilerplate in the list field in the middle of the line and then click **View**.

Configuring user-defined language template

To configured the individual boilerplates of a user-defined language template, mark the corresponding line in the table under **Language template management**, select a boilerplate in the list field in the middle of the line and then click **Configure**.

Note: The boilerplates used to create the language template are displayed in the left-hand column of the dialogue. You can make your changes in the right-hand column.

Exporting language templates

The language templates can be exported to configure it centrally, for example, and then import it into several telephones.

Mark the corresponding line in the table under **Language template management** and then click **Export**.

Note: The language template will be exported entirely. Therefore, it is not necessary to specifically select a boilerplate.

Import logo

Requirements:

- A logo (*.jpg) saved on a data storage device (PC)

Notes:

The logo must be provided in *.jpg file format and must be 160 x 60 pixels (width x height) in size.

The maximum permitted file size for a logo is 50 kB. The memory for all logos is limited to 500 kB.

If you do not import your own logo, the logo supplied with the system will be used instead.

Select and save the logo.

Note: To delete an imported logo, click **Delete** under **Delete logo**.

Outgoing e-mail server

Sender

Enter the sender‘s e-mail address.

Address

Enter the address of the SMTP outgoing e-mail server (server or IP address). You can obtain the address of the outgoing e-mail server from your e-mail provider or you can read it up in the Internet.

Port

Enter the port number of the outgoing e-mail server. You can obtain the port number from your e-mail provider or read it up in the Internet.

Authentication type

Select the authentication type that is required from the e-mail server.

- **No authentication**: Authentication is not performed.
- **Username/Password**: Authentication is performed with the username and password.
- **MD5 challenge-response**: Authentication is performed with an MD5 challenge-response. This means the password is not transferred in plain (unencrypted) text.

Username

Requirements:

- **Username/password** as selected authentification type

Enter the username. In most cases, the complete e-mail address of the sender must be entered. You will obtain further information about this from your e-mail provider.

Password

Requirements:

- **Username/password** was selected as authentification type

Enter the authentication password. It is the password of the sender‘s e-mail account.

Encryption

Encryption disabled: Switches encryption off.

Encryption (SSL) after STARTTLS: Switches encryption on after STARTTLS.

Encryption (SSL) immediately: Switches encryption immediately on.

Send e-mail in html format

E-mail will be formatted and send in html format. Thus, an e-mail can also contain e. g. images and hyperlinks.

E-mail recipient

Enter the e-mail address of the recipient.

Send test e-mail

Requirements:

- A set up e-mail account (see chapter Local Answering Machine > Settings Configuration Manager E-Mail)

Test e-mail will be sent.

Settings Telephone E-Mail

Proceed as follows:

- Using the telephone (page **> Settings > COMfortel > More > E-mail**)

E-mail

Language templates

There are several language templates available for e-mails that are sent by the answering machine. These language templates include different text elements (boilerplates) which are used to create the e-mails. The language templates are in *.xml file format.

- **General:** General text elements
- **Date and time:** Boilerplates with variables for date and time
- **Mailbox: New Message:** Boilerplates for information about a new message
- **Test e-mail:** Boilerplates for creating a test e-mail.

Language template

User-defined: The user-defined language template is automatically created in the language used by the Configuration Manager. The user-defined language template has the boilerplates described above, in the relevant language, and can be configured by the user.

Language Template (Language): The language template cannot be configured by the user

Sender

Enter the sender‘s e-mail address.

OUTGOING E-MAIL SERVER

Address

Enter the address of the SMTP outgoing e-mail server (server or IP address). You can obtain the address of the outgoing e-mail server from your e-mail provider or you can read it up in the Internet.

Port

Enter the port number of the outgoing e-mail server. You can obtain the port number from your e-mail provider or read it up in the Internet.

AUTHENTICATION

Authentication type

Select the authentication type that is required from the e-mail server.

- **No authentication**: Authentication is not performed.
- **Username/Password**: Authentication is performed with the username and password.
- **MD5 challenge-response**: Authentication is performed with an MD5 challenge-response. This means the password is not transferred in plain (unencrypted) text.

Username

Requirements:

- **Username/password** as selected authentification type

Enter the username. In most cases, the complete e-mail address of the sender must be entered. You will obtain further information about this from your e-mail provider.

Password

Requirements:

- **Username/password** was selected as authentification type

Enter the authentication password. It is the password of the sender‘s e-mail account.

☑ ☐ **Send e-mail in html format**

☑ E-mail will be formatted and send in html format. Thus, an e-mail can also contain e. g. images and hyperlinks.

Encryption

Encryption disabled: Switches encryption off.

Encryption (SSL) after STARTTLS: Switches encryption on after STARTTLS.

Encryption (SSL) immediately: Switches encryption immediately on.

E-mail recipient

Enter the e-mail address of the recipient.

Send test e-mail

Requirements:

- A set up e-mail account (see chapter Local Answering Machine > Settings Configuration Manager E-Mail)

Test e-mail will be sent.

Answering Machine List

The telephone's answering machine list can save up to 250 messages, voice memos, and call recordings, recorded by the answering machine, with the date and time of recording, and the phone number of the caller/call partner. The recordings are numbered consecutively. The last/latest recording is assigned the number 1.

You can return the call of someone who has called you directly from the answering machine list.

From the answering machine list you can also access the following functions:

- Access the answering machine archive
- Record announcements for the answering machine
- Record voice memos

Opening the Answering Machine List

You can open the answering machine list to check recordings (messages, voice memos and call recordings), or to delete them, or move them into an archive, or to record announcements.

The Message key LED shows you that there are recordings present in the answering machine list.

LED signalling on the message key:

off	No recordings present.

LED signalling on the message key:

red (blinking)	New recordings are present.
red	No new messages are present. Only recordings that have already been listened to are present.

Proceed as follows:

- Using the telephone (function key or **> Functions > TAM open**)

Alternatively, proceed as follows:

1. Press **> Answering machine**.

   This displays the available lists (this function is skipped if the other lists are empty).

2. Select the answering machine list.

Notes:

If you have enabled automatic playback under **> Settings > COMfortel > Answering machine**, the new recordings are played back automatically, in sequence, after you open the answering machine list. The latest recording is played first.

You can also enable or disable automatic playback from the answering machine list by pressing the Menu **Menu key** and tapping on **Settings**.

---

3. In the list field on the left, above the answering machine list, select one of the following options:

   All entries: Displays all the entries saved in the answering machine list.

Messages only: Only displays the messages saved in the answering machine list.

Voice memos only: Only displays the voice memos saved in the answering machine list.

Call recordings only: Only displays the call recordings saved in the answering machine list.

Archive: Displays the answering machine list archive.

Announcements: Displays the saved and free announcements for the answering machine.

Record voice memo: Starts the recording of a voice memo.

4. Select a recording.

5. Select one of the following options:

▶ Starts the recording playback.

Sends the recording to the e-mail address entered for e-mail notification.

Moves the recording to the archive.

Fetches the recording from the archive.

Marks the recording as already listened to.

Marks the recording as new.

Deletes the displayed recording. To delete all the entries except the announcements from the answering machine list, press the Menu **Menu key**, tap on **Delete all messages** and then tap on **OK**.

Calls the phone number of the caller who has left the message.

Listening to Recordings (Messages, Voice Memos and Call Recordings)

Proceed as follows:

- Using the telephone

1. Open the answering machine list.
2. In the list field on the left, above the answering machine list, select one of the following options:

   All entries: Displays all the entries saved in the answering machine list.

   Messages only: Only displays the messages saved in the answering machine list.

   Voice memos only: Only displays the voice memos saved in the answering machine list.

   Call recordings only: Only displays the call recordings saved in the answering machine list.

   Archive: Displays the answering machine list archive.
3. Select a recording.
4. Tap on ▶.
5. Select one of the following options:

   ⏸ Interrupts the recording playback.

   ◀◀ Jumps backwards 5 seconds when the recording is being played back.

   ■ Ends the recording playback.

- ▶▶ Jumps forwards 5 seconds when the recording is being played back.
- Deletes the selected recording.
- Ends the recording playback and closes the menu.

Note: The ◀◀ and ▶▶ buttons are only active while the recorded voice memo is being played back, not while the call information is being played back.

Forwarding Recordings (Messages, Voice Memos and Call Recordings) via E-Mail

From the answering machine recordings can be forwarded via e-mail with the settings made for e-mail notification.

Proceed as follows:

- Using the telephone

Requirements:

- Address of the e-mail recipient entered in the **> Settings > COMfortel > Answering machine > E-mail notification** menu
- A configured e-mail Outbox server entered in the **> Settings > COMfortel > More > E-Mail** menu

1. Open the answering machine list.

2. In the list field on the left, above the answering machine list, select one of the following options:

All entries: Displays all the entries saved in the answering machine list.

Messages only: Only displays the messages saved in the answering machine list.

Voice memos only: Only displays the voice memos saved in the answering machine list.

Call recordings only: Only displays the call recordings saved in the answering machine list.

Archive: Displays the answering machine list archive.

3. Select a recording.
4. Tap on .

Dialling from the Answering Machine List

From the answering machine list you can initiate a callback to the caller who left the selected message.

Proceed as follows:

- Using the telephone

1. Open the answering machine list.
2. In the list field on the left, above the answering machine list, select one of the following options:

   All entries: Displays all the entries saved in the answering machine list.

   Messages only: Only displays the messages saved in the answering machine list.

Voice memos only: Only displays the voice memos saved in the answering machine list.

Call recordings only: Only displays the call recordings saved in the answering machine list.

Archive: Displays the answering machine list archive.

Announcements: Displays the saved and free announcements for the answering machine.

Record voice memo: Starts the recording of a voice memo.

3. Select a message.
4. Tap on .

Deleting Recordings (Messages, Voice Memos and Call Recordings)

You can delete all the messages on the answering machine at once (together with the voice memos and call recordings), or delete them individually.

Proceed as follows:

- Using the telephone

1. Open the answering machine list.
2. In the list field on the left, above the answering machine list, select one of the following options:

   All entries: Displays all the entries saved in the answering machine list.

Messages only: Only displays the messages saved in the answering machine list.

Voice memos only: Only displays the voice memos saved in the answering machine list.

Call recordings only: Only displays the call recordings saved in the answering machine list.

Archive: Displays the answering machine list archive.

3. Select the recording you want to delete.
4. Tap on .

Note: To delete all the entries (messages, voice memos and call recordings) in the answering machine list simultaneously, press the Menu **Menu** key, tap on **Delete all messages**, and then tap on **OK**.

Function Key for the Answering Machine List

Press the key to which **TAM open** has been assigned to open the answering machine list.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key:

red	There is a dedicated connection to the answering machine.

LED signalling on the key:

red (blinking)	A message is currently being recorded on the answering machine. Simply pick up the receiver to take the call.
yellow	The answering machine's capacity has exceeded the warning threshold.
yellow (blinking)	The answering machine is full.
green	No new messages are present. Only recordings that have already been listened to are present.
green (blinking)	New messages are present.
off	The answering machine is empty.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **TAM open**
- Using the telephone by selecting **TAM open**

Note: For further information about the general procedures when assigning function keys, see Function Keys.

Voice Memos

You can use the answering machine to save your own voice memos. It can store up to 250 voice memos along with the date and time at which they were recorded. The recordings are numbered consecutively. The last/latest recording is assigned the number 1.

You can listen to, edit, and delete voice memos like any other messages.

Recording Voice Memos

Proceed as follows:

- Using the telephone (function key or **> Answering machine**

1. Select the answering machine list.
2. In the list field on the left, above the answering machine list, select the **Record voice memo** option.
3. Record your voice memo:
   - Speak into the telephone's microphone.
   - Alternatively, pick up the receiver and speak into its microphone to improve the sound quality of the voice memo.
4. Tap on ■ to stop recording the voice memo.

Note: Recordings whose recording time is shorter than 3 seconds are not saved.

Listening to Voice Memos

Proceed as follows:

- Using the telephone

1. Open the answering machine list.
2. In the list field on the left, above the answering machine list, select the **Voice memos only** option.
3. Select a voice memo.
4. Tap on ▶.
5. Select one of the following options:

⏸ Interrupts the recording playback.

◀◀ Jumps backwards 5 seconds when the recording is being played back.

■ Ends the recording playback.

▶▶ Jumps forwards 5 seconds when the recording is being played back.

🗑 Deletes the selected recording.

↶ Ends the recording playback and closes the menu.

Note: The ◀◀ and ▶▶ buttons are only active while the recorded voice memo is being played back, and not while the voice memo information is being played back.

Function Key for Recording Voice Memos

Press the key to which **TAM voice memo** has been assigned to switch recording mode for voice memos in the answering machine list on.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key:

yellow (blinking)	The connection to the answering machine is being created.
green	The answering machine is in recording mode.
off	Recording is not enabled on the answering machine.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **TAM voice memo**
- Using the telephone by selecting **TAM voice memo**

Notes:

The function can only be set up on a programmable function key that has an LED (not on a touch function key).

For further information about the general procedures when assigning function keys, see Function Keys.

E-Mail and Instant Messaging

This section describes how to set up e-mail accounts. It also tells you how to read and write e-mails.

It also tells you how to send and receive instant messages with the Instant Messaging app.

Topics

– E-Mail Account (page 359)
– E-Mail (page 364)
– Instant Messaging (page 367)

E-Mail Account

You must add (configure) an e-mail account before you can send and receive e-mails with your telephone. You can use more than one e-mail account on your telephone.

Creating an E-Mail Account

the dialogue in which you add (create) an account appears automatically the first time you open the e-mail app.

Depending on your e-mail provider, you can create an account either automatically or manually.

Proceed as follows:

- Using the telephone (page **> Settings > Accounts > Add account**)

1. Tap on **E-mail**.
2. Enter the e-mail address in the **E-mail address** entry field.
3. Enter the password in the **Password** entry field.

Note: If you set up another e-mail account, you can define the new account as the default account for new e-mails.

4. Tap on **Next**.

Note: If your e-mail provider's settings cannot be applied automatically, tap on **Manual setup**. You will be given the information by your e-mail provider or the system administrator, e .g.:

- Account type (POP3, IMAP or Exchange ActiveSync)
- Name of the incoming and outgoing mail server
- Domain/username (Exchange ActiveSync)
- Port numbers of the incoming and outgoing server
- All SSL requirements for incoming and outgoing e-mails
- All authentication standards (ESMTP) for outgoing e-mails
- Root folder (IMAP accounts)

An information request is sent to your e-mail provider.

5. Depending on your e-mail provider, follow the further instructions on the display.

6. Optional: Enter a name for the account in the **Give this account a name** entry field. The account name then appears in the account list.

7. Only for POP3/IMAP accounts: Enter a name in the **Your name** entry field. The name is displayed as the sender for outgoing messages.

   The Inbox of the e-mail account is opened and the account is synchronised. You can now use this account to send and receive e-mails.

8. Tap on **Next**.

9. Only for Exchange ActiveSync accounts: If necessary, make the additional security settings specified by your system administrator, e. g. enable the device administrator function or the screen lock if you are prompted to do so.

Configuring an E-Mail Account

For each e-mail account you can make general settings, notification settings and server settings:

- **General settings**: Settings for names and signatures, the Inbox check frequency, etc.
- **Notification settings**: Specify how you are informed about incoming messages, e.g. using sound.
- **Server settings**: Settings for the server and the elements of an account that are to be synchronised, for example, contacts and calendar.

Note: Please contact your e-mail provider or system administrator to get the necessary information for the account settings.

You can also use the e-mail app on the telephone to make multi-account settings for all your e-mail accounts.

Proceed as follows:

- Using the telephone

1. Tap on **> E-mail**.

2. Press the Menu **Menu** key and tap on **Settings**

3. Tap on the account you want to configure.

Note: To make multi-account settings in the e-mail app, tap on **General** above the account list and make the settings.

---

4. Tap on **Account name** and enter a name for the account in the entry field. The account name appears in the account list.

5. Tap on **My name** and enter a name in the entry field. The name is displayed as the sender for outgoing messages.

6. Only for POP3/IMAP accounts: Tap on **Signature** and enter a signature in the entry field. The signature is added to outgoing messages.

7. Only for Exchange ActiveSync accounts: Tap on **Extent of synchronisation** and select the time period during which e-mails are to be retrieved by the server from the list field.

8. Enable the **Default account** check box to define the account as the default account for outgoing e-mails.

9. Tap on **Inbox check frequency** and make a selection in the list field to specify how frequently e-mails are to be retrieved from the server.

10. Select the **E-mail notifications** check box to enable notification in the status line when e-mails arrive.

11. Only if e-mail notification is switched on: Tap on **Ringtone** and select a ringtone for notifications from the list field.

12. Tap on **Incoming settings** and make the settings for the incoming mail server.

13. Only for POP3/IMAP accounts: Tap on **Outgoing settings** and make the settings for the outgoing mail server.

14. Only for Exchange ActiveSync accounts: Select the **Sync contacts** and **Sync calendars** check boxes to enable the synchronisation of contacts and calendars.

Removing an E-Mail Account

You can remove an e-mail account along with all the messages, contacts and other data that belong to it from the telephone.

Proceed as follows:

- Using the telephone

1. Tap on **> Settings > Accounts > E-mail**.
2. Tap on the account you want to delete.
3. Press the Menu **Menu** key and tap on **Remove account**.

Note: When you delete an account, all the messages, contacts and other data associated with it are also deleted from the telephone.

4. Tap on **Remove account**.

E-Mail

After you configure an e-mail account you can read, answer, write and send e-mails.

Reading and Replying to E-Mail

The Email app automatically retrieves new e-mails from the established accounts. Depending on the account settings you will see a message in the status line or hear a ringtone to tell you that an e-mail has arrived.

Proceed as follows:

- Using the telephone

Requirements:

- Set up e-mail account

1. Tap on **> E-mail**.

   This opens the most recently displayed folder.

2. To open another account, tap on **Inbox** in the navigation bar and tap on the name of the account.

Note: When the Inbox is open, tap on to display other folders for an e-mail account, e.g. the draft or sent folders.

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3. Tap on the e-mail you want to read and reply to.

   This opens the e-mail. In the header you see the sender and additional information such as the time at which the e-mail was received.

4. You can now reply to the e-mail or forward it:

   Tap on or to respond to an e-mail. If you select , all the other e-mail recipients will receive your reply in addition to the sender.

   Tap on to forward an e-mail.

   Note: To mark an e-mail as unread, tap on .

   To delete an e-mail, tap on .

   The e-mail reply opens so you can edit it (see the section on E-Mail and Instant Messaging).

5. Tap on **Send**.

Writing and Sending E-Mails

Proceed as follows:

- Using the telephone

Requirements:

- A set up e-mail account

1. Tap on **> E-mail**.

2. Tap on .

Note: If you have opened an e-mail account, the new e-mail is sent from this account. Otherwise the e-mail is sent with the account you specified as the default account for outgoing e-mails. The account with which you send the e-mail is displayed in the top line.

---

3. Enter the recipient's e-mail address in the **To** entry field.

Note: While you are entering the e-mail address the system displays suitable addresses from your contacts. Tap on an address to transfer it.

---

4. Enter the subject of the e-mail in the **Subject** entry field.
5. In the **Compose Mail** entry field, enter the text of the e-mail.
6. You can add other e-mail recipients and attach files to your e-mail:

   Press the Menu **menu key** and tap on **Cc/Bcc** to add other e-mail recipients.

   Press the Menu **menu key** and tap on **Attach file** to attach a file to the e-mail.
7. Tap on **Send**.

Notes:

If you want to send the e-mail later, press the Menu **Menu** key and then tap on **Save**.

To discard the e-mail, press the Menu **Menu** key and then tap on **Discard**.

Instant Messaging

The Instant Messaging app allows you to send and receive instant messages.

Important: Instant messaging is only available on the PBXs COMpact 4000, COMpact 5000/R, COMpact 5200/R, COMpact 5500R and COMmander 6000/R/RX. The PBXs must be running a firmware version as of 6.4A to support this app.

Configuring the Instant Messaging App

the dialogue to configure the app will appear automatically before you write the first instant message.

Proceed as follows:

- Using the telephone

1. Tap on **> Instant Messaging**.
2. Tap on . Alternatively, press the **Menu key** and tap on **Settings**.
3. In the **Send via account** list field, select the account you wish to use to send the instant messages.
4. In the **Send via number** list field, select the number.

5. In the **Notification tone** list field, select the desired notification tone.
6. In the **Alarm sound** list field, select the desired alarm sound.
7. Enter the password in the **Password** entry field.
8. Tap on .

Reading and Replying to an Instant Message

The Instant Messaging app automatically retrieves new instant messages. Depending on your settings, a notification tone or the LED of the message key will notify you of incoming instant messages.

LED signalling on the message key:	
off	No entry.
red (blinking)	You have new instant messages.
red	You have only instant messages that have already been read, but no new messages,

Proceed as follows:

- Using the telephone

Requirements:

- Configured Instant Messaging app

1. Tap on **> Instant Messaging**.

The last page displayed (conversation or message list) opens.

Note: You can also start the Instant Messaging app by pressing the **message key** and tapping on **Instant Messaging**.

---

2. Depending on the page displayed, proceed as follows:
   - Conversation: To open another conversation, tap on , then tap on the desired conversation in the message list.
   - Message list: Tap on the desired conversation.
3. Enter the message in the **Message** entry field.
4. Tap on **Send**.

Writing and Sending an Instant Message

Proceed as follows:

- Using the telephone

Requirements:

- Configured Instant Messaging app

1. Tap on **> Instant Messaging**.

   The last page displayed (conversation or message list) opens.

2. Only for an opened conversation: Tap on to display the message list
3. Tap on .
4. Enter the message in the **Message** entry field.
5. Tap on **Send**.

Voice Mailboxes on the PBX

This chapter describes how to configure and operate voice mailboxes. It also shows how to record announcements, perform remote access, and forward messages, e.g. to a substitute.

Note: To use a standard VoIP account's voice mailbox functions you must make the settings specified by the VoIP provider (see Settings > Accounts > Configuring the Voice Mailbox (SIP Account).

Topics

– Voice Mailbox (page 372)
– Automatic Operation (page 376)
– Readiness (page 378)
– Deputy Function (page 381)
– Message Forwarding (page 383)
– Notification via E-Mail (page 386)
– Remote Access (page 388)
– Message List (page 393)
– Announcements (page 406)
– Voice Memos (page 410)
– Archive (page 416)

Voice Mailbox

A voice mailbox can be operated like a local answering machine. Depending on its setting, it records incoming calls and left messages as audio files (*.wav).

A fax box receives incoming telefaxes and stores them as *.pdf files. The maximum length of a telefax is 50 pages.

Voice messages, announcements and telefaxes are not stored in the telephone but in the PBX

The size of a voice mail/fax box and the permission to use it are set by the PBX. A voice mail/fax box can be assigned to an individual subscriber or to a group. In addition, a subscriber can be granted permission for several voice mail/fax boxes.

Important: The voice mailbox function is only available for COMpact 4000, COMpact 5010 VoIP, COMpact 5020 VoIP, COMpact 5000/R, COMpact 5200/R, COMpact 5500R and COMmander 6000/R/RX PBXs.

In some PBXs you will need to install another module (available as an optional extra) to run a voice mail/fax box.

COMmander 6000/R/RX: COMmander VMF module

COMpact 5010 VoIP: COMpact 2VoIP module

COMpact 5020 VoIP: COMpact 2VoIP or 6VoIP module

A voice mail/faxbox that has been set up has priority over a local answering machine, which means a local answering machine does not accept incoming calls if a voice mail/fax box has already been set up for the subscriber.

Requirements:

- Telephone is system telephone on the PBX
- Voice mailbox has been configured and assigned in the PBX

Proceed as follows for configuration:

- Basic settings (automatic playback, call information, separator tone)
  - Using the Configuration Manager (page **Settings > COMfortel > Answering machine**)
  - Using the telephone (page **> Settings > COMfortel > Answering machine**)
- Switching automatic operation on/off
  - Using the telephone (page **> Functions > VMB automatic mode**)
- Switching readiness on/off.
  - Using the telephone (page **> Functions > VMB readiness**)
- Switching deputy function on/off.
  - Using the telephone (page **> Functions > VMB deputy**)
- Switching message forwarding on/off.
  - Using the telephone (page **> Functions > VMB message fwd.**)
- Switching notification via e-mail on/off).
  - Using the telephone (page **> Functions > VMB e-mail**)
- Switching remote access on/off.
  - Using the telephone (page **> Functions > VMB remote access**)

Settings Configuration Manager Voice Mail and Fax Boxes

Proceed as follows:

- Using the Configuration Manager (page **Settings > COMfortel > Answering machine > Answering machine App**)

Anserwing machine App

☑ ☐ **Automatic playback**

> **Note:** The **Automatic replay of new recordings** voice mailbox setting in the PBX's Configuration Manager refers to playing back messages by remote access and not via the telephone's message list.

☑ New recordings start playing automatically as soon as you open the message list.

☑ ☐ **Call information**

☑ You are told when the call was received before the message is played.

☑ ☐ **Separator tone**

☑ You will hear a tone after each message if you listen to several new messages. This makes it easier to identify the individual messages.

Settings Telephone Voice Mail and Fax Boxes

Proceed as follows:

- Using the telephone (page **> Settings > COMfortel > Answering machine**)

Answering machine settings

☑ ☐ **Automatic playback**

Note: The **Automatic replay of new recordings** voice mailbox setting in the PBX's Configuration Manager refers to playing back messages by remote access and not via the telephone's message list.

☑ New recordings start playing automatically as soon as you open the message list.

☑ ☐ **Call information**

☑ You are told when the call was received before the message is played.

☑ ☐ **Separator tone**

☑ You will hear a tone after each message if you listen to several new messages. This makes it easier to identify the individual messages.

Signalling of Fax Boxes

The LED signalling shows new fax entries. If you find the LED signals of the fax boxes disruptive or annoying, they can be switched off separately using the Configuration Manager (page **Settings > Device > Display**).

Automatic Operation

If you have used VMB readiness to switch a voice mail/fax box on or off, independently of the PBX configuration, you can use this function to reset the box to the PBX configuration and the state of readiness specified there.

Proceed as follows:

- Using the telephone (function key or **> Functions > VMB automatic mode**)

VMB number

Enter the voice mailbox number.

Function Key for Automatic Operation

Press the key that was generally assigned for VMB automatic mode to switch on automatic operation for a voice mail/fax box that has not yet been selected.

Press the key that was specifically assigned for VMB automatic mode to switch on automatic operation for a predefined voice mail/fax box.

Press the key that was assigned when the voice mail/fax box readiness state was switched on (VMB readiness) to switch off automatic operation for this voice mail/fax box.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key:

green	The function key has a defined assignment: the readiness of the specified voice mail/fax box is temporary and enabled in the PBX.
off	The function key has no defined assignment. The function key has a defined assignment and the readiness of the specified voice mail/fax box is permanently enabled. The function key has a defined assignment and the readiness of the voice mail/fax box is switched off in the PBX.

Notes:

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **VMB automatic mode**
- Using the telephone by selecting **VMB automatic mode**

Account

Selection of the system telephony account

VMB number

Enter the phone number of the voice mailbox which is to be switched with the function key

Readiness

Before the voice mail/fax box can accept calls and record messages, its readiness must be enabled.

The box's readiness cannot be simply switched on permanently. You can use temporary readiness to switch the box using the PBX configurations, e.g. switch from day to night.

Note: You can also switch readiness on and off remotely.

Proceed as follows:

- Using the telephone (function key or **> Functions > VMB readiness**)

Operation

Switching readiness on or off.

Readiness

permanently: Switches readiness on permanently

temporarily: Press the key to temporarily enable readiness until the configuration is changed by the PBX.

VMB number

Enter voice mailbox number.

Function Key for Readiness

Press the key generally assigned for **VMB readiness** to enable, disable or switch the readiness state for a voice mail/fax box that has not yet been selected.

Press the key specifically assigned for **VMB readiness** to enable, disable or switch the readiness state of a previously defined voice mail/fax box.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key:

green	The readiness of a voice mail/fax box that is defined as permanently enabled is permanently switched on.
	The readiness of a voice mai/fax lbox that is defined as temporarily enabled is temporarily switched on.
yellow	The readiness of a voice mail/fax box that is defined as permanently enabled is temporarily switched on.
	The readiness of a voice mail/fax box that is defined as temporarily enabled is permanently switched on.

LED signalling on the key:

off	Readiness is disabled. The function key has no defined assignment.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **VMB readiness**
- Using the telephone by selecting **VMB readiness**

Notes:

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Operation

decide each time a key is pressed

Readiness

Selection of the account

Account

permanently: permanently enable the box

temporarily: temporarily enable the box until the configuration is switched by the PBX

VMB number

Enter the phone number of the box which is to be switched with the function key

Deputy Function

If the VMB deputy function is enabled, the caller can be connected with the deputy instead of leaving a message on the voice mailbox. To do this, the caller dials "1" during the announcement or recording phase.

You have to include this information ("You can reach my deputy by dialling the digit 1...") in the announcement yourself by recording it in your own announcement.

Proceed as follows:

- Using the telephone (function key or **> Functions > VMB Deputy**)

Requirements:

- The deputy function has been configured for the voice mailbox in the PBX
- Recorded announcement for the voice mailbox

Operation

Switch the deputy function on or off.

VMB number

Enter the voice mailbox number.

Deputy

Enter the deputy‘s number.

Function Key for the Deputy Function

Press the key generally assigned for **VMB Deputy** to enable, disable or switch the deputy function for a voice mailbox that has not yet been selected.

Press the key specifically assigned for **VMB Deputy** to enable, disable or switch the deputy function for a previously defined voice mailbox.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key:	
green	The voice mailbox's deputy function is switched on (for a defined assignment).
off	The deputy function is switched off. The function key has no defined assignment.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **VMB Deputy**
- Using the telephone by selecting **VMB Deputy**

Notes:

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Operation

decide each time a key is pressed

Account

Selection of the system telephony account

VMB number

Enter phone number of the voice mailbox which is to be switched with the function key

Deputy

Enter the deputy's number.

Message Forwarding

The message forwarding function means you can be notified by the voice mailbox set up for the phone number configured on the PBX when new messages arrive.

Proceed as follows:

- Using the telephone (function key or **> Functions > VMB message fwd.**)

Requirements:

- The destination for message forwarding has been configured for the voice mailbox in the PBX

Operation

Switch message forwarding on or off.

VMB number

Enter the voice mailbox number.

Function Key for Message Forwarding

Press the key generally assigned for **VMB message fwd.** to enable, disable or switch message forwarding for a voice mailbox that has not yet been selected.

Press the key generally assigned for **VMB message fwd.** to enable, disable or switch message forwarding.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key:

green	Message forwarding for the voice mailbox is enabled (for a defined assignment).
off	Message forwarding is disabled. The function key has no defined assignment.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **VMB message fwd.**
- Using the telephone by selecting **VMB message fwd.**

Notes:

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Account

Selection of the system telephone account.

Number

Number of the voice mailbox which is to be switched with the function key.

VMB number

Enter the substitute's number.

Operation

decide each time a key is pressed

Notification via E-Mail

Notification via e-mail means that the voice mail/fax box sends an e-mail to the e-mail address configured in the PBX to tell you that new messages have arrived.

Proceed as follows:

- Using the telephone (function key or **> Functions > VMB e-mail**)

Requirements:

- The outgoing mail server has been configured for the voice mail/fax box in the PBX
- E-mail transfer has been configured for the voice mail/fax box in the PBX

Operation

Switch notification via e-mail on or off.

VMB number

Enter the voice mailbox number.

Function Key for Notification via E-Mail

Press the key generally assigned for **VMB e-mail** to enable, disable or switch notification via e-mail for a voice mail/fax box that has not yet been selected.

Press the key specifically assigned for **VMB e-mail** to enable, disable or switch notification via e-mail.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key:

green	The voice mail/fax box's notification via e-mail function is switched on (for a defined assignment).
off	Notification via e-mail is disabled. The function key has no defined assignment.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **VMB e-mail**
- Using the telephone by selecting **VMB e-mail**

Notes:

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Operation

decide each time a key is pressed

Account

Selection of the system telephony account

Destination number

Enter the phone number of the voice mail/fax box which is to be switched with the function key

Remote Access

Proceed as follows:

- Using the telephone (function key or **> Functions > VMB remote access**)

Operation

Switch remote access on or off.

VMB number

Enter voice mailbos number.

Performing Remote Access

Remote access is used to access and operate the voice mailbox from an internal telephone or from an external telephone.

Proceed as follows:

- Using a character string on an external telephone
- Using a character string on an internal telephone

1. Call the voice mailbox.

   The voice mailbox accepts the call. You hear the configured announcement.

2. Dial *****.

Note: If the querying internal telephone is the owner/user of the voice mailbox, step 3 will be omitted.

---

3. Enter the **user PIN** or the **PIN for remote access** and press **#**.

   This starts the remote access procedure. You are led through the remote access menu with the help of various announcements.

4. Execute remote access by entering the following digits.

   0 Opens the Help menu.

   1 Opens the main menu.

   2 Replays new messages.

   3 Replays all the messages.

   4 Jumps back to the previous message.

   5 Repeats the message currently being replayed.

   6 Jumps to the next message.

   7 Deletes the message currently being replayed.

   8 Ends playback.

   *** 10**: Disables the voice mailbox.

   *** 11**: Enables the voice mailbox.

   *** 20**: Enables you to record and change to different announcements.

Note: The default announcement and your announcements are played, if present. The following functions are available whilst your own announcements are being played back:

#: Selects the announcement currently being played as an active announcement.

4: Jumps back to the previous announcement.

5: Repeats the announcement currently being played.

6: Jumps to the next announcement.

7 Selects the announcement that is currently being played, so you can change it or record it. Press # to save your announcement, or * to exit the function.

*** 30**: Disables message forwarding.

*** 31**: Enables message forwarding.

*** 70**: Deletes all messages and voice memos.

*** 99**: Records a voice memo.

Disconnect: Ends remote access.

Note: By dialling **9** while a message is being replayed, the phone number of the caller will be displayed—provided it has been transferred. By pressing the **#** key, you can initiate a callback to the caller's number.

Function Key for Remote Access

Press the key generally assigned for **VMB remote access** to enable, disable or switch the function for remotely accessing a voice mailbox.

Press the key specifically assigned for **VMB remote access** to enable, disable or toggle the remote access function.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key:

green	Voice mailbox remote access is enabled (for a defined assignment).
off	Remote access is disabled. The function key has no defined assignment.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **VMB remote access**
- Using the telephone by selecting **VMB remote access**

Notes:

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Operation

decide each time a key is pressed

Account

Selection of the system telephony account

VMB number

Enter the phone number of the voice mailbox which is to be switched with the function key

Message List

Message list of the voice mailbox

The message list of the voice mailbox is where the messages recorded by the voice mailbox and/or voice memos, with the time and date of their recording, and also the phone number of the caller/communication partner are saved. The recordings are numbered consecutively. The last/latest recording is assigned the number 1.

You can return the call of someone who has called you directly from the message list.

From the message list you can also access the following functions:

- Call up the voice mailbox archive
- Record announcements for the voice mailbox
- Record memos

Message list of the fax box

The message list of the fax box is where the messages received by the fax box, with the time and date of their receipt, and also the phone number of the sender are saved. The telefaxes are numbered consecutively. The last/latest telefax is assigned the number 1.

From the message list you can also access the following functions:

- Call up the fax box archive

Opening the Message List of a Voice Mailbox

Open the message list of a voice mailbox to retrieve, play back and delete recordings (messages and voice memos) or move them to an archive. You can also record announcements.

The message key LED shows you that there are recordings present in the message list.

LED signalling on the message key:	
Off	No recordings present.
Red (blinking)	New recordings are present. The fill level of a voice mailbox has exceeded the warning threshold.
Red	No new messages are present. Only recordings that have already been listened to are present. The fill level of a voice mailbox has exceeded the warning threshold and has already been acknowledged.

Proceed as follows:

- Using the telephone (function key or **> Functions > VMB open**)

Note: If a new recording is present, you can also open the message list by tapping on in the Status Info widget.

---

1. Press the **Message key**.

   This displays the available lists (this function is skipped if the other lists are empty).

2. Select the message list for the fax box.

Notes:

If you have enabled automatic playback under **> Settings > COMfortel > Answering machine**, new recordings will be played back automatically after the voice mailbox has been opened. The latest recording is played back first.

You can also enable or disable automatic playback from the message list by pressing the Menu **Menu key** and tapping on **Settings**.

---

3. In the list field on the left, above the message list, select one of the following options:

   All entries: Displays all the entries saved in the message list.

   Messages only: Displays only the messages saved in the message list.

   Voice memos only: Displays only the voice memos saved in the message list.

   Archive: Displays the voice mailbox archive.

   Announcements: Displays the saved and free announcements for the voice mailbox.

   Record voice memo: Starts the recording of a voice memo.

4. Select a message.

5. Select one of the following options:

   ▶ Starts the recording playback.

   Distributes the recording to another voice mailbox.

   Moves the recording to the archive.

   Fetches the recording from the archive.

Marks the recording as already listened to.

Marks the recording as new.

Deletes the displayed recording. To delete all the recordings apart from the announcements from the message list, press the Menu **Menu key** and tap on **Delete all messages**, then tap on **OK**.

Calls the phone number of the caller who has left the message.

Opening the Message List of a Fax Box

Open the message list of a fax box to download telefaxes to your telephone, delete them or move them into an archive. In addition, you cen forward telefaxes via e-mail.

Note: Your telephone saves telefaxes in the *.pdf file format. To read the telefaxes, you need to install a suitable app on your telephone (see chapter Introduction to the Telephone > Apps > All Apps > Installing Additional Apps).

LED signalling on the message key:

Off	No recordings present.
Red	New recordings are present.
(blinking)	The fill level of a fax box has exceeded the warning threshold.
Red	No new messages are present. Only recordings that have already been listened to are present.
	The fill level of a fax box has exceeded the warning threshold and has already been acknowledged.

Proceed as follows:

- Using the telephone (function key or **> Functions > VMB open**)

1. Press the **Message key**.

   This displays the available lists (this function is skipped if the other lists are empty).

2. Select the message list for the fax box.

3. In the list field on the left, above the message list, select one of the following options:

   All faxes: Displays all telefaxes saved in the message list.

   Sent faxes: Displays only the sent telefaxes.

   Received faxes: Displays only the received telefaxes.

   Archive: Displays the archive of the fax box.

4. Select a message.

5. Select one of the following options:

Saves the telefax to the telephone.

Distributes the telefax to another fax box.

Moves the telefax into the archive.

Fetches the telefax from the archive.

Marks the telefax as already downloaded.

Marks the telefax as new.

Deletes the displayed telefax. To delete all telefaxes from the message list, press the Menu **Menu key** and tap on **Delete all messages**, then tap on **OK**.

Sends the telefax to the e-mail address entered for E-mail notification.

Listening to Messages

Proceed as follows:

- Using the telephone

1. Open the message list of the voice mailbox.
2. In the list field on the left, above the message list, select one of the following options:

   All entries: Displays all the entries saved in the message list.

   Messages only: Displays only the messages saved in the message list.

   Voice memos only: Displays only the voice memos saved in the message list.

   Archive: Displays the voice mailbox archive.

   Announcements: Displays the saved and free announcements for the voice mailbox.

   Record voice memo: Starts the recording of a voice memo.
3. Select a message.

4. Tap on ▶ to listen to the message.

5. Select one of the following options:

   ⏸ Interrupts the recording playback.

   ◀◀ Jumps backwards 5 seconds when the recording is being played back.

   ■ Ends the recording playback.

   ▶▶ Jumps forwards 5 seconds when the recording is being played back.

   🗑 Deletes the selected recording.

   ↶ Ends the recording playback and closes the menu.

Note: The ◀◀ and ▶▶ buttons are only active while the recorded voice memo is being played back, not while the call information is being played back.

Distributing Messages

The messages in a voice mail/fax box can be distributed to other voice mail/fax boxes.

Proceed as follows:

- Using the telephone

1. Open the message list of the voice mail/fax box.

2. Only for voice mailboxes: In the list field on the left, above the message list, select one of the following options:

All entries: Displays all the entries saved in the message list.

Messages only: Displays only the messages saved in the message list.

Voice memos only: Displays only the voice memos saved in the message list.

Archive: Displays the voice mailbox archive.

Announcements: Displays the saved and free announcements for the voice mailbox.

Record voice memo: Starts the recording of a voice memo.

3. Only for fax boxes: In the list field on the left, above the message list, select one of the following options:

   All faxes: Displays all telefaxes saved in the message list.

   Sent faxes: Displays only the sent telefaxes.

   Received faxes: Displays only the received telefaxes.

   Archive: Displays the archive of the fax box.

4. Select a message.

5. Tap on and enter a phone number.

6. Select one of the following options:

   Move: Moves the message to the selected voice mail/fax box.

   Copy: Copies the message to the selected voice mail/fax box.

Dialling from the Message List

You can return the call of a caller who left a specific message directly from the message list.

Proceed as follows:

- Using the telephone

1. Open the voice mailbox's message list.
2. In the list field on the left, above the message list, select one of the following options:

   All entries: Displays all the entries saved in the message list.

   Messages only: Displays only the messages saved in the message list.

   Voice memos only: Displays only the voice memos saved in the message list.

   Archive: Displays the voice mailbox archive.

   Announcements: Displays the saved and free announcements for the voice mailbox.

   Record voice memo: Starts the recording of a voice memo.
3. Select a message.
4. Tap on .

   The phone number of the caller who left the message is called.

Sending a Telefax as E-mail

Received telefaxes can be sent as e-mail to the address entered in the PBX as recipient of messages for the fax box.

Proceed as follows:

- Using the telephone

Requirements:

- The outgoing mail server has been configured for the voice mail/fax box in the PBX
- E-mail transfer has been configured for the voice mail/fax box in the PBX
- Received telefax

1. Open the message list of the fax box.
2. In the list field on the left, above the message list, select one of the following options:

   All faxes: Displays all telefaxes saved in the message list.

   Sent faxes: Displays only the sent telefaxes.

   Received faxes: Displays only the received telefaxes.

   Archive: Displays the archive of the fax box.
3. Select a message.
4. Tap on .

Deleting Messages from the Message List

You can delete messages from a voice mail/fax box either singly or all at once (together with the voice memos).

Proceed as follows:

- Using the telephone

1. Open the message list of the voice mail/fax box.
2. Only for voice mailboxes: In the list field on the left, above the message list, select one of the following options:

   All entries: Displays all the entries saved in the message list.

   Messages only: Displays only the messages saved in the message list.

   Voice memos only: Displays only the voice memos saved in the message list.

   Archive: Displays the voice mailbox archive.

   Announcements: Displays the saved and free announcements for the voice mailbox.

   Record voice memo: Starts the recording of a voice memo.
3. Only for fax boxes: In the list field on the left, above the message list, select one of the following options:

   All faxes: Displays all telefaxes saved in the message list.

   Sent faxes: Displays only the sent telefaxes.

   Received faxes: Displays only the received telefaxes.

   Archive: Displays the archive of the fax box.

4. Select the message you want to delete.

5. Tap on .

   The message is deleted.

Note: To delete all the recordings (messages and voice memos) from the message list at the same time, press the Menu **Menu key**, tap on **Delete all messages** and then tap on **OK**.

Function Key for Opening a Message List

Press the key generally assigned for **VMB open** to open a list of the voice mail/fax boxes that are assigned to that key.

Press the key specifically assigned for **VMB open** to open the message list of the voice mail/fax box that was set up for this function key.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key:

red	A connection to the specified voice mail/fax box is present.
red (blinking)	Only for voice mailboxes: A message is currently being recorded in the specified voice mailbox. Simply pick up the receiver to take the call.
yellow	The fill level of the specified voice mail/fax box has exceeded the warning threshold.

LED signalling on the key:

yellow (blinking)	The specified voice mail/fax box is full.
green	No new messages are present in the voice mail/fax box, the only messages present have already been listened to or downloaded.
green (blinking)	New messages are present in the specified voice mail/fax box.
off	The specified voice mail/fax box is empty.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **VMB open**
- Using the telephone by selecting **VMB open**

Notes:

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Account

Selection of the system telephony account.

Destination number

Enter the phone number of the box which is to be switched with the function key.

Announcements

You can record announcements via the telephone for each assigned voice mailbox. You can play, enable/disable and delete your own announcements. In addition to the default announcement from the language files, you can store a maximum of 10 of your own announcements for each voice mailbox.

Recording an Announcement

Proceed as follows:

- Using the Configuration Manager on the PBX (see Advanced Information for the PBX).
- Using the telephone

1. Press the **Message key**.
2. Select the message list for the voice mailbox.
3. In the list field on the left, above the message list, select the **Announcements** option.
4. Select a free announcement.
5. Tap on ● , to start the recording.

   You now see the entry field in which you enter the announcement's name.
6. Enter a name for the announcement.

7. Tap on **OK**.

   The recording starts.

8. Record your announcement.

9. Tap on ■ to stop recording the announcement.

Notes:

You have the option of re-recording the recorded announcement (●) or listening to it again (▶).

To set the new announcement as the default announcement, tap on . If you press , the announcement is no longer used as the default announcement.

Recordings whose recording time is shorter than 3 seconds are not saved.

Switching Your Own Announcement On/Off

Proceed as follows:

- Using the Configuration Manager on the PBX (see Advanced Information for the PBX).
- Using the telephone

Requirements:

- You have recorded your own announcement

1. Press the **Message key**.
2. Select the message list for the voice mailbox.
3. In the list field on the left, above the message list, select the **Announcements** option.
4. Select a recorded announcement.
5. Tap:
   - to use this announcement instead of the PBX's default announcement.
   - to switch off this announcement and replace it with the PBX's default announcement.

   The selection you make here is then used by the PBX.

Note: If you have not recorded and enabled your own announcement, the PBX's default announcement is played when a call is received.

Deleting an Existing Announcement

Proceed as follows:

- Using the Configuration Manager on the PBX (see Advanced Information for the PBX)
- Using the telephone

1. Press the **Message key**.

2. Select the message list for the voice mailbox.
3. In the list field on the left, above the message list, select the **Announcements** option.
4. Select the announcement you want to delete.
5. Tap on to delete the recording.

Voice Memos

You can use the voice mailbox to save your own voice memos. It can store up to 250 voice memos along with the date and time at which they were recorded. The recordings are numbered consecutively. The last/latest recording is assigned the number 1.

You can listen to, edit, and delete voice memos like any other messages.

Recording Voice Memos

Proceed as follows:

- Using the telephone (function key or

1. Select the message list for the voice mailbox.
2. In the list field on the left, above the message list, select the **Record voice memo** option.
3. Record your voice memo:
   - Speak into the telephone's microphone.
   - Alternatively, pick up the receiver and speak into its microphone to improve the sound quality of the voice memo.
4. Tap on ■ to stop recording the announcement.

Note: Recordings whose recording time is shorter than 3 seconds are not saved.

Listening to Voice Memos

Proceed as follows:

- Using the telephone

1. Open the voice mailbox's message list.
2. In the list field on the left, above the message list, select the **Voice memos only** option.
3. Select a voice memo.
4. Tap on ▶.
5. Select one of the following options:

⏸ Interrupts the recording playback.

◀◀ Jumps backwards 5 seconds when the recording is being played back.

■ Ends the recording playback.

▶▶ Jumps forwards 5 seconds when the recording is being played back.

🗑 Deletes the selected recording.

↶ Ends the recording playback and closes the menu.

Note: The ◀◀ and ▶▶ buttons are only active while the recorded voice memo is being played back, not while the voice memo information is being played back.

Distributing Voice Memos

You can distribute the voice memos in one voice mailbox to other voice mailboxes.

Proceed as follows:

- Using the telephone

1. Open the voice mailbox's message list.
2. In the list field on the left, above the message list, select the **Voice memos only** option.
3. Select a voice memo.
4. Tap on and enter a phone number.
5. Select one of the following options:

   Move: Moves the voice memo to the selected voice mailbox.

   Copy: Copies the voice memo to the selected voice mailbox.

Deleting Voice Memos

You can delete voice memos from a voice mailbox either singly or all at once (together with the messages).

Proceed as follows:

- Using the telephone

1. Open the voice mailbox's message list.
2. In the list field on the left, above the message list, select the **Voice memos only** option.
3. Select the voice memo you want to delete.
4. Tap on .

Note: To delete all the recordings (messages and voice memos) from the message list at the same time, press the Menu **Menu key**, tap on **Delete all messages** and then tap on **OK**.

Function Key for Recording Voice Memos

Press the key generally assigned for **VMB voice memo** to open a dialogue where you can select the voice mailbox in which you want to record a voice memo.

Press the key specifically assigned for **VMB voice memo** to start recording a voice memo in the voice mailbox for which this function key has been configured.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key:

yellow (blinking)	The connection to the voice mailbox has been created.
green	The voice mailbox is in recording mode.
off	No recording is being carried out in the voice mailbox.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **VMB voice memo**
- Using the telephone by selecting **VMB voice memo**

Notes:

The function can only be set up on a programmable function key that has an LED (not on a touch function key).

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

Account

Selection of the system telephone account

VMB number

phone number of the voice mailbox which is to be switched with the function key.

Archive

Messages which you wish to remove from the message list of a voice mail or fax box without deleting them can be moved to the archive.

Moving a Message into an Archive

Proceed as follows:

- Using the telephone

1. Open the message list of the voice mail/fax box.
2. Tap on the message.
3. Tap on to move the message into the archive.

Opening an Archive

Proceed as follows:

- Using the telephone

1. Open the message list of the voice mail/fax box.
2. In the list field on the left, above the message list, select the **Archive** option.

Note: To move a message from the archive to the inbox, tap on the message and then tap on .

Deleting Messages from the Archive

Proceed as follows:

- Using the telephone

1. Open the message list of the voice mail/fax box.
2. In the list field on the left, above the message list, select the **Archive** option.
3. Tap on the message.
4. Tap on to delete the message.

Settings

This section describes how to configure and manage your telephone.

Topics

– Providers and PBXs (page 419)
– Accounts (page 468)
– Network (page 496)
– Sound (page 523)
– Display (page 534)
– Apps, Running Services and Storage Use (page 545)
– Emergency numbers (page 547)
– Location (page 549)
– File Manager (page 552)
– IP Camera (page 554)
– Permissions (page 567)
– Security (page 576)
– Language on the Telephone (page 583)
– App Accounts (page 584)
– Date and Time (page 587)
– Telephone Information (page 592)
– External Control (page 594)

Providers and PBXs

In a local network (LAN), the telephone can operate as a VoIP system telephone and/or as a standard VoIP telephone.

Provider

A VoIP provider is an Internet service provider that offers Internet telephony (VoIP, meaning "Voice over Internet Protocol").

There are many providers that issue each customer their own phone number, which can be called from a land line, as well as over the Internet. Depending on the provider used, and the phone number called, these types of telephone connections may extremely cheap, if not free of charge.

Some providers give the impression that Internet telephony is totally free of charge. However, it is important to research the actual costs incurred by checking the tariff tables of the particular provider. As the connection to a land line connection is established over a gateway, the location of the gateway may affect any charges associated with the call. This applies especially to international calls that may be more expensive than simple calls on a public switched network if the gateway is located domestically.

PBXs

PBXs connect different internal end devices with different public telecoms networks, enabling users to make external and internal calls. The PBXs make different ports/interfaces available for this.

To operate this as a system telephone, you require one of the following PBXs:

- COMpact 4000
- COMpact 5010 VoIP
- COMpact 5020 VoIP
- COMpact 5000/R
- COMpact 5200/R
- COMpact 5500R
- COMmander 6000/R/RX
- COMmander Basic.2/19"
- COMmander Business/19"

Moreover, the telephone can also be used as a standard VoIP telephone in the following PBXs:

- COMpact 3000 analog/ISDN/VoIP

To support the system telephone, the PBX needs at least the following firmware versions:

- COMpact 5010 VoIP, COMpact 5020 VoIP, COMmander Basic.2/19", COMmander Business/19": 4.2F
- COMpact 4000, COMpact 5000/R: 6.4D
- COMmander 6000/R/RX: 6.0C

Management Configuration Manager Providers and PBXs

Proceed as follows:

- Using the Configuration Manager (page **Settings > Providers & PBXs**)

New provider/PBX

A new provider/PBX will be created and added to the providers and PBXs list. For this purpose, a profile can be downloaded from the Internet.

Provider profiles

+ New > Import

Requirements:

- Existing Internet connection

Provider files with data of various providers can be imported from the Internet.

Note: The access data provided via online configuration is a non-binding information.

Provider profiles

Import

Select and import a provider profile (*.xml) via the PC from a data storage device.

Note: Hereby, a new provider will be created with the profile data. The profile itself will not be saved.

Delete

The selected provider/PBX will be deleted.

Management Telephone Providers and PBXs

Proceed as follows:

- Using the telephone (page) **> Settings > Providers & PBXs >** Menu)

New provider/PBX

A new provider/PBX will be created and added to the providers and PBXs list. For this purpose, a profile can be downloaded from the Internet.

Delete all providers/PBXs

All providers and PBX in the list will be deleted.

Note: Touch and hold the provider/PBX name to individually delete or edit the provider/PBX or to reregister all accounts.

Settings Configuration Manager Providers and PBXs

Proceed as folllows:

- Using the Configuration Manager (page **Settings > Providers & PBXs > Configure**)

Provider

Name

Enter provider or PBX name.

Type

Requirements:

- **int Auerswald PBX sub system IPv4 *** profile not selected

Public exchange (Internet VoIP provider): Selects VoIP provider as the type.

PBX: Selects PBX as the type.

Domain

Requirements:

- Set DNS server

Enter domain. The domain (also known as a "SIP domain" or "SIP realm") is required for the VoIP address. The VoIP address of a subscriber consists of the VoIP number and the domain, separated by the @ character: <subscriber>@domain.

Network interface type

A network interface is an interface that enables a computer or a network component access to a computer network. Setting the network interface type allows you to operate the telephone on different networks, for example, VLANs or VPNs.

Default network: Default network is used.

VPN: VPN is used.

Registrar

The registrar is the IP address or URL that you receive from your VoIP provider for login.

Important: Every port opening on the router is a security risk. Perform the appropriate security measures.

Notes:

The registrar should only be disabled if the provider requires this.

No NAT Keep Alive is performed if the registrar is disabled.

An internal network is usually protected from external manipulation by, for example, a firewall integrated in the router. Without NAT Keep Alive, the firewall's security functions will defend you against attempted accesses from the Internet.

That is why you may need to set up port forwarding for incoming SIP packets in the router for the **SIP port** set up in the provider's/PBX's configuration.

☑ REGISTER requests are sent to the registrar .Additional entries must be made:

Registrar address

Enter registrar address as IP address or URL.

Registrar port (1...65535)

Enter registar port.

Registration interval (min.) (1...60)

Enter registration interval.

◉ ○ Outbound proxy

The outbound proxy is an intermediate server that processes all VoIP requests and connections going to the provider (except for registration).

Requirements:

- Set DNS server

Deactivated: Disables the outbound proxy.

Received automatically: Automatically determines an outbound proxy.

Received manually: Enables you to enter an outbound proxy.

If the **Received manually** option has been selected, additonal entries must be made:

Outbound proxy IP/URL

Enter outbound-Proxy IP/URL.

Outbound Proxy port (1...65535)

Enter outbound proxy port.

Note: You find an overview of the PBX ports in the Configuration Manager of the PBX under **Overviews > Ports**.

NAT

NAT (Network address translation) converts an IP address of an e. g. private network into an IP address of the public network. All computers that communicate with each other within a private network, receive Internet access via only one IP address. The internal IP addresses of the private network are not accessible for the Internet.

◉ ○ **SIP NAT traversal**

If NAT traversal is switched on and a query is sent from a local IP address to the public network, the sending IP address is swapped with the public IP address. This function is performed in the reverse direction for the reply.

Requirements:

- Set DNS server
- STUN server set up for the provider/PBX, if the **Enabled with STUN** option has been selected
- If the **enabled** option has been selected: the **registrar** enabled for the provider/PBX

Important: Every port opening on the NAT router is a security risk. Perform the appropriate security measures.

Enabled : NAT traversal is performed by the provider/PBX. The SIP request also contains an "rport" part in which the IP addresses used here (local, public) are transported.

Disabled : NAT traversal is not performed by the provider/PBX. The router, which connects the Local Area Network with the Internet, should be a properly functioning, SIP-aware router which performs NAT traversal.

Enabled with STUN : NAT traversal is performed by the provider/PBX. To achieve this, you must also enter a **STUN server** under **Settings**.

Note: If **Enabled** is selected: if there are problems with unilateral call connections, a STUN server should be used (**enabled when you are using STUN**).

RTP NAT traversal

If NAT traversal is switched on and a query is sent from a local IP address to the public network, the sending IP address is swapped with the public IP address. This function is performed in the reverse direction for the reply.

Requirements:

- Set DNS server
- STUN server set up for the provider/PBX, if the **Enabled with STUN** option has been selected
- If the **enabled** option has been selected: the **registrar** enabled for the provider/PBX

Important: Every port opening on the NAT router is a security risk. Perform the appropriate security measures.

Disabled ◉ : NAT traversal is not performed by the provider/PBX. The router, which connects the Local Area Network with the Internet, should be a properly functioning, SIP-aware router which performs NAT traversal.

Enabled with STUN ◉ : NAT traversal is performed by the provider/PBX. To do this, you must also specify a STUN server.

☑ ☐ **NAT keep alive**

Keep alive maintains the connection between client and server by sending NAT keep alive packets which prevent the interruption of the connection. An intveral for the sending of those NAT keep alive packets must be determined. This interval indicates after how many seconds NAT keep alive packets are send to maintain the NAT mapping in the firewall.

☑ NAT keep alive is enabled and an additional entry must be made:

☐ NAT keep alive interval (sec.) (15...255)

Enter NAT keep alive interval.

Note: Some providers lock accounts if the **NAT keep alive interval (sec.)** is too short. As a rule, this is reported with error message 503 during SIP registration. If this problem occurs, we recommend you reduce the value (e.g. to 180).

STUN server

A STUN server provides subscribers on a private network information on request. This information includes the IP address and port outside their private network that is considered as the source of their data. This information is entered in the requests, instead of the actual private IP address/ port.

☐ **STUN server IP/URL**

Enter STUN server IP/URL.

☐ **STUN server port** (1...65535)

Enter STUN server port.

☐ **STUN server query interval (min)** (1...60)

Enter interval.

Requirements:

- Set DNS server

Note: If there are problems with unilateral call connections, enabling the RTP might help.

Important: Each port forwarding is a security risk. For this reason, we recommend you use this function only if absolutely necessary.

SIP

SIP port (1...65535) ☐

The SIP port is a port on the local system that is used as a starting point for the SIP transfer.

Notes:

The SIP port must be different for each provider/PBX.

You find an overview of the PBX ports in the Configuration Manager of the PBX under **Overviews > Ports**.

Enter SIP port.

SIP session timer ☑ ☐

☑ The SIP session timer regularly verifies if the call connection still exists. (The telephone/PBX cannot recognize if the provider interrupts the call connection).

SIP session timer interval (min.) (5...6)

Indicates after how many minutes the SIP session timer should check the call connection.

Note: The enabling of the SIP session timer can cause increased breaks in conversations after the set interval, if a provider has not implemented the renewal of the session cleanly. In this case, you should disable the SIP session timer.

Server type

- **Default SIP server**: Server for the normal system telephone operation.
- **Broadsoft server**: Server for providers with Broadsoft certification.
- **ESTOS CSTA (ECSTA)**: Server for the use of uaCSTA.

Session Initiation Protocol Security (SIPS)

Requirements:

- SIP account: A certificate, saved on the hard disk

Important: If you are using this on the PBX, the PBX specifies the encryption method. The PBX overwrites manual settings.

Overhearing of VoIP conversations will be prevented, as these connections are encrypted. The connection setup and termination, and also signalling, are encrypted with SIPS. The call data is encrypted with SRTP.

Note: If you have saved a root certificate for encrypting calls in your PBX, this is uploaded automatically to the telephone. You must enter the root certificate fingerprint in the telephone so that the root certificate can be verified.

- Set PBX Account: **Fingerprint for SIPS certificate** . Enter fingerprint.
- Set SIP account: **Import certificate** . Import certifcate from the hard disk.

Import certificate

Import

Import certificate.

Delete

Delete certificate.

URL structure

SIPS: Encryption of SIPS via TLS.

SIP/TLS: Encryption of SIP via TLS.

Disable host name check

☑ No verification whether the certificate belongs to the domain/IP.

SIP transport protocol

UDP (User Datagram Protocol) is used to send data packet over non-secure communication lines without a connection. This means that successful transmission is dependent on the application and is therefore not always guaranteed. UDP itself does not verify whether data has been transmitted successfully. When a UDP packet is sent, the sender cannot assume that the packet will indeed arrive at the recipient. This particular protocol needs only a small amount of additional information, and results in a better data throughput rate in a well-functioning network, e.g., on a LAN. UDP is used, e.g., for the DNS (Domain Name Server).

TCP (Transmission Control Protocol) is a transport protocol that segments data into packets up to a specified size and reliably sends these individual data packets in the correct sequence to the recipient address. In this process, every data packet sent must be resent until it has been confirmed as arrived. In order to make sure this happens, a large amount of information is sent along with the actual payload data. Most Internet services are implemented with TCP, e.g., HTTP (WWW), SMTP/POPS (e-mail), etc.

Important: If encryption is enabled by SIPS, the TCP transport protocol is used. Manual settings are overwritten.

◉ **UDP**: UDP is used.

◉ **TCP**: TCP is used.

RTP

DTMF signalling ◉ ○

At DTMF signalling, a sound of two overlapped sound frequencies is assigned to each digit of the keypad. Here, you must select how the DTMF signalling is to be transmitted. This is critically depened on the provider and the transmission path.

Note: If your are unsure which DMFT signalling type you must select, you cand find out the right type by trying them out.

Outband, with local response in acc. with RFC2833 ⊙ : The telephone uses different channels to transfer DTMF signals and voice data. The DTMF signals are filtered out of the voice data. You hear a confirmation tone to confirm that the DTMF signals have been sent successfully.

Inband, DTMF signals sent through the audio channel ⊙ : The telephone uses the same channel (DTMF tones) to transfer DTMF signals and voice data.

Outband, in acc. with RFC2833 ⊙ : The telephone uses different channels to transfer DTMF signals and voice data. The DTMF signals are filtered out of the voice data.

Codecs ⊙ ○

A codec is a method that encodes (digitises) analogue voice data for transmission and again decodes again, meaning converts into back into voice. There are various codecs that feature different voice data compression rates thereby require different band widths for data transmission. The equality of VoIP calls is dependent on the codec used.

Notes:

If a codec with high bandwidth (e.g. G.711) produces too much interference in the call quality, the connection bandwidth might not be sufficient. If these types of disruptions happen frequently, we recommend you select codecs with a lower band width.

Not every codec is supported by every provider.

Best available quality ⊙ : Codec G.722 has priority level 1, Codec G.711 has priority level 2 and Codec iLBC has priority level 3.

Best possible compression ⊙ : Codec iLBC has priority level 1, Codec G.722 has priority level 2 and Codec G.711 has priority level 3.

Force G711 ⊙ : Codec G.711 is required.

Music on hold ☑ ☐

Requirements:

- **int Auerswald PBX sub system IPv4 *** profile not selected

☑ When putting a caller on hold, music on hold will be played.

Jitter buffer (ms) (40...160)

The size of the jitter buffer shows how many RTP packets can be buffered, to bridge or compensate disruptions.

Jitter buffer size entry in milliseconds (duration of the audio signal).

Lower values: A lower number of RTP packets can be cached in order to buffer disruptions or to compensate for them.

Greater values: A greater number of RTP packets can be cached in order to buffer disruptions or to compensate for them.

SRTP

To prevent anyone from eavesdropping VoIP conversations, you can encrypt these connections. The connection setup and termination, and also signalling, are encrypted with SIPS. The call data is encrypted with SRTP.

Important: If you are using this on the PBX, the PBX specifies the encryption method. The PBX overwrites manual settings.

Disabled: Forces de-activation of call data encryption by SRTP. The connection is not established if the call partner (VoIP provider, other PBX in the sub-system operation, external VoIP subscriber) requires call data to be encrypted by SRTP.

Preferred: Switches on negotiation for the encryption of call data by SRTP. When a call is made, the call partner will be asked if encryption is possible. If so, the call data will be encrypted and then transmitted, if not, the call data will not be encrypted.

Mandatory: Forces activation of call data encryption by SRTP. The connection is not established if the call partner (VoIP provider, other PBX in the sub-system operation, external VoIP subscriber) does not support the encryption of call data by SRTP.

Numbers

☑ ☐ **Use of public exchange subscriber numbers**

Public exchange subscriber numbers must be used for PBXs which allow you to dial external telephone numbers without preceding exchange line access numbers or characters (e. g. 0 or **). Such PBXs automatically detect whether exchange line access is required or not.

Requirements:

- No operation on the PBX
- Set type **PBX**

☑ Call acceptance rules for internal and external will be applied when a call comes in. In addition, you can forward an incoming call to an external telephone number without having to dial the exchange line access number.

Exchange line access number

Requirements:

- Selected type **PBX** (page Settings > Providers & PBXs > Provider)

Note:

After you dial the exchange line access number, the external dial tone indicates that an external line is free. The external number can then be dialled.

You can also request an exchange line from the telephony app. Tap on to display the list of external contacts and dial an external account (public exchange). Tap on to display the list of internal contacts. Only internal telephone numbers can be dialled.

The exchange line access number of the PBX is „0“ in the factory settings but can be changed in some PBXs.

Enter the exchange line access number. When used as a system telephone the exchange line access number is automatically transferred from the PBX.

Keypad sequence

Keypad sequences enable you to control features by entering characters and number sequences via the phone keys, e.g. to make pick-ups or InterCom announcements.

Important: If operated as a system telephone on the PBX, the keypad sequences are predefined by the PBX. The PBX overwrites any keypad sequences you have entered manually.

Note: When selecting the type **Public exchange (Internet VoIP provider)** under **Settings > Providers & PBXs > Configure > Provider > Type** some keypad sequencens and the exchange line access number are not available.

Enter keypad sequence : The following keypad sequences for PBX operation are available:

Pick-up: The keypad sequence is required to carry out pick-ups on PBXs where a pick-up sequence is mandatory for this function. Information from SIP notify messages are not taken into consideration.

InterCom announcement: The keypad sequence is required to make an InterCom announcement. InterCom announcements can also be made on accounts where the telephone is not used as system telephone.

InterCom hands-free calling: The keypad sequence is required to enable Intercom hands-free calling at a destination which does not support automatic call acceptance.

Alarm confirmation: The keypad sequence is required to acknowledge an alarm call with the keypad.

Waiting loop: For moving into the waiting loop.

Evaluation of incoming SIP messages

Depending on the SIP provider, the phone number of the caller can be in different locations in the SIP message. The following options and settings must be selected and made to determine at which location of the SIP message the phone number shall be searched.

Two different phone numbers can be transmitted: The actual phone number of the caller (screened number/network provided number) and a number self-selected by the caller (unscreened number/user provided number). If a network provided number is extracted from the SIP message, functions such as Call Through can be used.

Evaluation type

Standard: Selects an evaluation method for phone numbers which will work for most providers.

Standard (use From headers as screened-number): Selects an evaluation method for phone numbers which will work for most providers. The user provided number (corresponds to CLIP no screening) of the header “From“ will be taken over into the network provided number. The phone numbers can, for example, be used for Call Through via VoIP.

Caution: If you have selected this option, your telephone and your PBX are vulnerable to attacks, for example by transmission of a phone number manipulated by the attacker. Therefore, to protect your telephone and PBX, assure yourself that the VoIP provider has integrated sufficient security measures in the number presentation.

As described in RFC3325: Selects a phone number evaluation method in accordance with RFC 3325 (http://www.ietf.org/RFC/rfc3325.txt). This method of evaluating phone numbers is used if the number presentation is guaranteed by security mechanisms.

User-defined: If the **Default** and **As described in RFC3325** options are unsuccessful, you can also define your own method of evaluating a phone number within certain limits.

Notes:

The phone number to be evaluated should preferably be canonical (+445306.... or 00445306…). Otherwise it is not used for evaluation.

The designations used for the settings match the designations used in Wireshark.

Network-provided number: Network-verified incoming phone number: The sequence entered in the invite is searched for the phone number which can be analysed.

User-provided number: Non-verified incoming phone number (corresponds to CLIP no screening): The sequence entered in the invite is searched for the phone number which can be analysed. Optional: is not transferred by all providers.

User-provided name: Caller's name in plain text. Optional: is not transferred by all providers.

Internationalise unknown numbers ☑ ☐

☑ Phone numbers which are not transferred in the usual format: (e. g. +445306… or 00445306…) are converted into this format.

Number presentation (outgoing)

You need to input the following information to ensure that the telephone transfers the data (e.g. the called phone number, its own phone number) to the provider in the correct format:

- **Format of called party number** : Format, in which the provider requires the phone number of the called party number to transfer the call.

Note: The telephone automatically converts called phone numbers into this format when it makes calls via the provider. If you dial a number without a prefix, the local area code therefore applies (**Settings > Accounts > Country and area code**).

  - **With country and area code** (0044 5306): The called phone number is sent to the provider along with its entire country code (e.g. 0044).
  - **With country code and area code** (+44 5306): The called phone number is sent to the provider with a plus sign (+) and the entire country code (e.g. +44).
  - **With country code and area code** (44 5306): The called phone number is sent to the provider with a shortened country code (without international prefix (number), e.g. 44).
  - **With area code** (05306): The called phone number is sent to the provider without a country code.
  - **Unchanged (as dialled)**: The called phone number is sent to the provider unchanged.

- **Format of own number** : Format in which your own phone number, that is to be transmitted, is to be supplied to the provider.

Note: Your own phone number is automatically converted into the selected format. If you have entered your own phone numbers in the

telephone without prefixes, the local area code applies to them during conversion (**Settings > Accounts > Country and area code**).

  - **With country and area code** (0044 5306): Your own phone number is sent to the provider along with its entire country code (e.g. 0044).
  - **With country code and area code** (+44 5306): Your own phone number is sent to the provider with a plus sign (+) and the entire country code (e.g. +44).
  - **With country code and area code** (44 5306): Your own phone number is sent to the provider with a shortened country code (without international prefix (number), e.g. 44).
  - **With area code** (05306): Your own phone number is sent to the provider without a country code.
  - **Only port number (MSN / DDI + main number)**: Only your own connection number (MSN/DDI main number + DDI) is to sent to the provider.
  - **dial (DDI)**: Only your own Direct Dial In (DDI) is sent to the provider.

- **Method for calling line identity restriction** : Calling line identity restriction by the provider with or without display text.
  - **No display text**: If calling line identity restriction is enabled, no display text is sent to the called phone number by the provider
  - **Anonymous**: If calling line identity restriction is enabled, the display text "anonymous" is sent to the called phone number by the provider.
  - **User Anonymous**: If calling line identity restriction is enabled, the display text "user anonymous" is sent to the called phone number by the provider.

- **Manner of number presentation** : Range in which the provider expects to receive phone numbers from the telephone.

- **In the display text**: Your own external number, which is to be transmitted to the called phone number, is transferred to the provider in the "Display text" field.
- **In the username**: Your own external number, which is to be transmitted to the called phone number, is transferred to the provider in the "Username" field.
- **As described in RFC3325 with P-Asserted-Identity**: Your own external number, which is to be transmitted to the called phone number, is transferred to the provider in the "P-Asserted-Identity" field.
- **As described in RFC3325 with P-Preferred-Identity**: Your own external number, which is to be transmitted to the called phone number, is transferred to the provider in the "P-Preferred-Identity" field.
- **Custom**: Uses user-defined settings for number presentation.

Notes: The **Custom** option requires additional settings:

From

Settings for setting up the "From" header.

P-Asserted-Identity

Settings for setting up the P-Asserted-Identity" header.

P-Preferred-Identity

Settings for setting up the "P-Preferred-Identity" header.

Alert-info

Call type determination via alert-info

A specific ringtone can be assigned to the different call types of a SIP account. The required information is transmitted by the SIP provider.

Requirements:

- Telephone is a not system telephone on the PBX

To assign a ringtone to a call, the link leading to the ringtone must be set into the alert info header.

<http://my.server.com/my_ringtone.mp3>

Subsequently, the link is evaluated in two different ways:

- Here, it is checked if the text that, for example, signalises door calls is found in the alert info header. If this is applicable, the ringtone that was configured for door calls is played.
- If the call is not assigned to a specific call type and also no other ringtone is configured, (for example in the contacts, ringtone for exchange line or the group to that the call is assigned to) it is attempted to load and play the audio file within 3 seconds. If this is not possible, the default ringtone will be played.

Note: Some providers already have fixed information for some call types.

An alert info can be entered for the following call types:

Internal calls

Internal priority calls

External calls

Group calls

Alarm calls

Wake-up calls

Door calls

Silent calls

User-defined call type (up to 5 different call types)

Likewise, images belonging to a call can be transmitted via SIP. For this, the link to the image must be set into the call info header and the parameter "purpose" must be set on "icon".

<http://my.server.com/my_image.jpg>;purpose=icon>

This will also work for webcam images. Additionally, it can be entered in which time intervals the image shall be reloaded. For this, the parameter "refresh" is used. The entered value equals the repetition interval in milli-seconds.

<http://my.server.com/my_webcam.jpg>;purpose=icon;refresh=333>

Webcams can also be used without entering a value for this parameter. After 3 and 10 seconds, the phone reloads the image. If it has changed during this time interval, subsequently, it is reloaded regularly. If this is not desired, 0 must be entered for the "refresh" parameter.

<http://my.server.com/my_webcam.jpg;purpose=icon;refresh=0>

Settings Telephone Providers and PBXs

Proceed as follows:

- Using the telephone (page **> Settings > Providers & PBXs**)

Provider/PBXs settings

Name

Enter provider or PBX name.

Domain

Requirements:

- Set DNS server

Enter domain. The domain (also known as a "SIP domain" or "SIP realm") is required for the VoIP address. The VoIP address of a subscriber consists of the VoIP number and the domain, separated by the @ character: <subscriber>@domain.

Network interface type

A network interface is an interface that enables a computer or a network component access to a computer network. Setting the network interface type allows you to operate the telephone on different networks, for example, VLANs or VPNs.

Default network: Default network is used.

VPN: VPN is used.

☑ ☐ **Registrar**

The registrar is the IP address or URL that you receive from your VoIP provider for login.

Important: Every port opening on the router is a security risk. Perform the appropriate security measures.

Notes:

The registrar should only be disabled if the provider requires this.

No NAT Keep Alive is performed if the registrar is disabled.

An internal network is usually protected from external manipulation by, for example, a firewall integrated in the router. Without NAT Keep Alive, the firewall's security functions will defend you against attempted accesses from the Internet.

That is why you may need to set up port forwarding for incoming SIP packets in the router for the **SIP port** set up in the provider's/PBX's configuration.

☑ REGISTER requests are sent to the registrar .Additional entries must be made:

Registrar address

Enter registrar address as IP address or URL.

Registrar port (1...65535)

Enter registar port.

Registration interval (min.) (1...60)

Enter registration interval.

◉ ○ Outbound proxy

The outbound proxy is an intermediate server that processes all VoIP requests and connections going to the provider (except for registration).

Requirements:

- Set DNS server

Deactivated: Disables the outbound proxy.

Received automatically: Automatically determines an outbound proxy.

Received manually: Enables you to enter an outbound proxy.

If the **Received manually** option has been selected, additonal entries must be made:

Outbound proxy IP/URL

Enter outbound-Proxy IP/URL.

Outbound Proxy port (1...65535)

Enter outbound proxy port.

Note: You find an overview of the PBX ports in the Configuration Manager of the PBX under **Overviews > Ports**.

SIP

SIP port (1...65535)

The SIP port is a port on the local system that is used as a starting point for the SIP transfer.

Notes:

The SIP port must be different for each provider/PBX.

You find an overview of the PBX ports in the Configuration Manager of the PBX under **Overviews > Ports**.

Enter SIP port.

SIP session timer ☑ ☐

☑ The SIP session timer regularly verifies if the call connection still exists. (The telephone/PBX cannot recognize if the provider interrupts the call connection).

SIP session timer interval (min.) (5...6)

Indicates after how many minutes the SIP session timer should check the call connection.

Note: The enabling of the SIP session timer can cause increased breaks in conversations after the set interval, if a provider has not implemented the renewal of the session cleanly. In this case, you should disable the SIP session timer.

◉ ○ **SIP transport protocol**

UDP (User Datagram Protocol) is used to send data packet over non-secure communication lines without a connection. This means that successful transmission is dependent on the application and is therefore not always guaranteed. UDP itself does not verify whether data has been transmitted successfully. When a UDP packet is sent, the sender cannot assume that the packet will indeed arrive at the recipient. This particular protocol needs only a small amount of additional information, and results in a better data throughput rate in a well-functioning network, e.g., on a LAN. UDP is used, e.g., for the DNS (Domain Name Server).

TCP (Transmission Control Protocol) is a transport protocol that segments data into packets up to a specified size and reliably sends these individual data packets in the correct sequence to the recipient address. In this process, every data packet sent must be resent until it has been confirmed as arrived. In order to make sure this happens, a large amount of information is sent along with the actual payload data. Most Internet services are implemented with TCP, e.g., HTTP (WWW), SMTP/POPS (e-mail), etc.

Important: If encryption is enabled by SIPS, the TCP transport protocol is used. Manual settings are overwritten.

- **UDP**: UDP is used.
- **TCP**: TCP is used.

Server type

- **Default SIP server**: Server for the normal system telephone operation.
- **Broadsoft server**: Server for providers with Broadsoft certification.
- **ESTOS CSTA (ECSTA)**: Server for the use of uaCSTA.

Session Initiation Protocol Security (SIPS) ☑ ☐

Requirements:

- SIP account: A certificate, saved on the hard disk

Important: If you are using this on the PBX, the PBX specifies the encryption method. The PBX overwrites manual settings.

☑ Overhearing of VoIP conversations will be prevented, as these connections are encrypted. The connection setup and termination, and also signalling, are encrypted with SIPS. The call data is encrypted with SRTP.

Note: If you have saved a root certificate for encrypting calls in your PBX, this is uploaded automatically to the telephone. You must enter the root certificate fingerprint in the telephone so that the root certificate can be verified.

- Set PBX Account: **Fingerprint for SIPS certificate** . Enter fingerprint.
- Set SIP account: **Import certificate** . Import certifcate from the hard disk.

URL structure

SIPS: Encryption of SIPS via TLS.

SIP/TLS: Encryption of SIP via TLS.

Disable host name check ☑ ☐

☑ No verification whether the certificate belongs to the domain/IP.

NAT

NAT (Network address translation) converts an IP address of an e. g. private network into an IP address of the public network. All computers that communicate with each other within a private network, receive Internet access via only one IP address. The internal IP addresses of the private network are not accessible for the Internet.

◉ ○ **SIP NAT traversal**

If NAT traversal is switched on and a query is sent from a local IP address to the public network, the sending IP address is swapped with the public IP address. This function is performed in the reverse direction for the reply.

Requirements:

- Set DNS server
- STUN server set up for the provider/PBX, if the **Enabled with STUN** option has been selected
- If the **enabled** option has been selected: the **registrar** enabled for the provider/PBX

Important: Every port opening on the NAT router is a security risk. Perform the appropriate security measures.

Enabled ◉ : NAT traversal is performed by the provider/PBX. The SIP request also contains an "rport" part in which the IP addresses used here (local, public) are transported.

Disabled : NAT traversal is not performed by the provider/PBX. The router, which connects the Local Area Network with the Internet, should be a properly functioning, SIP-aware router which performs NAT traversal.

Enabled with STUN : NAT traversal is performed by the provider/PBX. To achieve this, you must also enter a **STUN server** under **Settings**.

Note: If **Enabled** is selected: if there are problems with unilateral call connections, a STUN server should be used (**enabled when you are using STUN**).

RTP NAT traversal

If NAT traversal is switched on and a query is sent from a local IP address to the public network, the sending IP address is swapped with the public IP address. This function is performed in the reverse direction for the reply.

Requirements:

- Set DNS server
- STUN server set up for the provider/PBX, if the **Enabled with STUN** option has been selected
- If the **enabled** option has been selected: the **registrar** enabled for the provider/PBX

Important: Every port opening on the NAT router is a security risk. Perform the appropriate security measures.

Disabled : NAT traversal is not performed by the provider/PBX. The router, which connects the Local Area Network with the Internet, should be a properly functioning, SIP-aware router which performs NAT traversal.

Enabled with STUN : NAT traversal is performed by the provider/PBX. To do this, you must also specify a STUN server.

STUN server

A STUN server provides subscribers on a private network information on request. This information includes the IP address and port outside their private network that is considered as the source of their data. This information is entered in the requests, instead of the actual private IP address/port.

STUN server IP/URL

Enter STUN server IP/URL.

STUN server port (1...65535)

Enter STUN server port.

STUN server query interval (min) (1...60)

Enter interval.

Requirements:

- Set DNS server

Note: If there are problems with unilateral call connections, enabling the RTP might help.

Important: Each port forwarding is a security risk. For this reason, we recommend you use this function only if absolutely necessary.

NAT keep alive

Keep alive maintains the connection between client and server by sending NAT keep alive packets which prevent the interruption of the connection. An intveral for the sending of those NAT keep alive packets must be determined. This interval indicates after how many seconds NAT keep alive packets are send to maintain the NAT mapping in the firewall.

☑ NAT keep alive is enabled and an additional entry must be made:

☐ NAT keep alive interval (sec.) (15...255)

Enter NAT keep alive interval.

Note: Some providers lock accounts if the **NAT keep alive interval (sec.)** is too short. As a rule, this is reported with error message 503 during SIP registration. If this problem occurs, we recommend you reduce the value (e.g. to 180).

RTP

Codecs ◉ ○

A codec is a method that encodes (digitises) analogue voice data for transmission and again decodes again, meaning converts into back into voice. There are various codecs that feature different voice data compression rates thereby require different band widths for data transmission. The equality of VoIP calls is dependent on the codec used.

Notes:

If a codec with high bandwidth (e.g. G.711) produces too much interference in the call quality, the connection bandwidth might not be sufficient. If these types of disruptions happen frequently, we recommend you select codecs with a lower band width.

Not every codec is supported by every provider.

Best available quality ◉ : Codec G.722 has priority level 1, Codec G.711 has priority level 2 and Codec iLBC has priority level 3.

Best possible compression ◉ : Codec iLBC has priority level 1, Codec G.722 has priority level 2 and Codec G.711 has priority level 3.

Force G711 ◉ : Codec G.711 is required.

Music on hold ☑ ☐

Requirements:

- **int Auerswald PBX sub system IPv4 *** profile not selected

☑ When putting a caller on hold, music on hold will be played.

DTMF signalling ◉ ○

At DTMF signalling, a sound of two overlapped sound frequencies is assigned to each digit of the keypad. Here, you must select how the DTMF signalling is to be transmitted. This is critically depened on the provider and the transmission path.

Note: If your are unsure which DMFT signalling type you must select, you cand find out the right type by trying them out.

Outband, with local response in acc. with RFC2833 ⊙ : The telephone uses different channels to transfer DTMF signals and voice data. The DTMF signals are filtered out of the voice data. You hear a confirmation tone to confirm that the DTMF signals have been sent successfully.

Inband, DTMF signals sent through the audio channel ⊙ : The telephone uses the same channel (DTMF tones) to transfer DTMF signals and voice data.

Outband, in acc. with RFC2833 ⊙ : The telephone uses different channels to transfer DTMF signals and voice data. The DTMF signals are filtered out of the voice data.

Jitter buffer (ms) (40...160)

The size of the jitter buffer shows how many RTP packets can be buffered, to bridge or compensate disruptions.

Jitter buffer size entry in milliseconds (duration of the audio signal).

Lower values: A lower number of RTP packets can be cached in order to buffer disruptions or to compensate for them.

Greater values: A greater number of RTP packets can be cached in order to buffer disruptions or to compensate for them.

SRTP

To prevent anyone from eavesdropping VoIP conversations, you can encrypt these connections. The connection setup and termination, and also signalling, are encrypted with SIPS. The call data is encrypted with SRTP.

Important: If you are using this on the PBX, the PBX specifies the encryption method. The PBX overwrites manual settings.

Disabled: Forces de-activation of call data encryption by SRTP. The connection is not established if the call partner (VoIP provider, other PBX in the sub-system operation, external VoIP subscriber) requires call data to be encrypted by SRTP.

Preferred: Switches on negotiation for the encryption of call data by SRTP. When a call is made, the call partner will be asked if encryption is possible. If so, the call data will be encrypted and then transmitted, if not, the call data will not be encrypted.

Mandatory: Forces activation of call data encryption by SRTP. The connection is not established if the call partner (VoIP provider, other PBX in the sub-system operation, external VoIP subscriber) does not support the encryption of call data by SRTP.

NUMBER SETTINGS

☑ ☐ Use of public exchange subscriber numbers

Public exchange subscriber numbers must be used for PBXs which allow you to dial external telephone numbers without preceding exchange line access numbers or characters (e. g. 0 or **). Such PBXs automatically detect whether exchange line access is required or not.

Requirements:

- No operation on the PBX
- Set type **PBX**

☑ Call acceptance rules for internal and external will be applied when a call comes in. In addition, you can forward an incoming call to an external telephone number without having to dial the exchange line access number.

Exchange line access number

Requirements:

- Selected type **PBX** (page Settings > Providers & PBXs > Provider)

Note:

After you dial the exchange line access number, the external dial tone indicates that an external line is free. The external number can then be dialled.

You can also request an exchange line from the telephony app. Tap on to display the list of external contacts and dial an external account (public exchange). Tap on to display the list of internal contacts. Only internal telephone numbers can be dialled.

The exchange line access number of the PBX is „0“ in the factory settings but can be changed in some PBXs.

Enter the exchange line access number. When used as a system telephone the exchange line access number is automatically transferred from the PBX.

Keypad sequence

Keypad sequences enable you to control features by entering characters and number sequences via the phone keys, e.g. to make pick-ups or InterCom announcements.

Important: If operated as a system telephone on the PBX, the keypad sequences are predefined by the PBX. The PBX overwrites any keypad sequences you have entered manually.

Note: When selecting the type **Public exchange (Internet VoIP provider)** under **Settings > Providers & PBXs > Configure > Provider > Type** some keypad sequencens and the exchange line access number are not available.

Enter keypad sequence : The following keypad sequences for PBX operation are available:

Pick-up: The keypad sequence is required to carry out pick-ups on PBXs where a pick-up sequence is mandatory for this function. Information from SIP notify messages are not taken into consideration.

InterCom announcement: The keypad sequence is required to make an InterCom announcement. InterCom announcements can also be made on accounts where the telephone is not used as system telephone.

InterCom hands-free calling: The keypad sequence is required to enable Intercom hands-free calling at a destination which does not support automatic call acceptance.

Alarm confirmation: The keypad sequence is required to acknowledge an alarm call with the keypad.

Waiting loop: For moving into the waiting loop.

Evaluation of incoming SIP messages

Depending on the SIP provider, the phone number of the caller can be in different locations in the SIP message. The following options and settings must be selected and made to determine at which location of the SIP message the phone number shall be searched.

Two different phone numbers can be transmitted: The actual phone number of the caller (screened number/network provided number) and a number self-selected by the caller (unscreened number/user provided number). If a network provided number is extracted from the SIP message, functions such as Call Through can be used.

Evaluation type

Standard: Selects an evaluation method for phone numbers which will work for most providers.

Standard (use From headers as screened-number): Selects an evaluation method for phone numbers which will work for most providers. The user provided number (corresponds to CLIP no screening) of the header “From“ will be taken over into the network provided number. The phone numbers can, for example, be used for Call Through via VoIP.

Caution: If you have selected this option, your telephone and your PBX are vulnerable to attacks, for example by transmission of a phone number manipulated by the attacker. Therefore, to protect your telephone and PBX, assure yourself that the VoIP provider has integrated sufficient security measures in the number presentation.

As described in RFC3325: Selects a phone number evaluation method in accordance with RFC 3325 (http://www.ietf.org/RFC/rfc3325.txt). This method of evaluating phone numbers is used if the number presentation is guaranteed by security mechanisms.

User-defined: If the **Default** and **As described in RFC3325** options are unsuccessful, you can also define your own method of evaluating a phone number within certain limits.

Notes:

The phone number to be evaluated should preferably be canonical (+445306.... or 00445306…). Otherwise it is not used for evaluation.

The designations used for the settings match the designations used in Wireshark.

Network-provided number: Network-verified incoming phone number: The sequence entered in the invite is searched for the phone number which can be analysed.

User-provided number: Non-verified incoming phone number (corresponds to CLIP no screening): The sequence entered in the invite is searched for the phone number which can be analysed. Optional: is not transferred by all providers.

User-provided name: Caller's name in plain text. Optional: is not transferred by all providers.

Internationalise unknown numbers ☑ ☐

☑ Phone numbers which are not transferred in the usual format: (e. g. +445306… or 00445306…) are converted into this format.

Number presentation (outgoing)

You need to input the following information to ensure that the telephone transfers the data (e.g. the called phone number, its own phone number) to the provider in the correct format:

- **Format of called party number** ◉ ○ : Format, in which the provider requires the phone number of the called party number to transfer the call.

Note: The telephone automatically converts called phone numbers into this format when it makes calls via the provider. If you dial a number without a prefix, the local area code therefore applies (**Settings > Accounts > Country and area code**).

  - **With country code and area code** (0044 5306): The called phone number is sent to the provider along with its entire country code (e.g. 0044).
  - **With country code and area code** (+44 5306): The called phone number is sent to the provider with a plus sign (+) and the entire country code (e.g. +44).
  - **With country code and area code** (44 5306): The called phone number is sent to the provider with a shortened country code (without international prefix (number), e.g. 44).
  - **With area code** (05306): The called phone number is sent to the provider without a country code.
  - **Unchanged (as dialled)**: The called phone number is sent to the provider unchanged.
- **Format of own number** ◉ ○ : Format in which your own phone number, that is to be transmitted, is to be supplied to the provider.

Note: Your own phone number is automatically converted into the selected format. If you have entered your own phone numbers in the

telephone without prefixes, the local area code applies to them during conversion (**Settings > Accounts > Country and area code**).

  - **With country code and area code** (0044 5306): Your own phone number is sent to the provider along with its entire country code (e.g. 0044).
  - **With country code and area code** (+44 5306): Your own phone number is sent to the provider with a plus sign (+) and the entire country code (e.g. +44).
  - **With country code and area code** (44 5306): Your own phone number is sent to the provider with a shortened country code (without international prefix (number), e.g. 44).
  - **With area code** (05306): Your own phone number is sent to the provider without a country code.
  - **Only port number (MSN / DDI + main number)**: Only your own connection number (MSN/DDI main number + DDI) is to sent to the provider.
  - **dial (DDI)**: Only your own Direct Dial In (DDI) is sent to the provider.

- **Method for calling line identity restriction** ◉ ○ : Calling line identity restriction by the provider with or without display text.
  - **No display text**: If calling line identity restriction is enabled, no display text is sent to the called phone number by the provider
  - **Anonymous**: If calling line identity restriction is enabled, the display text "anonymous" is sent to the called phone number by the provider.
  - **User Anonymous**: If calling line identity restriction is enabled, the display text "user anonymous" is sent to the called phone number by the provider.

- **Manner of number presentation** ◉ ○ : Range in which the provider expects to receive phone numbers from the telephone.

- **In the display text**: Your own external number, which is to be transmitted to the called phone number, is transferred to the provider in the "Display text" field.
- **In the username**: Your own external number, which is to be transmitted to the called phone number, is transferred to the provider in the "Username" field.
- **As described in RFC3325 with P-Asserted-Identity**: Your own external number, which is to be transmitted to the called phone number, is transferred to the provider in the "P-Asserted-Identity" field.
- **As described in RFC3325 with P-Preferred-Identity**: Your own external number, which is to be transmitted to the called phone number, is transferred to the provider in the "P-Preferred-Identity" field.
- **Custom**: Uses user-defined settings for number presentation.

Notes: The **Custom** option requires additional settings:

From

Settings for setting up the "From" header.

P-Asserted-Identity

Settings for setting up the P-Asserted-Identity" header.

P-Preferred-Identity

Settings for setting up the "P-Preferred-Identity" header.

Call type determination via alert-info

A specific ringtone can be assigned to the different call types of a SIP account. The required information is transmitted by the SIP provider.

Requirements:

- Telephone is a not system telephone on the PBX

To assign a ringtone to a call, the link leading to the ringtone must be set into the alert info header.

<http://my.server.com/my_ringtone.mp3>

Subsequently, the link is evaluated in two different ways:

- Here, it is checked if the text that, for example, signalises door calls is found in the alert info header. If this is applicable, the ringtone that was configured for door calls is played.
- If the call is not assigned to a specific call type and also no other ringtone is configured, (for example in the contacts, ringtone for exchange line or the group to that the call is assigned to) it is attempted to load and play the audio file within 3 seconds. If this is not possible, the default ringtone will be played.

Note: Some providers already have fixed information for some call types.

An alert info can be entered for the following call types:

Internal calls

Internal priority calls

External calls

Group calls

Alarm calls

Wake-up calls

Door calls

Silent calls

User-defined call type (up to 5 different call types)

Likewise, images belonging to a call can be transmitted via SIP. For this, the link to the image must be set into the call info header and the parameter "purpose" must be set on "icon".

<http://my.server.com/my_image.jpg>;purpose=icon>

This will also work for webcam images. Additionally, it can be entered in which time intervals the image shall be reloaded. For this, the parameter "refresh" is used. The entered value equals the repetition interval in milli-seconds.

<http://my.server.com/my_webcam.jpg>;purpose=icon;refresh=333>

Webcams can also be used without entering a value for this parameter. After 3 and 10 seconds, the phone reloads the image. If it has changed during this time interval, subsequently, it is reloaded regularly. If this is not desired, 0 must be entered for the "refresh" parameter.

<http://my.server.com/my_webcam.jpg;purpose=icon;refresh=0>

Accounts

You can create up to 100 accounts with VoIP providers or on PBXs on your telephone.

However, before you can get the access data you need to make VoIP calls, you first need to set up accounts with one or more VoIP providers. To do this, use your name and address data to register on the provider's website. After that, you will be assigned one or more phone numbers that can be reached from the land line and the Internet, and also an account with a username and password. The registered connection usually becomes active within a few minutes and can be used very soon after that.

The Account overview under **Settings > Accounts** shows two different types of account:

- Own accounts:

  These are your own telephone accounts that you created on the telephone or by using its Configuration Manager with the VoIP provider or on a PBX.
- PBX accounts:

  These are additional accounts created by the PBX when you set up your own account and which are used for direct or specific exchange line access.

Note: Additional PBX accounts are only generated if an exchange line access number has been entered when the provider/PBX was being created.

Proceed as follows for configuration:

- Configuring and setting accounts.
  - Using the Configuration Manager (page **Settings > Accounts**)

  - Using the telephone (page **> Settings > Accounts**)

- Configuring a function key for the use of the account.
  - Using the Configuration Manager (page **> Function keys**)
  - Using the telephone (page **> Function keys**)

Management Configuration Manager Accounts

Proceed as follows:

- Using the Configuration Manager (page **Settings > Accounts**)

+ New

Requirements:

- At least one configured provider/PBX
- Knowledge of the internal number for the telephone entered in the PBX configuration, or the user name assigned by the VoIP provider
- Knowledge of the password entered in the PBX configuration, or assigned by the VoIP provider
- Knowledge of the Authentication ID assigned by the VoIP provider, if required

A new account will be added to the account list.

Delete

Important: You can only restore deleted accounts if you have backed up their data to the data storage device in the telephone.

The selected account will be deleted.

Management Telephone Accounts

Proceed as follows:

- Using the telephone (page **> Settings > Accounts >** Menu)

New Account

A new account will be added to the account list.

Delete all accounts

All accounts in the list will be deleted.

Note: Touch and hold the account name, to individually delete, edit, register the account or set it as default.

Register account

Requirements:

- Registrar configured for the provider/PBX

Touch and hold the account name to register the account. An account can have the following statuses:

- disabeld
- is being registered
- successfully registered
- could not be registered
- registered at this account as system telephone

Settings Configuration Manager Account

Proceed as follows:

- Using the Configuration Manager (page **Settings > Accounts > Configure**)

Account settings

Account name

Enter account name.

Use

☑ The PBX can use this account for external calls.

System telephone ☑ ☐

Note: If the telephone is used as a system telephone for an account, all the PINs and passwords, and also the prefixes entered for this account are overwritten by the PBX.

☑ Telephone is system telephone at the account. The telephone can be used as a system telephone on no more than one account and control the following functions on the PBX:

- External line transfer
- Boss/secretary function
- Targeted exchange line access
- Group
- Group function off
- Configuration Switchover
- Relay
- Call forwarding for external subscribers
- Announcement before answering for group
- Door function

To operate this as a system telephone, you require one of the following PBXs:

- COMpact 4000
- COMpact 5010 VoIP
- COMpact 5020 VoIP
- COMpact 5000/R
- COMpact 5200/R
- COMpact 5500/R
- COMmander 6000/R/RX

To support the system telephone, the PBX needs at least the following firmware versions:

- COMpact 5010 VoIP, COMpact 5020 VoIP: 4.2E
- COMpact 5000/5200/5500/R: 6.2A
- COMmander 6000/R/RX: 6.0C

Default account (standard) ☑ ☐

Note: To use a different account than the default account for a single call, pick up the receiver or press the **hook key**. Tap on the **VoIP account** field in the dial window and select the account from the list.

☑ This account will be used as the default account.

☐ To use this account, it has to be selected manually.

Take over the default account from the PBX ☑ ☐

Note:

To use a different account than the default account for a single call, pick up the receiver or press the **hook key**. Tap on the **VoIP account** field in the dial window and select the account from the list.

The adoption of the default account from the PBX is possible as of firmware 6.6 (PBX) and 2.4 (VoIP telephones).

☑ The telephone sets the account for the direct exchange line as default account.

Username

Requirements:

- Knowledge of the internal number for the telephone entered in the PBX configuration, or the user name assigned by the VoIP provider

Enter username (username of the VoIP provider or, if the telephone is connected to the PBX, the internal number (MSN) that is entered in the configuration of the PBX).

Password

Requirements:

- Knowledge of the password entered in the PBX configuration, or assigned by the VoIP provider

Enter password (password from the VoIP provider, or, if the telephone is connected to the PBX, the password that is entered in the configuration of the PBX). If no password was entered in the PBX, no entry must be made.

Authentication ID

The authentication ID (authentication identification) is assigned by some VoIP providers when you configure an account. You need this ID to access the account.

Requirements:

- Knowledge of the Authentication ID assigned by the VoIP provider, if required

Enter authentication ID. If the VoIP provider did not assign an authentication ID, or the telephone is connected directly to the PBX, no entry must be made.

Providers & PBXs

Requirements:

- At least one provider/PBX profile has already been set up

Note: Some providers/PBXs are already pre-configured in the factory settings. In total you can configure up to 10 providers/PBXs.

Select the provider/PBX.

DDI main number

The DDI (Direct Dial In) is the extension number for dialling directly to a specific subscriber on a telephone system. Example: In the number 0 53 06 / 92 00 - 700, 700 is the Direct Dial In number (DDI) for the Auerswald info-line.

Requirements:

- Set connection type **SIP trunking** (Settings > Accounts > Account settings)

Enter the DDI main number (e. g. 92 00) without area code assigned by the VoIP provider.

Note: If you assigned a DDI main number, in the Configuration Manager under Settings > Accounts > Configure > Numbers > Configure, you must also enter the DDI number for the telephone in the entry filed **Number** and select **DDI (Direct Dial In)** in the list field **Subscriber number type**. The DDIs are assigned by the provider.

Connection type ◉ ○

Note: If you select the **SIP trunking** connection type, you must then enter a DDI main number.

◉ **Standard connection:** Corresponds to a PTMP connection with several internal numbers (MSNs).

◉ **SIP trunking:** It is the same as a PTP connection with Direct Dial In option. The VoIP provider assigns a main number with Direct Dial In (DDI), e. g. 92 00 - 0.

Country and area code

Area code

Country

Country code

Requirements:

- Use as system telephone disabled

Note: The country and area code of this account are replaced by the prefixes stored in the PBX as soon as the use of this telephone as a system telephone on a PBX is enabled.

Enter area code and select the country of the PBX location or enter the VoIP number assigned by the provider. The country code can be entered directly in the **Country code** field (with 00, and a maximum of six digits). However, this entry is overwritten as soon as a different country is selected.

BLF resource list subscription

BLF (Resource List Subscription) is a SIP function. For every VoIP account that has Direct Dial In numbers (DDI numbers), a Resource List Subscription can be created which monitors the engaged status of other extensions with DDI numbers.

Requirements:

- Knowledge of the VoIP provider's subscription URI

Important: The BLF resource list subscription function (BLF according to RFC 4662) is currently not available on PBXs.

☑ The busy status will be displayed via the corresponding speed dialling key. An additional entry must be made:

User part of subscription URI

Enter user part of subscription URI. You will receive the subscription URI from your VoIP provider. The user part is the character string in front of the @ character.

InterCom permission (SIP account) ☑ ☐

InterCom enables an announcement to another telephone or to a telephone of a group without anyone actively accepting the call. If the InterCom destination is a single telephone, the microphone can, additionally to the loudspeaker, be switched on (InterCom hands-free) so that the caller can speak to a person at the InterCom destination.

Requirements:

- The telephone is not a system telephone on the PBX

☑ InterCom announcement or InterCom hands-free calling can be performed at the corresponding InterCom destination.

InterCom type (SIP account)

Requirements:

- The telephone is not a system telephone on the PBX

Announcement: The caller's system telephone can be programmed to switch on the microphone in addition to the loudspeaker (hands-free) so that a person nearby can speak with the caller using this intercom system

Hands-free calling: Enables an announcement to system telephones (one telephone or group) from any internal telephone without someone having to actively receive a call (for example, in a doctor's office)

Numbers

Multiple subscriber number (MSN)/Direct Dial In (DDI) > Configure

+ New

A new phone number will be added to the account.

Name

Enter a phone number name.

Number

Enter the phone number without area codes or the user part of the SIP URI. The user part is the character string in front of the @ character.

Standard connection: internal number (MSN)

SIP trunking: DDI or MSN

Default subscriber number

☑ Subscriber number is used as default for outgoing calls.

Subscriber number type (only active if **SIP trunking** has been selected.)

DDI (Direct Dial In): Direct dialling to the DDI main number

MSN (subscriber number): multiple subscriber number took on from an ISDN to a VoIP connection

Ringtone

Slect the ringtone.

Call acceptance rule answering machine ☑ ☐

Requirements:

- Activated answering machine

☑ The account uses own call acceptance rules for calls via the corresponding phone number.

Note: Call acceptance rules for anonymous calls and contacts still have a higher priority.

☐ The account uses the call acceptance rules configured for the answering machine.

Call acceptance

Announcement and recording: At the end, the caller hears the selected announcement and can then leave a message on the answering machine.

Announcement only: At the end, the caller hears the selected announcement; however, they cannot leave a message on the answering machine.

No call acceptance: The call from this caller is not accepted by the answering machine. If remote access is enable, this option has no effect.

Announcement

Default announcement: A default announcement is used.

Own announcement: An own-recorded announcement is used.

Voice mailboxes

+ New

Important: The voice mailbox (SIP account) is only available on the PBXs COMpact 4000, COMpact 5000/R, COMpact 5200/R, COMpact 5500R and COMmander 6000/R/RX (PBX firmware version 6.4A or later).

To use the voice mailbox functions of a standard VoIP account, the specified settings from the VoIP provider must be made:

Voice mailbox name

Enter the name.

Voice mailbox number

Enter voice mailbox number.

Note: Each status message is assigned a phone number to enable you to identify the associated voice mailbox. You must enter the a phone number to ensure that the status message is uniquely assigned to a single voice mailbox. This phone number does not have to match the phone number you use to listen to messages.

Number for retrieving voice messages

Enter the number for fetching messages

Note: This phone number is used to fetch messages, by pressing the message key and, if required, a function key to which the MWI function is assigned. If you do not enter a phone number for fetching messages, the mailbox's number is used instead.

Explicit Message Waiting Indication subscription ☑ ☐

MWI (Message Waiting Indication) is a SIP function which allows to signal the presence of new voice and fax messages on internal VoIP end devices. Signalling is possible for all voice mail and fax boxes for which the subscriber in question is entered as user.

☑ The status of the voice mailbox will be monitored and signalled via the message key LEDs.

Note: Some VoIP providers do not send status messages until they have been explicitly requested by the telephone. Disable this option if the VoIP provider sends status messages without you having to request them.

MWI subscription number

Enter MWI subscription number.

Personal voice mailbox ☑ ☐

☑ Mailbox is used as personal mailbox for this account.

Note: If a VoIP account has several voice mailboxes, the LEDs on the message key always display the status of all the configured voice mailboxes. It is not possible to switch on the display just for one particular voice mailbox on a VoIP account. In this case use the "Personal voice mailbox" function to display the status of a particular voice mailbox in the status line.

Settings Telephone Account

Proceed as follows:

- Using the telephone (page **> Settings > Accounts**)

Account settings

Use ☑ ☐

☑ The PBX can use this account for external calls.

Account name

Enter account name.

Providers & PBXs

Requirements:

- At least one provider/PBX profile has already been set up

Note: Some providers/PBXs are already pre-configured in the factory settings. In total you can configure up to 10 providers/PBXs.

Select the provider/PBX.

System telephone ☑ ☐

Note: If the telephone is used as a system telephone for an account, all the PINs and passwords, and also the prefixes entered for this account are overwritten by the PBX.

☑ Telephone is system telephone at the account. The telephone can be used as a system telephone on no more than one account and control the following functions on the PBX:

- External line transfer
- Boss/secretary function
- Targeted exchange line access
- Group
- Group function off
- Configuration Switchover
- Relay
- Call forwarding for external subscribers
- Announcement before answering for group
- Door function

To operate this as a system telephone, you require one of the following PBXs:

- COMpact 4000
- COMpact 5010 VoIP
- COMpact 5020 VoIP
- COMpact 5000/R
- COMpact 5200/R
- COMpact 5500/R
- COMmander 6000/R/RX

To support the system telephone, the PBX needs at least the following firmware versions:

- COMpact 5010 VoIP, COMpact 5020 VoIP: 4.2E
- COMpact 5000/5200/5500/R: 6.2A
- COMmander 6000/R/RX: 6.0C

Take over the default account from the PBX ☑ ☐

Note:

To use a different account than the default account for a single call, pick up the receiver or press the **hook key**. Tap on the **VoIP account** field in the dial window and select the account from the list.

The adoption of the default account from the PBX is possible as of firmware 6.6 (PBX) and 2.4 (VoIP telephones).

☑ The telephone sets the account for the direct exchange line as default account.

Username

Requirements:

- Knowledge of the internal number for the telephone entered in the PBX configuration, or the user name assigned by the VoIP provider

Enter username (username of the VoIP provider or, if the telephone is connected to the PBX, the internal number (MSN) that is entered in the configuration of the PBX).

Password

Requirements:

- Knowledge of the password entered in the PBX configuration, or assigned by the VoIP provider

Enter password (password from the VoIP provider, or, if the telephone is connected to the PBX, the password that is entered in the configuration of the PBX). If no password was entered in the PBX, no entry must be made.

Authentication ID

The authentication ID (authentication identification) is assigned by some VoIP providers when you configure an account. You need this ID to access the account.

Requirements:

- Knowledge of the Authentication ID assigned by the VoIP provider, if required

Enter authentication ID. If the VoIP provider did not assign an authentication ID, or the telephone is connected directly to the PBX, no entry must be made.

Country and area code

Area code

Country

Country code

Requirements:

- Use as system telephone disabled

Note: The country and area code of this account are replaced by the prefixes stored in the PBX as soon as the use of this telephone as a system telephone on a PBX is enabled.

Enter area code and select the country of the PBX location or enter the VoIP number assigned by the provider. The country code can be entered directly in the **Country code** field (with 00, and a maximum of six digits). However, this entry is overwritten as soon as a different country is selected.

Connection type

Note: If you select the **SIP trunking** connection type, you must then enter a DDI main number.

Standard connection: Corresponds to a PTMP connection with several internal numbers (MSNs).

SIP trunking: It is the same as a PTP connection with Direct Dial In option. The VoIP provider assigns a main number with Direct Dial In (DDI), e. g. 92 00 - 0.

DDI main number

The DDI (Direct Dial In) is the extension number for dialling directly to a specific subscriber on a telephone system. Example: In the number 0 53 06 / 92 00 - 700, 700 is the Direct Dial In number (DDI) for the Auerswald info-line.

Requirements:

- Set connection type **SIP trunking** (Settings > Accounts > Account settings)

Enter the DDI main number (e. g. 92 00) without area code assigned by the VoIP provider.

Note: If you assigned a DDI main number, in the Configuration Manager under Settings > Accounts > Configure > Numbers > Configure, you must also enter the DDI number for the telephone in the entry filed **Number** and select **DDI (Direct Dial In)** in the list field **Subscriber number type**. The DDIs are assigned by the provider.

BLF resource list subscription

BLF (Resource List Subscription) is a SIP function. For every VoIP account that has Direct Dial In numbers (DDI numbers), a Resource List Subscription can be created which monitors the engaged status of other extensions with DDI numbers.

Requirements:

- Knowledge of the VoIP provider's subscription URI

Important: The BLF resource list subscription function (BLF according to RFC 4662) is currently not available on PBXs.

☑ The busy status will be displayed via the corresponding speed dialling key. An additional entry must be made:

User part of subscription URI

Enter user part of subscription URI. You will receive the subscription URI from your VoIP provider. The user part is the character string in front of the @ character.

InterCom permission (SIP account) ☑ ☐

InterCom enables an announcement to another telephone or to a telephone of a group without anyone actively accepting the call. If the InterCom destination is a single telephone, the microphone can, additionally to the loudspeaker, be switched on (InterCom hands-free) so that the caller can speak to a person at the InterCom destination.

Requirements:

- The telephone is not a system telephone on the PBX

☑ InterCom announcement or InterCom hands-free calling can be performed at the corresponding InterCom destination.

InterCom type (SIP account)

Requirements:

- The telephone is not a system telephone on the PBX

Announcement: The caller's system telephone can be programmed to switch on the microphone in addition to the loudspeaker (hands-free) so that a person nearby can speak with the caller using this intercom system

Hands-free calling: Enables an announcement to system telephones (one telephone or group) from any internal telephone without someone having to actively receive a call (for example, in a doctor's office)

NUMBERS

Multiple subscriber number (MSN)/Direct Dial In (DDI) > Configure

NEW NUMBER

A new number will be added to the account.

Name

Enter a phone number name.

Number

Enter the phone number without area codes or the user part of the SIP URI. The user part is the character string in front of the @ character.

Standard connection: internal number (MSN)

SIP trunking: DDI or MSN

Default subscriber number ◉ ○

◉ Subscriber number is used as default for outgoing calls.

Subscriber number type ▾ (only active if **SIP trunking** has been selected.)

DDI (Direct Dial In): Direct dialling to the DDI main number

MSN (subscriber number): multiple subscriber number took on from an ISDN to a VoIP connection

Ringtone ▾

Slect the ringtone.

Call acceptance rule answering machine ☑ ☐

Requirements:

- Activated answering machine

☑ The account uses own call acceptance rules for calls via the corresponding phone number.

Note: Call acceptance rules for anonymous calls and contacts still have a higher priority.

☐ The account uses the call acceptance rules configured for the answering machine.

Call acceptance ▾

Announcement and recording: At the end, the caller hears the selected announcement and can then leave a message on the answering machine.

Announcement only: At the end, the caller hears the selected announcement; however, they cannot leave a message on the answering machine.

No call acceptance: The call from this caller is not accepted by the answering machine. If remote access is enable, this option has no effect.

Announcement

Default announcement: A default announcement is used.

Own announcement: An own-recorded announcement is used.

VOICE MAILBOXES

+ New

Important: The voice mailbox (SIP account) is only available on the PBXs COMpact 4000, COMpact 5000/R, COMpact 5200/R, COMpact 5500R and COMmander 6000/R/RX (PBX firmware version 6.4A or later).

To use the voice mailbox functions of a standard VoIP account, the specified settings from the VoIP provider must be made:

Voice mailbox name

Enter the name.

Voice mailbox number

Enter voice mailbox number.

Note: Each status message is assigned a phone number to enable you to identify the associated voice mailbox. You must enter the a phone number to ensure that the status message is uniquely assigned to a single voice mailbox. This phone number does not have to match the phone number you use to listen to messages.

Number for retrieving voice messages

Enter the number for fetching messages

Note: This phone number is used to fetch messages, by pressing the message key and, if required, a function key to which the MWI function is assigned. If you do not enter a phone number for fetching messages, the mailbox's number is used instead.

Explicit Message Waiting Indication subscription ☑ ☐

MWI (Message Waiting Indication) is a SIP function which allows to signal the presence of new voice and fax messages on internal VoIP end devices. Signalling is possible for all voice mail and fax boxes for which the subscriber in question is entered as user.

☑ The status of the voice mailbox will be monitored and signalled via the message key LEDs.

Note: Some VoIP providers do not send status messages until they have been explicitly requested by the telephone. Disable this option if the VoIP provider sends status messages without you having to request them.

MWI subscription number

Enter MWI subscription number.

Personal voice mailbox ☑ ☐

☑ Mailbox is used as personal mailbox for this account.

Note: If a VoIP account has several voice mailboxes, the LEDs on the message key always display the status of all the configured voice mailboxes. It is not possible to switch on the display just for one particular voice mailbox on a VoIP account. In this case use the "Personal voice mailbox" function to display the status of a particular voice mailbox in the status line.

Function Key for Use of an Account

Press the key to switch the account on or off or to toggle.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED Signalling on the Key:

Off	The account is disabled.
Yellow	The account has been registered (no system telephone).
Yellow blinking	The account is being registered.
Red	The account cannot be registered.
Green	The account has been registered.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Account readiness**
- Using the telephone by selecting **Account readiness**

Note: For further information about the general procedures when assigning function keys, see Function Keys.

Network

A network is a combination of more than one computer and other communication devices. This enables multiple users to access common resources such as files, printers, etc.

Procced as follows for configuration:

- Ethernet settings (Ethernet; VPN, Proxy, VoIP, IP black and white list).
  - Using the Configuration Manager (page **Settings > Ethernet > Ethernet**)
  - Using the telephone (page **> Settings > Ethernet**)
- Enabling/disabling Bluetooth (only COMfortel 3600 IP).
  - Using the Configuration Manager (page **Settings > Ethernet > Bluetooth**)
  - Using the telephone (page **> Settings > Ethernet > Bluetooth**)

Settings Configuration Manager Ethernet

Proceed as follows:

- Using the Configuration Manager (page **Settings > Network > Ethernet**)

Ethernet

☑ ☐ **DHCP**

DHCP (Dynamic Host Configuration Protocol) is a client/server protocol for dynamically allocating IP addresses and network parameters. The IP addresses are requested by the DHCP clients (PCs in the network) on the DHCP server (for example, a router or the Internet service provider). The DHCP server takes these IP addresses from a set address pool and sends them to the client. In addition, the client receives additional information (for example, the addresses for the standard gateway and DNS server). The IP address is temporarily allocated for a certain amount of time. If the address is no longer required by the client, the server has access to it again and can allocate it to another client.

☑ IP address is received automatically.

☐ The IP address must be assigned manually. Addtional entries must be made:

IP address

Enter IP address. In order to ensure that the data packets reach the correct recipients, all of the devices in a TCP/IP network require a unique address, known as the IP address. IPv4 addresses comprise four numbers between 0 and 255 that are separated by a point, for example, 192.168.0.14. The network addresses are divided up into different classes (Class A to C) depending on how many computers can be located in a network. Certain ranges are reserved for the operation of local networks:

- Class A: 10.x.x.x (for networks with up to 16.5 million PCs)
- Class B: 172.16.x.x to 172.31.x.x (for networks with up to 65534 PCs)
- Class C: 192.168.0.x to 192.168.255.x (for networks with up to 254 PCs)

These addresses have no validity on the Internet; this means that data packets with this sender type or recipient address cannot be transported on the Internet. However, they can be used in local networks without restriction.

The advantage of this is that if data from a local network configured in this way comes in contact with the Internet, none of the data on the computers in the local network can leak out or be accessed externally.

Net mask

Enter the subnet mask. Configuring subnetworks makes it possible to connect many totally different networks located in totally different areas because each subnetwork receives its own address and can therefore be addressed by the router. A subnetwork is created when the IP address is linked with a subnet mask. If a bit in the subnet mask is set, the corresponding bit in the IP address is considered a part of the network address. If a bit is not set in the subnet mask, the corresponding bit in the IP address is used as a part of the PC address. The value of the subnet mask, as with IP addresses, is often given in decimal form (for example, 255.255.255.0 for IPv4 addresses).

Gateway

Enter the gateway. A gateway is a PC or router that acts as an intermediary between two different networks. The Internet service provider is the gateway for direct Internet dial-up connections. If you use a router, this is the gateway in a local network.

DNS server 1

Enter the DNS server. DNS (Domain Name Service) is needed to translate Internet addresses. The name of a computer on the Internet (for example, **www.auerswald.de**) is assigned to the corresponding IP address. This service is provided by DNS servers at the various Internet service providers or by upper domain servers.

DNS server 2 (optional)

☑ ☐ **VLAN settings**

☐ **VLAN internal port**, ☐ **VLAN gateway**:

- All data packets are forwarded, unchanged, between the ports (POE port, PC port and internal port).

☑ **VLAN internal port**, ☐ **VLAN gateway**:

- The internal port is placed in its own VLAN. The associated data packets are protected and transported in this VLAN (tagged with the VLAN ID of the internal port and prioritised with the VLAN priority of the internal port).
- All data packets are forwarded, unchanged, between the POE port and the PC port.
- You can connect a non-VLAN-enabled device, such as a PC, to the telephone's external port (PC port) without adding this device to a VLAN. You can also connect additional telephones to the external port (daisy chain) and use your own VLANs in the telephones.

☑ **VLAN internal port**, ☑ **VLAN gateway**:

- The internal port is placed in its own VLAN. The associated data packets are protected and transported in this VLAN (tagged with the VLAN ID of the internal port and prioritised with the VLAN priority of the internal port).
- The external port is also placed in its own VLAN. The associated data packets are tagged with the VLAN ID of the external port and prioritised with the VLAN priority of the external port.
- You can connect a non-VLAN-enabled device, such as a PC, to the telephone's external port (PC LAN port) and add this device in the external port VLAN.

☑ ☐ **VLAN internal port**

A VLAN (Virtual Local Area Network) is a logical network within a physical network. You can use a VLAN to operate several logical networks in the same physical network, to represent a company's departments within the network in a logical way or to separate traffic streams on the network, e.g. to separate PC data from voice data and give them different priorities.

To run a VLAN, you require VLAN-enabled network components that comply with the IEEE 802.1Q standard.

Requirements:

- VLAN provided on the network
- Set up network interface type VLAN (can be configured in the telephone under **> Settings > Providers & PBXs > Name of provider/PBX > Network interface type**)

☑ VLAN is enabled and additional entries must be made:

VLAN ID internal port (1...4094)

Enter the internal VLAN ID port.

VLAN priority internal port (0...7)

Enter VLAN priority of the internal port (**0** (lowest priority) to **7** (highest priority).

☑ ☐ **VLAN gateway**

Requirements:

- Enabled VLAN

Important: Assign different values to the VLAN-ID internal port and the VLAN-ID external port.

☑ The external port is placed in a separate VLAN.

☐ All data packages are forwarded to the external port.

The following entries must also be made:

VLAN ID external port (1...4094)

Enter VLAN IP for the external port.

OpenVPN

☑ ☐ **OpenVPN**

OpenVPN allows the configuration of a virtual private network (VPN).

Requirements:

- ConfiguredVPN network interface type (Settings > Provider & PBXs > Settings Configuration Manager Providers and PBXs)
- OpenVPN configuration file saved into the telephone
- OpenVPN certificate saved into the telephone

☑ The telephone uses OpenVPN libraries to establish a VPN over a TLS/SSL-encrypted connection.

Important: When you restart the telephone, the time will be reset unless it is updated automatically by a time server (NTP server). As data packets are given a time stamp when they are encrypted, it is important that the current time is configured on the telephone (see chapter **Settings > Date and Time**). A connection cannot be established via a VPN if a data packet time stamp is different from the time on the telephone.

Config file > Import

Requirements:

- an OpenVPN configuration file (openvpn.cfg) saved on the hard disk

Import the configuration file as a part of the OpenVPN structure.

Config file deleting

Requirements:

- OpenVPN configuration file saved in the Configuration Manager

Delete the existing OpenVPN configuration file.

OpenVPN certificate > Import

Requirements:

- a certificate, saved on the hard disk

Import the OpenVPN certificate as a part of the OpenVPN structure.

OpenVPN certificate deleting

Requirements:

- OpenVPN certificate saved in the Configuration Manager

Delete the existing OpenVPN certificate.

OpenVPN log

View or open the OpenVPN log file. In the OpenVPN log file, all actions are logged which are performed when OpenVPN is enabled.

Proxy

☑ ☐ **Proxy**

A proxy server acts as the interface to the Internet or between two networks. For example, it receives queries from a computer in an intranet.

☑ The proxy, instead of the computer, connects to the Internet to forward queries and return the responses. If necessary, the responses are filtered. To achieve this, the HTTP proxy uses the Internet's HTTP protocol.

The following entries must also be made:

Proxy port (1...65535)

Note: You find an overview of the PBX ports in the Configuration Manager of the PBX under **Overviews > Ports**.

Proxy hostname

Bypass proxy for

Enter the address of the local host for which the proxy is to be bypassed. The following entries are possible (several entries are to be separated by a comma):

- IP address within the range from 0 to 255 (Example: 123.123.123.123)
- Hostname

VoIP

☑ ☐ **Quality of service: DiffServ (Differentiated Services)**

DiffServ (Differentiated Services) ist a method that organizes IP data packets for transmission or forwarding in service classes. A higher service class means that the data packets are treated preferentially (e. g. VoIP voice packets for a better voice quality).

Requirements:

- Available and enabled support for DiffServ in all active network components (e. g. hubs, switches, router, etc)

Note: DiffServ is not supported by all VoIP providers. When used in a standard VoIP account, these settings may not be applied in some situations.

☑ The activation of DiffServ requires a reboot of the telephone. For VoIP calls, the service class in accordance with RFC 4595 is set.

RTP port

The RTP port is a port on the local system and is used as outgoing port for RTP transfers.

Lowest RTP port (1024...65471)

Enter RTP port (port number).

RTP port range (64...256)

Enter RTP port range.

Note: You find an overview of the PBX ports in the Configuration Manager of the PBX under **Overviews > Ports**.

Enable blacklist and whitelist

As soon as the phone is connected to the Internet, there is a risk of attacks via the Internet, for example DoS (Denial of Service) attacks, or attacks aimed at the internal SIP server.

To prevent this, you can enable the blacklist.

☑ ☐ **Blacklist and whitelist**

If traffic from a particular IP address is judged as being too high - and therefore probably malicious- this IP address is blocked. This means accesses from this IP address to the telephone are blocked (block time). Initially this block lasts for five minutes. A note appears in the status line on the home screen. During the block time the telephone continues to monitor traffic from this IP address. If traffic from this IP address to the PBX continues to be too high, the single block time is extended (block time restarts).

Important: Switching off the IP blacklist and whitelist or restarting the telephone deletes all the entries in the locking list.

☑ Network-based access attempts, such as the number of data packets per second or SIP authentication failures are monitored and evaluated.

IP whitelist + New

Important:

To set the IP whitelist, contact the system administrator.

Only release as many IP address ranges as necessary. The larger the released address range, the greater the danger of attacks.

IP address

The telephone supports the IPv4 Internet protocol, with a prefix length of 0 to 32 bits.

Network prefix (CIDR)

The network prefix provides the net mask for the IP address and specifies how many IP addresses are released in a network range. The larger the network prefix, the fewer the number of IP addresses that are released.

Example

Example:

IP address	**192.168.0.240**
Network prefix	**Released address range**
8	192.x.x.x
16	192.168.x.x
24	192.168.0.x
32	192.168.0.240 (only the explicitly entered IP address is released.)

Blacklist and whitelist Delete

Requirements:

- Enabled blacklist and whitelist settings

Marked IP addresses under IP white or IP blacklist will be deleted.

Settings Telephone Ethernet

Proceed as follows:

- Using the telephone (page **> Settings > Network > Ethernet**)

Ethernet

☑ ☐ **DHCP**

DHCP (Dynamic Host Configuration Protocol) is a client/server protocol for dynamically allocating IP addresses and network parameters. The IP addresses are requested by the DHCP clients (PCs in the network) on the DHCP server (for example, a router or the Internet service provider). The DHCP server takes these IP addresses from a set address pool and sends them to the client. In addition, the client receives additional information (for example, the addresses for the standard gateway and DNS server). The IP address is temporarily allocated for a certain amount of time. If the address is no longer required by the client, the server has access to it again and can allocate it to another client.

☑ IP address is received automatically.

☐ The IP address must be assigned manually. Addtional entries must be made:

IP address

Enter IP address. In order to ensure that the data packets reach the correct recipients, all of the devices in a TCP/IP network require a unique address, known as the IP address. IPv4 addresses comprise four numbers between 0 and 255 that are separated by a point, for example, 192.168.0.14. The network addresses are divided up into different classes (Class A to C) depending on how many computers can be located in a network. Certain ranges are reserved for the operation of local networks:

- Class A: 10.x.x.x (for networks with up to 16.5 million PCs)
- Class B: 172.16.x.x to 172.31.x.x (for networks with up to 65534 PCs)
- Class C: 192.168.0.x to 192.168.255.x (for networks with up to 254 PCs)

These addresses have no validity on the Internet; this means that data packets with this sender type or recipient address cannot be transported on the Internet. However, they can be used in local networks without restriction. The advantage of this is that if data from a local network configured in this way comes in contact with the Internet, none of the data on the computers in the local network can leak out or be accessed externally.

Net mask

Enter the subnet mask. Configuring subnetworks makes it possible to connect many totally different networks located in totally different areas because each subnetwork receives its own address and can therefore be addressed by the router. A subnetwork is created when the IP address is linked with a subnet mask. If a bit in the subnet mask is set, the corresponding bit in the IP address is considered a part of the network address. If a bit is not set in the subnet mask, the corresponding bit in the IP address

is used as a part of the PC address. The value of the subnet mask, as with IP addresses, is often given in decimal form (for example, 255.255.255.0 for IPv4 addresses).

Gateway

Enter the gateway. A gateway is a PC or router that acts as an intermediary between two different networks. The Internet service provider is the gateway for direct Internet dial-up connections. If you use a router, this is the gateway in a local network.

DNS server 1

Enter the DNS server. DNS (Domain Name Service) is needed to translate Internet addresses. The name of a computer on the Internet (for example, **www.auerswald.de**) is assigned to the corresponding IP address. This service is provided by DNS servers at the various Internet service providers or by upper domain servers.

DNS server 2 (optional)

☑ ☐ **VLAN settings**

☐ **VLAN internal port**, ☐ **VLAN gateway**:

- All data packets are forwarded, unchanged, between the ports (POE port, PC port and internal port).

☑ **VLAN internal port**, ☐ **VLAN gateway**:

- The internal port is placed in its own VLAN. The associated data packets are protected and transported in this VLAN (tagged with the VLAN ID of the internal port and prioritised with the VLAN priority of the internal port).
- All data packets are forwarded, unchanged, between the POE port and the PC port.
- You can connect a non-VLAN-enabled device, such as a PC, to the telephone's external port (PC port) without adding this device to a VLAN. You can also connect additional telephones to the external port (daisy chain) and use your own VLANs in the telephones.

☑ **VLAN internal port**, ☑ **VLAN gateway**:

- The internal port is placed in its own VLAN. The associated data packets are protected and transported in this VLAN (tagged with the VLAN ID of the internal port and prioritised with the VLAN priority of the internal port).
- The external port is also placed in its own VLAN. The associated data packets are tagged with the VLAN ID of the external port and prioritised with the VLAN priority of the external port.
- You can connect a non-VLAN-enabled device, such as a PC, to the telephone's external port (PC LAN port) and add this device in the external port VLAN.

☑ ☐ VLAN internal port

A VLAN (Virtual Local Area Network) is a logical network within a physical network. You can use a VLAN to operate several logical networks in the same physical network, to represent a company's departments within the network in a logical way or to separate traffic streams on the network, e.g. to separate PC data from voice data and give them different priorities.

To run a VLAN, you require VLAN-enabled network components that comply with the IEEE 802.1Q standard.

Requirements:

- VLAN provided on the network
- Set up network interface type VLAN (can be configured in the telephone under **> Settings > Providers & PBXs > Name of provider/PBX > Network interface type**)

☑ VLAN is enabled and additional entries must be made:

VLAN ID internal port (1...4094)

Enter the internal VLAN ID port.

VLAN priority internal port (0...7)

Enter VLAN priority of the internal port (**0** (lowest priority) to **7** (highest priority).

☑ ☐ **VLAN gateway**

Requirements:

- Enabled VLAN

Important: Assign different values to the VLAN-ID internal port and the VLAN-ID external port.

☑ The external port is placed in a separate VLAN.

☐ All data packages are forwarded to the external port.

The following entries must also be made:

VLAN ID external port (1...4094)

Enter VLAN IP for the external port.

Proxy

☑ ☐ **Proxy**

A proxy server acts as the interface to the Internet or between two networks. For example, it receives queries from a computer in an intranet.

☑ The proxy, instead of the computer, connects to the Internet to forward queries and return the responses. If necessary, the responses are filtered. To achieve this, the HTTP proxy uses the Internet's HTTP protocol.

The following entries must also be made:

Proxy port (1...65535)

Note: You find an overview of the PBX ports in the Configuration Manager of the PBX under **Overviews > Ports**.

Proxy hostname

Bypass proxy for

Enter the address of the local host for which the proxy is to be bypassed. The following entries are possible (several entries are to be separated by a comma):

- IP address within the range from 0 to 255 (Example: 123.123.123.123)
- Hostname

VoIP

☑ ☐ **Quality of service: DiffServ (Differentiated Services)**

DiffServ (Differentiated Services) ist a method that organizes IP data packets for transmission or forwarding in service classes. A higher service class means that the data packets are treated preferentially (e. g. VoIP voice packets for a better voice quality).

Requirements:

- Available and enabled support for DiffServ in all active network components (e. g. hubs, switches, router, etc)

Note: DiffServ is not supported by all VoIP providers. When used in a standard VoIP account, these settings may not be applied in some situations.

☑ The activation of DiffServ requires a reboot of the telephone. For VoIP calls, the service class in accordance with RFC 4595 is set.

RTP port

The RTP port is a port on the local system and is used as outgoing port for RTP transfers.

Lowest RTP port (1024...65471)

Enter RTP port (port number).

RTP port range (64...256)

Enter RTP port range.

Note: You find an overview of the PBX ports in the Configuration Manager of the PBX under **Overviews > Ports**.

OpenVPN

☑ ☐ **OpenVPN**

OpenVPN allows the configuration of a virtual private network (VPN).

Requirements:

- ConfiguredVPN network interface type (Settings > Provider & PBXs > Settings Configuration Manager Providers and PBXs)
- OpenVPN configuration file saved into the telephone
- OpenVPN certificate saved into the telephone

☑ The telephone uses OpenVPN libraries to establish a VPN over a TLS/SSL-encrypted connection.

Important: When you restart the telephone, the time will be reset unless it is updated automatically by a time server (NTP server). As data packets are given a time stamp when they are encrypted, it is important that the current time is configured on the telephone (see chapter **Settings > Date and Time**). A connection cannot be established via a VPN if a data packet time stamp is different from the time on the telephone.

OpenVPN log

View or open the OpenVPN log file. In the OpenVPN log file, all actions are logged which are performed when OpenVPN is enabled.

OpenVPN certificate deleting

Requirements:

- OpenVPN certificate saved in the Configuration Manager

Delete the existing OpenVPN certificate.

VPN settings

VPN

The telephone uses PPTP to establish a remote access connection.

The telephone uses IPsec to transport IP packages cryptographically secured via public networks.

Requirements:

- Screen lock enabled (page **Settings > Security > Screen lock**)
- Network interface type VPN enabled (page **Settings > Providers & PBXs > Network interface type**)

Important:

When you restart the telephone, the time will be reset unless it is updated automatically by a time server (NTP server). As data packets are given a time stamp when they are encrypted, it is important that the current time is set on the telephone (see chapter Settings > Date and Time). A connection cannot be established via a VPN if a data packet time stamp is different from the time on the telephone.

If you enable IPsec VPN or PPTP VPN, devices in the local network can no longer be reached. Furthermore, the device on which IPsec is enabled, can no longer be reached by other devices in the local network.

The encryption of PPTP is considered as insecure.

Add new IPsec VPN or PPTP VPN profile. The following entries must also be made:

Name

Enter profile name.

Type

Options for IPsec VPN:

- L2TP/IPsec PSK
- L2TP/IPsec RSA
- IPsec Xauth PSK
- IPsec Xauth RSA
- IPsec Hybrid RSA

Options for PPTP VPN:

- PPTP

Server address

Enter server address.

For some VPN types additional settings must be made.

Connecting VPN profile to server

A VPN (Virtual Private Network) is a private, closed network within an open network, such as the Internet. Data packets are encrypted, and VPN subscribers can be required to authenticate themselves, to ensure that the data packets are transferred between subscribers without being vulnerable to eavesdropping or manipulation.

The telephone supports three different VPN clients:

Tap on the profile name to establish a connection to the corresponding server. The following entries must also be made:

Username

Enter username.

Password

Enter password.

Disconneting VPN profile from server

Requirements:

- Existing connection to the correspondign server

Tap on the profile name to disconnect the server.

Deleting/editing VPN profile

Touch and hold the profile name to edit or delete the profile.

BLACKLIST AND WHITELIST SETTINGS

As soon as the phone is connected to the Internet, there is a risk of attacks via the Internet, for example DoS (Denial of Service) attacks, or attacks aimed at the internal SIP server.

To prevent this, you can enable the blacklist.

☑ ☐ Blacklist and whitelist

If traffic from a particular IP address is judged as being too high - and therefore probably malicious- this IP address is blocked. This means accesses from this IP address to the telephone are blocked (block time). Initially this block lasts for five minutes. A note appears in the status line on the home screen. During the block time the telephone continues to monitor traffic from this IP address. If traffic from this IP address to the PBX continues to be too high, the single block time is extended (block time restarts).

Important: Switching off the IP blacklist and whitelist or restarting the telephone deletes all the entries in the locking list.

☑ Network-based access attempts, such as the number of data packets per second or SIP authentication failures are monitored and evaluated.

IP whitelist > ADD TO ENTRY LIST

Important:

To set the IP whitelist, contact the system administrator.

Only release as many IP address ranges as necessary. The larger the released address range, the greater the danger of attacks.

IP address

The telephone supports the IPv4 Internet protocol, with a prefix length of 0 to 32 bits.

Network prefix (CIDR)

The network prefix provides the net mask for the IP address and specifies how many IP addresses are released in a network range. The larger the network prefix, the fewer the number of IP addresses that are released.

Example

Example:

IP address	**192.168.0.240**
Network prefix	**Released address range**
8	192.x.x.x
16	192.168.x.x
24	192.168.0.x
32	192.168.0.240 (only the explicitly entered IP address is released.)

IP blacklist

IP whitelist

Requirements:

- Enabled blacklist and whitelist settings

Touch and hold the IP address to delete IP addresses that are saved under IP black or IP whitelist.

Settings Bluetooth (only COMfortel 3600 IP)

Proceed as follows:

- Using the Configuration Manager (page **Settings > Network > Bluetooth**)
- Using the telephone (page **> Settings > Network > Bluetooth**)

Requirements:

- Bluetooth dongle plugged into the exclusive USB port (see chapter Indroduction to the telephone > Device overview > Overview of connections).

Note: In sensitive areas, in which the use of Bluetooth is generally prohibited, you can also remove the Bluetooth dongle from the telephone, in addition to switching Bluetooth off.

Using the Configuration Manager

☑ ☐ **Bluetooth**

☑ Bluetooth is enabled.

Using the Telephone

Bluetooth ON OFF

ON Bluetooth is enabled.

Function Key for Bluetooth

Press the key to switch Bluetooth on or off or to change it.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key:

green	Bluetooth is enabled.
off	Bluetooth is disabled.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Bluetooth**
- Using the telephone by selecting **Bluetooth**

Note: For further information about the general procedures when assigning function keys, see Function Keys.

Sound

The telephone uses sounds to tell you about phone calls, notifications, alarms and selections on the display. You can select the sounds you want, set their volume and also mute specific sounds as required. You can also add other, additional ringtones to the telephone.

Call differentiation

You can use different ringtones to differentiate the incoming calls.

These ringtones can be assigned to the different call types, group numbers, account phone numbers and callers. You can make these assignments depending on which information is the most important for you. Make the settings as follows.

- If you want to use different ringtones to identify individual call types or the group numbers selected by the caller, make the settings described in this section, using the telephone or the Configuration Manager.
- If you want to use different ring tones to identify the account phone numbers selected by the caller, assign a ringtone to these account phone numbers (see Settings> Accounts> Entering Telephone Numbers).
- If you want to use different ringtones to identify different callers, assign a ringtone to the relevant contacts under **> People > Name of contact > Menu key > Options**. However, this function only works if the caller's number is transferred).

As external, internal and door calls can be affected by more than one of these settings, they are signalled in a predefined sequence (list of priorities). The caller is always identified first. If no specific sound has been assigned to the caller, the ringtone for the call type is used.

Priority List for External Calls

1. The ringtone specified in the telephone book, if the caller can be identified as a telephone book entry
2. The ringtone defined for a specific account phone number, if the phone number was dialled by the caller
3. The ringtone defined for a particular group number, if the group is called
4. The ringtone defined for the group call type, if an undefined group is called
5. The ringtone defined for the external anonymous calls call type
6. The ringtone defined for the external calls call type

Priority List for Internal Calls

1. The ringtone specified in the telephone book, if the caller can be identified as a telephone book entry
2. The ringtone defined for a specific account phone number, if the phone number was dialled by the caller
3. The ringtone defined for a particular group number, if the group is called
4. The ringtone defined for the group call type, if an undefined group is called
5. The ringtone defined for the external calls call type

Priority List for Door Calls

1. The ringtone specified in the telephone book, if the door can be identified as a telephone book entry
2. The ringtone defined for a particular group number, if the group is called
3. The ringtone defined for the group call type, if an undefined group is called
4. The ringtone defined for the door call call type

Proceed as follows for configuration:

- Configuring and setting sounds and message tones.
  - Using the Configuration Manager (page **Settings > Device > Sound**)
  - Using the telephonme (page **> Settings > Device > Sound**)
- Enabling/Disabling the ring tone.
  - Using the telephone (page **> Functions > Ringtone**)
- Setting the function key for the ringtone.
  - Using the Configuration Manager (page **> Function keys**)
  - Using the telephone (page **> Function keys**)

Settings Configuration Manager Sounds

Proceed as follows:

- Using the Configuration Manager (page **Settings > Device > Sound**)

Volumes

Volumes

Requirements:

- Silent mode disabled

Move the regulator to individually set the phone ringtone, media, alarm and the gain headset microphone.

Settings for sound

Default ringtone

The default ringtone applies to all possible call types insofar that you have not made any other call type-specific settings.

Note:

You can add additional ringtones to the telephone. To do this, use the file manager (see chapter Settings > File Manager) and save the ringtone file (*.wav, *.mp3) in the ‘Ringtones‘ folder. For a COMfortel 3600 IP, you can directly place the file on the internal storage into the already created ‘Ringtones‘ folder. For a COMfortel 1400 IP and COMfortel 2600 IP, you must use an SD card. To do this, create a ‘Ringtones‘ folder and place it into the superordinated ‘LOST.DIR‘ folder.

For a ringtone that has been added, the file title, if existing, is displayed. Otherwise, the file name is displayed.

Select the default ringtone.

☑ ☐ **Headset ringer**

☑ The ringing is played at the headset.

☑ ☐ **Silence on user proximity** (only COMfortel 3600 IP)

☑ The ring signal will be switched off during call if a gesture (e. g. waving) is made in front of the proximity sensor.

☐ The ringer goes on, even on user proximity.

Ringtone by call type

Ringtone by call type

Select the ringtone for the corresponding call type. Options:

- Unknown calls
- Internal calls
- Internal priority calls
- External calls
- Group calls (calls intended for a group)
- Alarm calls
- InterCom
- Wake-up calls
- Door calls
- User-defined call types (up to 5 different call types)

Settings for special groups

Settings for special groups > Configure

A specific ringtone can be assigned to each group.

Group number

Enter the corresponding group number.

Phone ringtone

Select the group ringtone.

Settings Telephone Sounds

Proceed as follows:

- Using the telephone
  Using the telephone (page **> Settings > Device > Sounds > (More)**)

Sound

Volumes

Requirements:

- Silent mode disabled

Move the regulator to individually set the volume for the media, ringtone and alaram.

Default ringtone

The default ringtone applies to all possible call types insofar that you have not made any other call type-specific settings.

Note:

You can add additional ringtones to the telephone. To do this, use the file manager (see chapter Settings > File Manager) and save the ringtone file (*.wav, *.mp3) in the ‘Ringtones‘ folder. For a COMfortel 3600 IP, you can directly place the file on the internal storage into the already created ‘Ringtones‘ folder. For a COMfortel 1400 IP and COMfortel 2600 IP, you must use an SD card. To do this, create a ‘Ringtones‘ folder and place it into the superordinated ‘LOST.DIR‘ folder.

For a ringtone that has been added, the file title, if existing, is displayed. Otherwise, the file name is displayed.

Select the default ringtone.

Default notification

The default notification tone applies to all notifications insofar you have not made any other notification-specific settings.

Requirements:

- Silent mode disabled

Select the default message tone.

Touch sounds ☑ ☐

☑ The touching of buttons, symbols etc. on the display is signalled by a tone.

More

☑ ☐ **Headset ringer**

☑ The ringing is played at the headset.

Gain headset microphone

Move the regulator to set the gain headset microphone to adjust the volume of your voice to suit your call partner.

Maximum gain handset micro

Move the regulator to set the maximum gain handset micro.

Ringtone by call type

Select the ringtone for the corresponding call type. Options:

- Unknown calls
- Internal calls
- Internal priority calls
- External calls
- Group calls (calls intended for a group)
- Alarm calls
- InterCom
- Wake-up calls
- Door calls
- User-defined call types (up to 5 different call types)

Settings for special groups > Configure

A specific ringtone can be assigned to each group.

Group number

Enter the corresponding group number.

Phone ringtone

Select the group ringtone.

☑ ☐ **Silence on user proximity** (only COMfortel 3600 IP)

☑ The ring signal will be switched off during call if a gesture (e. g. waving) is made in front of the proximity sensor.

☐ The ringer goes on, even on user proximity.

Waiting field tone

If a caller is in the waiting field, it can be set if a tone shall be played in the telephone in a regular time interval to signal that the caller is still in the line.

Select the waiting field tone or no tone at all.

Settings ringtone

Proceed as follows:

- Using the telephone (page **> Functions > Ringtone**)

einschalten Calls will be signalled acoustically by a ringtone. This function differs from the PBX function do-not-disturb insofar that calls are still admitted but they will not be signalled acoustically but visually.

Function Key for the Ringtone

Press the key to switch the ringtone on or off or to change it.

Press the key during an incoming call to switch the ringtone on or off for this call or toggle.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key:

off	The ringtone is enabled.
red	The ringtone is disabled.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Ringtone**
- Using the telephone by selecting **Ringtone**

Note: For further information about the general procedures when assigning function keys, see Function Keys.

Display

You can adjust the telephone to the needs of the user by setting the display. To that belongs the settings for the display brightness, the idle state and power save mode, the LED settings and the wallpaper.

Procced as follows for configuration:

- Setting the display.
  - Using the Configuration Manager (page **Settings > Device > Display**)
  - Using the telephone (page **> Settings > Device > Display**)

Settings Configuration Manager Display

Proceed as follows:

- Using the Configuration Manager (page **Settings > Device > Display**)

Brightness

☑ ☐ **Display off**

☑ Display will be switched off in power save mode.

☐ Display will be dimmed in power save modede.

☑ ☐ **Automatic brightness** (COMfortel 3600 IP)

☐ The automatic brightness is disabled. A regulator for setting the display brightness manually pops up.

Brightness (COMfortel 1400 IP and 2600 IP)

Move the regulator to the left or right to reduce or raise the display brightness.

LED settings

Message LED

Flashing and continous on: Indicates new entries, or entries that have already been viewed.

Flashing only: Indicates new entries.

Off: LED is always switched off.

☑ ☐ **Signalling of fax boxes**

If you find the LED signals of the fax boxes disruptive or annoying, they can be switched off separately.

☑ New fax entries will be signalled.

Display LED (only COMfortel 1400 IP and 3600 IP)

The different telephone states can be set (e. g. missed calls, new messages, etc.). Configure which telephone state is to be signalled or if the signalling shall be switched off completely.

Show alerting and calls: Indicates the status of the call.

Show alerting, calls and headset activation: Indicates the status of the call and the headset activation (only COMfortel 3600 IP).

Show alerting, calls and new messages: Indicates the status of the call and new messages.

Off: LED is always switched off.

☑ ☐ **Registration status display for VoIP subscribers**

☑ If not registered on the PBX, the speed dialling key signals unregistered VoIP subscribers in yellow.

☐ No signalling of the registration status.

Idle state and Power Saving Mode

Sleep

The selected time indicates after how many seconds/minutes without action the telephone switches into the idle state. Then, the display no longer reacts on touch. If **not automatically** is selected, the telephone will not automatically be set into the idle state.

Configuration-dependent idle state

Configuration ID

The telephone changes into the idle state if the PBX switches over into a specific configuration (e. g. night configuration).

Requirements:

- Configured configuration in the PBX (see Advanced Information of the PBX)
- Enabled **Configuration switchover** check box in the PBX

Enter the configuration ID of the configuration.

Note: To switch off the configuration-dependent idle state, delete the configuration ID in the **Configuration ID** entry filed and click **OK**.

Power save mode behaviour

The selected time indicates after how many minutes in the idle state the power save mode will be switched on. The background lighting will then be dimmed or switched off completely and the LEDs are inactive (exception: message LED for missed calls).

Settings Telephone Display

Proceed as folllows:

- Using the telephone (page **> Settings > Device > Display > (More)**)

Display

Brightness (COMfortel 3600 IP)

The display brightness will be set automatically.

The automatic display brightness is disabled and the display brightness must be set manually.

Brightness (COMfortel 1400 IP und 2600 IP)

By moving the regulator, the display brightness can be set.

Wallpaper

Live wallpapers are animated wallpapers that can be used instead of conventional wallpapers. You can download live wallpapers via apps or import them via data storage device. Alternatively, you can use a configured IP camera as live wallpaper. A remote wallpaper can be imported from a server into the phone by entering the URL.

Select the display wallpaper

: Select a wallpaper from the **Gallery**.

: Select an image from the **Wallpapers**.

: Select an image from the **Live wallpapers**.

- Select a live wallpaper that was saved onto the phone via app or storage medium.
- : Select a live wallpaper from a configured IP camera.
- : Select the **Remote Wallpaper** by entering the remote wallpaper URL (**Live wallpapers > Remote Wallpaper > Settings...**)

Follow the instuctions below to provision a Remote Wallpaper:

- The image file must not exceed 256 kB.
- The following section must be added to the provisioning file:

  <wallpaper>

  <url>http://myserver.de/my/path/imagename.jpg</url>

  </wallpaper>
- For each phone type, own wall papers can be applied. To do this, the additional tag <HWTYP> must be used.

Note: Within the *.xml file, the two characters „**<**“ and „**>**“ must be replaced by „**<**“ or. „**>**“ (**<url>http://myserver.de/my/path/imagename<HWTYP>.jpg></url>**).

The tag will subsequently be replaced depending on the phone type CF1400IP, CF2600 IP or CF3600IP).

URL example for COMfortel 3600 IP: **http://myserver.de/my/path/imagenameCF3600IP.jpg**.

Sleep

The selected time indicates after how many seconds/minutes without action the telephone switches into the idle state. Then, the display no longer reacts on touch. If **not automatically** is selected, the telephone will not automatically be set into the idle state.

Sleep mode off

Requirements:

- If a screen lock is configured: Knowlegde of the screen lock password

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Notes: The idle state is switched off automatically if, for example, an incoming call is signalled, or if the alarm rings. If the screen lock is set, the idle state is enabled again immediately after the event.

Press any key on the telephone (exception: function keys) and if necessary enter the screen lock password.

Screen candy

Select the screen candy (e. g. clock or colours). For some screen candys, additional settings can be made under .

Font size

Select the font size (from small to huge).

More

Display profile (only COMfortel 1400 IP)

Select the display profile. The display profile can be configured to customise the viewing angle of the display to make it easier to read if the device is being used on a table or mounted on a wall.

☑ ☐ **Display off**

☑ Display will be switched off in power save mode.

☐ Display will be dimmed in power save modede.

Proximity sensor (only COMfortel 3600 IP)

The farther the regulator is set to the right, the higher is the sensitivity of the sensors. From which distance the proximity sensor start reacting can be seen when the star changes the colour.

Configuration-dependent idle state

Configuration ID

The telephone changes into the idle state if the PBX switches over into a specific configuration (e. g. night configuration).

Requirements:

- Configured configuration in the PBX (see Advanced Information of the PBX)
- Enabled **Configuration switchover** check box in the PBX

Enter the configuration ID of the configuration.

Note: To switch off the configuration-dependent idle state, delete the configuration ID in the **Configuration ID** entry filed and click **OK**.

◉ ○ **Message LED**

Flashing and continous on: Indicates new entries, or entries that have already been viewed.

Flashing only: Indicates new entries.

Off: LED is always switched off.

☑ ☐ **Signalling of fax boxes**

If you find the LED signals of the fax boxes disruptive or annoying, they can be switched off separately.

☑ New fax entries will be signalled.

◉ ○ **Display LED** (only COMfortel 1400 IP and 3600 IP)

The different telephone states can be set (e. g. missed calls, new messages, etc.). Configure which telephone state is to be signalled or if the signalling shall be switched off completely.

Show alerting and calls: Indicates the status of the call.

Show alerting, calls and headset activation: Indicates the status of the call and the headset activation (only COMfortel 3600 IP).

Show alerting, calls and new messages: Indicates the status of the call and new messages.

Off: LED is always switched off.

☑ ☐ **Registration status display for VoIP subscribers**

☑ If not registered on the PBX, the speed dialling key signals unregistered VoIP subscribers in yellow.

☐ No signalling of the registration status.

Touch calibration (only COMfortel 1400 IP and 2600 IP)

If the telephone reacts imprecise, it must be calibrated by touching the two crosses on the display.

Power save mode behaviour

The selected time indicates after how many minutes in the idle state the power save mode will be switched on. The background lighting will then be dimmed or switched off completely and the LEDs are inactive (exception: message LED for missed calls).

Function Key for the Idle State (Sleep)

If you press the key you switch the idle state on immediately.

Notes:

If the power save mode is enabled, it will be switched on together with the idle state (**> Settings > Device > Display > More > Power save mode behaviour**).

As the function key LEDs are switched off in power save mode, you cannot use them to tell you which status the functions currently have.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **Sleep**
- Using the telephone by selecting **Sleep**

Note:

The function can only be assigned to a programmable function key that has an LED (not on a touch function key).

For further information about the general procedures when assigning function keys, see Function Keys.

Apps, Running Services and Storage Use

You can manage applications and display details about the applications installed on your telephone and its active services, for example, memory use and the corresponding application modules. You can also stop faulty apps.

Proceed as follows for configuration:

- Managing Apps, running services and storage use:
  - Using the telephone (**Home screen >** *Menu* **> Manage Apps**)

Note: The telephone's operating system automatically manages the amount of memory being used by apps and services. We recommend that these options are only set for advanced users.

The App administration page opens. It has four tabs with lists of apps, services, and their associated components. In addition, you can see how much memory is being used by each particular app and services at the bottom of each tab.

Select the tab. Options:

- **Downloaded:** Downloaded apps (internal storage)
- **On storage medium:** Apps installed on the data storage device
- **Running:** Active oder buffered services running in the telephone‘s RAM
- **All:** All apps on the telephone

App name

Make the settings. Options:

- **Force stop:** Ends the running App
- **Uninstall:** Deletes the additionally installed app
- **Clear data:** Deletes the data used by the app (configuration settings, datasets, etc.)
- **Move to storage medium:** Moves the app onto the data storage device
- **Clear cache:** Deletes the data which was cached in the RAM bay the app
- **Clear defaults:** Returns the app to the default settings

---

Note: You can view more detailed information about an app under **Memory**, **Cache**, **Launch by default** and **Permissions**.

Name of running service

Depending on the service, you can make different settings which will stop the service or send a report.

Make the settings. Options:

- **Settings:** Service-specific settings
- **End:** Ends the active service
- **Report:** Sends an error report to the service provider

Note: You can view more detailed information about a service under **Services** and **Processes**.

Emergency numbers

You can configure emergency numbers as well in the PBX as in the telephone. Emergency numbers are those numbers that you configure as such (not only 110 or 112).

If a screen lock is configured, emergency and service numbers can be dialled and initiated without having to enter the PIN or password.

Configure the emergency number (max. 10) at best only then in the telephone if it is not system telephone on the PBX.

For the use as system telephone on the PBX, it is avisable to configure the emergency numbers only in the PBX. In this case, the PBX always recognizes an emergency number independently from the configured exchange line request.

Proceed as follows:

- Using the telephone (page **> Settings > COMfortel > More > Emergency numbers**)

Notes:

Telephone should not be system telephone on the PBX.

The emergency numbers you set up in the telephone are not synchronised with the PBX‘s telephone book.

Emergency number

Enter the emergency number.

Name of emergency number

Enter the emergency number name.

Account to use

Select the account.

Note: When selecting a phone number, any account assigned to that number will only be used if you dial a phone number using the **Contacts** app.

Location

Some apps and web pages need the location of the telephone (GPS co-ordinates) to enable them to execute location-related functions.

To use these functions, even without a GPS receiver, you can set the location in the telephone and allow the access to the location data.

Proceed as follows for configuration:

- Setting the location.
  - Using the Configuration Manager (page **Settings > COMfortel > More > My location**)
  - Using the telephone (page **> Settings > COMfortel > More > My location**)
- Switching access to the location on/off.
  - Using the telephone (page **> Settings > COMfortel > More > My location**)

Settings Configuration Manager Location

My location

Note: You can find out your exact location from the relevant Internet sites or with a GPS receiver or smart phone.

The following entries must be made:

Latitude

Enter the latitude.

Longitude

Enter the longitude.

Altitude

Enter the altitude.

Settings Telephone Location

Proceed as follows:

- Using the telephone (page **> Settings > COMfortel > More > My location**)

My location

Note: You can find out your exact location from the relevant Internet sites or with a GPS receiver or smart phone.

Access to my location ON OFF

ON The location information may be used by Apps that were given permission.

To set the location, the following entries must be made:

Latitude

Enter the latitude.

Longitude

Enter the longitude.

Altitude

Enter the altitude.

File Manager

The Configuration Manager can be used to transfer data, for example wallpapers or ringtones from the data storage device to a PC or in the other direction from a PC to a data storage device.

Proceed as follows:

- Using the Configuration Manager (page **Settings > COMfortel > File Manager**)

Requirements:

- Inserted data storage device

Managing Data in the File Manager

Create folder

A new folder will be created.

Delete folder

The selected folder will be deleted.

Rename folder

The selected folders can be renamed.

Upload file

The selected file will be saved on the data storage device.

Download file

The selected file will be saved on the PC.

Copy file

The selected file will be copied by entering a file name.

Note: When copying a file, you must enter the file format behind the file name.

Delete file

The selected file will be deleted

Rename file

The selected file can be renamed.

Zip

The selected folder or file will be zipped. When zipping a file, you must also enter a file name.

Unzip

The selected *.zip folder or *.zip will be unzipped.

IP Camera

The telephone supports the connection of IP cameras, for example for monitoring and controlling door stations.

Note: A fee is charged for activating the IP camera at the Auerswald/ FONtevo online shop (see chapter Service and Maintenance > Extending the Telephone section) (Exception: COMfortel 3600 IP).

By sending DTMF signals you can open a door and switch on the accompanying stairwell light (connection between the IP camera and a door station in the telephone book).

Proceed as follows for configuration:

- Creating and configuring an IP camera.
  - Using the Configuration Manager (page **Settings > COMfortel > IP cameras**)
  - Using the Telephone (page **> Settings > COMfortel > More > IP Camera > IP camera name**)
- Linking an IP camera with a contact.
  - Using the telephone (page **> People > contact name > Menu key > Options > IP camera**)
- LInking an IP camera with DTMF signals for opening the door or switching on the light.
  - Using the telephone (page **> People > contact name > Menu key > Options > DTMF signal open door/light**)
- Configuring a function key for an IP camera.
  - Using the Configuration Manager (page **> Function keys**)

– Using the telephone (page **> Function keys**)

Management Configuration Manager IP Camera

Proceed as follows:

- Using the Configuration Manager (page **Settings > COMfortel > IP cameras**)

+ New

important: The telephone only supports IP cameras which send single images in *.jpg file format directly via a static IP address/URL. It does not support IP cameras that are embedded in web pages, dynamic IP addresses/URLs (e.g. via JavaScript) and streaming formats.

A new camera will be created. You find further information about the settings under Settings > IP cameras > Settings Telephone IP Cameras.

Delete

important: You can only restore deleted IP cameras if you have backed up their data to the data storage device in the telephone.

The marked IP camera will be deleted.

Management Telephone IP Camera

Proceed as follows:

- Using the Telephone (page **> Settings > COMfortel > More > IP cameras >** Menu)

Configure IP camera

important: The telephone only supports IP cameras which send single images in *.jpg file format directly via a static IP address/URL. It does not support IP cameras that are embedded in web pages, dynamic IP addresses/URLs (e.g. via JavaScript) and streaming formats.

A new camera will be created. You find further information about the settings under Settings > IP cameras > Settings Telephone IP Cameras.

Delete all IP cameras

important: You can only restore deleted IP cameras if you have backed up their data to the data storage device in the telephone.

All IP cameras will be deleted.

Note: Touch and hold an IP camera name, to individually delete or edit the IP camera.

Settings Configuration Manager IP Camera

Proceed as follows:

- Using the Configuration Manager (page **Settings > COMfortel > IP cameras > Configure**)

IP camera settings

Name

Enter the IP camera name.

IP/URL

Enter the IP cameras IP address or URL.

Image scale in % (10...400)

Enter the image scale to enlarge or minimize the image.

Image frequency

The image frequency defines the number of the pictures per second/minute that can be sent by the IP camera to the telephone.

Notes:

If the **only one image** image frequency is selected, only one picture is sent and the display is not updated.

The value of the images actually transferred depends on which IP camera type is used.

Select the image frequency.

☑ ☐ **Full screen**

Note: In the telephony app you tap to switch on full screen mode for the duration of the call or tap on to switch off full screen mode.

☑ The image of the IP camera in the telephony app will be displayed in full screen mode during an imcoming or outgoing call.

☐ The image of the IP camera will be displayed significantly minimized.

☑ ☐ **Centre image**

☑ The displayed image section is being centred.

☐ The image section is being displayed starting from the upper left-hand corner of the camera picture.

☑ ☐ **Increased security**

☑ The image of the IP camera will only be displayed in the telephony app during an incoming call.

☐ The image of the IP camera will be displayed in the telephony app and in the IP camera app.

☑ ☐ **Snapshot**

Note: If a snapshot is to be made during a call, it is necessary that the corresponding contact is linked with an IP camera (see chapter Settings > Contacts and phone number lists> Configuring a Link Between an IP Camera and a Contact).

☑ The telephone creates a snapshot in several situations and saves it into the gallery. A snapshot will be made if you:

- open an IP camera
- press the defined function key for the IP camera
- are called by a contact that is linked with an IP camera

User

Enter the user. You find the user in the Advanced Information of the IP camera.

Password

Enter IP camera password. You find the password in the Advanced Information of the IP camera.

IP camera Motion Detection

☑ ☐ **Motion Detection**

Note: You must make camera-specific settings to enable motion detection on the camera (see Advanced Information for the IP camera).

☑ The IP camera app will be switched on automatically. Additional settings must be made:

TCP port (for all IP cameras)

Enter the corresponding Port number (port).

TCP message

Enter the TCP message (TCP trigger) for the configured IP camera.

Attention tone

Select the attention tone or no attention tone.

IP camera control

IP camera control

You can use the telephone's directional pad to control tiltable and zoomable PTZ (pan-tilt-zoom) cameras (left, right, up, down, zoom in, zoom out, OK key). The OK key pans the IP camera in a predefined position. URL entry in the entry filed.

Note:

You must make a number of camera-specific settings before you can use your telephone to control the IP (see PTZ interface documentation for the IP camera).

You find the URL in the Advanced Information of the IP camera.

Settings Telephone IP Camera

Proceed as follows:

- Using the Configuration Manager (page **> Settings > COMfortel > More > IP cameras**)

IP camera settings

Name

Enter the IP camera name.

IP/URL

Enter the IP cameras IP address or URL.

Image scale in % (10...400)

Enter the image scale to enlarge or minimize the image.

Image frequency

The image frequency defines the number of the pictures per second/minute that can be sent by the IP camera to the telephone.

Notes:

If the **only one image** image frequency is selected, only one picture is sent and the display is not updated.

The value of the images actually transferred depends on which IP camera type is used.

Select the image frequency.

☑ ☐ **Full screen**

Note: In the telephony app you tap to switch on full screen mode for the duration of the call or tap on to switch off full screen mode.

☑ The image of the IP camera in the telephony app will be displayed in full screen mode during an imcoming or outgoing call.

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☑ ☐ **Centre image**

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☑ The image of the IP camera will only be displayed in the telephony app during an incoming call.

☐ The image of the IP camera will be displayed in the telephony app and in the IP camera app.

☑ ☐ **Snapshot**

Note: If a snapshot is to be made during a call, it is necessary that the corresponding contact is linked with an IP camera (see chapter Settings > Contacts and phone number lists> Configuring a Link Between an IP Camera and a Contact).

☑ The telephone creates a snapshot in several situations and saves it into the gallery. A snapshot will be made if you:

- open an IP camera
- press the defined function key for the IP camera
- are called by a contact that is linked with an IP camera

ACCESS DATA

User

Enter the user. You find the user in the Advanced Information of the IP camera.

Password

Enter IP camera password. You find the password in the Advanced Information of the IP camera.

IP camera control

IP camera control

You can use the telephone's directional pad to control tiltable and zoomable PTZ (pan-tilt-zoom) cameras (left, right, up, down, zoom in, zoom out, OK key). The OK key pans the IP camera in a predefined position. URL entry in the entry filed.

Note:

You must make a number of camera-specific settings before you can use your telephone to control the IP (see PTZ interface documentation for the IP camera).

You find the URL in the Advanced Information of the IP camera.

Motion Detection

☑ ☐ **Motion Detection**

Note: You must make camera-specific settings to enable motion detection on the camera (see Advanced Information for the IP camera).

☑ The IP camera app will be switched on automatically. Additional settings must be made:

TCP port (for all IP cameras) ☐

Enter the corresponding Port number (port).

TCP message ☐

Enter the TCP message (TCP trigger) for the configured IP camera.

Attention tone ☐

Select the attention tone or no attention tone.

Function Key for an IP Camera

Press the key to start an app to display the IP camera.

In addition, when functions are assigned on the first key level, the status of the function is indicated by the corresponding LED.

LED signalling on the key:

green	The IP camera app is switched on.
off	The IP camera app is switched off.

Proceed as follows by assigning the function key:

- Using the Configuration Manager by selecting **IP camera**
- Using the telephone by selecting **IP camera**

Notes:

For further information about the general procedures when assigning function keys, see Function Keys.

Additional settings for this function key are described in the following.

IP camera

Selection of the IP camera

Permissions

You can protect the telephone against unauthorised use by configuring permissions for making settings and using functions.

The telephone can be accessed on three authorisation levels:

- **Administrator:** The function is only available to administrators.
- **Sub-administrator:** The function is available to sub-administrators and administrators
- **None:** No lock, the function is available to users, sub-administrators and administrators.

Important: The permission settings are only accessible if you are logged in as administrator. If no sub-administrator or administrator is configured on the telephone, users can make all settings and use all functions.

When the telephone is operated on the PBX, the passwords for administrator and sub-administrator are preset by the PBX. Manual settings will be overwritten by the PBX.

Requirements:

- If necessary, change permission level (**> Settings >** Menu **> Change permission level**)

Proceed as follows for configuration:

- Setting permissions for settings.
  - Using the Configuration Manager (page **Settings > COMfortel > Permissions > Permissions for settings**)

  - Using the telephone (page **> Settings > COMfortel > More > Permissions for settings**)

- Setting permissions for functions.
  - Using the Configuration Manager (page **Settings > COMfortel > Permissions > Permissions for functions**)
  - Using the telephone (page **> Settings > COMfortel > More > Permissions for functions**)

Settings Configuration Manager Permissions

Proceed as follows:

- Using the Configuration Manager (page **Settings > COMfortel > Permissions**)

Permissions for settings

Permissions

The telephone can be protected against unauthorised use by configuring permissions for making settings and using functions

Important:

The permission settings are only accessible if you are logged in? as administrator. If no sub-administrator or administrator is configured on the? telephone, users can make all settings and use all functions.

When the telephone is operated on the PBX, the passwords for administrator and sub-administrator are preset by the PBX. Manual settings will be overwritten by the PBX.

Select the permission level (administrator, sub-administrator, user) for the following settings:

Bluetooth

Network

Accounts, Providers & PBXs

Apps

Security

Sync

Update & provisioning

Date & time

IP camera

Backup & reset

E-mail

Permissions for functions

Permissions

The following functions can be locked against unauthorised access. For this, the permission levels administrator, sub-administrator and user are available. The displaying of locked functions in the selection list requires a login as administrator (Menu > Change permission level).

Exchange/lines

Availability

Call fwd.: MSN/DDI

Boss/secretary

Groups

InterCom

Door/relay

Configurations

Voice mailbox

Answering machine

Settings Telephone Permissions

Proceed as follows:

- Using the telephone (page **Settings > COMfortel > More > Permissions for settings / Permissions for functions**)

Permissions for settings

Permissions

The telephone can be protected against unauthorised use by configuring permissions for making settings and using functions

Important:

The permission settings are only accessible if you are logged in? as administrator. If no sub-administrator or administrator is configured on the? telephone, users can make all settings and use all functions.

When the telephone is operated on the PBX, the passwords for administrator and sub-administrator are preset by the PBX. Manual settings will be overwritten by the PBX.

Select the permission level (administrator, sub-administrator, user) for the following settings:

Bluetooth

Network

Accounts, Providers & PBXs

Apps

Security

Sync

Update & provisioning

Date & time

IP camera

Backup & reset

E-mail

Permissions for functions

Permissions

The following functions can be locked against unauthorised access. For this, the permission levels administrator, sub-administrator and user are available. The displaying of locked functions in the selection list requires a login as administrator (Menu > Change permission level).

Exchange/lines

Availability

Call fwd.: MSN/DDI

Boss/secretary

Groups

InterCom

Door/relay

Configurations

Voice mailbox

Answering machine

Function Keys

The functions auto-dial for speed dial key, double-click for shift and automatic pick-up must be switched on or off at a central location.

Proceed as follows for configuration:

- Switching auto-dial for speed dial key, double-click for shift and automatic pick-up on/off
  - Using the Configuration Manager (page **Settings > COMfortel > Function keys**)
  - Using the telephone (page **> Settings > COMfortel > More > Function keys**)

Settings Configuration Manager Function Keys

Proceed as follows:

- Using the Configuration Manager (page **Settings > COMfortel > Function keys**)

Function Keys

☑ ☐ **Auto-dial for speed dial key**

☑ If you press a speed dialling key while the telephone is in the idle state, it automatically picks up a call (when headset is in use) or switches the telephone to hands-free operation.

☑ ☐ **Double-click for shift**

The programmable function keys can each be defined twice (on two levels). You can configure how to access the second level of the function keys (Shift). Using the Shift key to access the second set of functions ("2nd level") is always enabled. If you want to use this method, you must assign the Level 2 function to one of your function keys. The "Double-click for shift" (300 ms) method can be disabled if it is not required.

☑ Double-click is active.

☐ Double-click is off.

☑ ☐ **Automatic Pick-up**

Automatic pick-up acts via a speed dialling key and a pick-up key with defined destination.

☑ The connection will be established instantly after pressing the key

☐ The caller will be displayed initially.

Settings Telephone Function Keys

Proceed as follows:

- Using the telephone (page **> Settings > COMfortel > More > Function keys**)

Function Keys

☑ ☐ **Auto-dial for speed dial key**

☑ If you press a speed dialling key while the telephone is in the idle state, it automatically picks up a call (when headset is in use) or switches the telephone to hands-free operation.

☑ ☐ **Double-click for shift**

The programmable function keys can each be defined twice (on two levels). You can configure how to access the second level of the function keys (Shift). Using the Shift key to access the second set of functions ("2nd level") is always enabled. If you want to use this method, you must assign the Level 2 function to one of your function keys. The "Double-click for shift" (300 ms) method can be disabled if it is not required.

☑ Double-click is active.

☐ Double-click is off.

☑ ☐ **Automatic Pick-up**

Automatic pick-up acts via a speed dialling key and a pick-up key with defined destination.

☑ The connection will be established instantly after pressing the key

☐ The caller will be displayed initially.

Security

The security settings enable you to set the call logging and the screen lock. You can perform different settings for managing the device and the credentials storage. In addition, you can permit the installation of apps of unknown origin on your telephone.

Proceed as follows for configuration:

- Configure security settings.
  - Using the Configuration Manager (page **Settings > Personal > Security**)
  - Using the telephone (page **> Settings > Personal > Security**)

Settings Configuration Manager Security

Proceed as follows:

- Using the Configuration Manager (page **Settings > Personal > Security**)

Apps

Installation of apps from unknown sources

The telephone can allow the installation of apps from unknown sources (e. g. App Shop, websites, e-mails, etc.)

Caution: Apps and files downloaded from the Internet can contain viruses which can damage your telephone.

- To protect your telephone and your personal data, we strongly recommend you only download apps and files from trustworthy sources.

☑ ☐ **Unknown sources**

Important: If you install additional apps, the telephone's functionality may be affected, including loss of use. When the Auerswald service team or specialised dealer checks the telephone, it is reset to its factory settings. This process removes any previously installed apps and data, so these must then be reinstalled separately.

Note: Click **> Settings > Device > Apps > app name** to check, which of your telephone's functions and which personal data an app can access.

☑ The installation of apps from unknown sources is alllowed.

Settings Telephone Security

Proceed as follows:

- Using the Telephone (page **> Settings > Personal > Security**)

SCREEN SECURITY

No screen lock

Disables the screen lock.

Screen lock

Notes:

If the screen lock has been enabled, it is switched on together with the idle state (**Apps > Settings > Device > Display**).

After the screen lock has been switched on, you can still receive incoming calls and initiate emergency calls (only manual dialling of entered emergency numbers).

Screen lock with own PIN : Freely selectable PIN consisting of at least 4 digits. Enter numeric PIN to disable the screen lock.

Screen lock with own password : Freely selectable password consisting of at least 4 characters. Enter own password to disable the screen lock.

Screen lock with PBX user password : Enter PBX user password to disable the screen lock.

Automatic screen lock

Requirements:

- Disabled screen lock

◉ The selected time specifies after how many seconds/minutes in idle state the screen lock is switched on (instantly with switching on the idle state or after 5 seconds to 30 minutes).

PASSWORDS

Make passwords visible ☑ ☐

☑ The password entries are facilitated as they are visible.

DEVICE ADMINISTRATION

Device administrators ☑ ☐

Device administrators are apps to which you have given this authorisation, e.g. e-mail and calendar apps. Normally, the authorisation is demanded when an account is configured for the app, i.e., when the app must configure server-specific security directives on the telephone.

Notes:

For information about the device administrators contact your system administrator.

If authorisation is disabled, some functions of the account within the corresponding app will normally be lost, e. g. the option to synchronise e-mails or calendar entries. Watch the status bar for messages from the app. The functions will only be available again after you have enabled the device administrator.

☑ Select the device administrator and confirm the activation/deactivation in the dialogue.

Installation of apps from unknown sources

The telephone can allow the installation of apps from unknown sources (e. g. App Shop, websites, e-mails, etc.)

Caution: Apps and files downloaded from the Internet can contain viruses which can damage your telephone.

- To protect your telephone and your personal data, we strongly recommend you only download apps and files from trustworthy sources.

☑ ☐ **Unknown sources**

Important: If you install additional apps, the telephone's functionality may be affected, including loss of use. When the Auerswald service team or specialised dealer checks the telephone, it is reset to its factory settings. This process removes any previously installed apps and data, so these must then be reinstalled separately.

Note: Click **> Settings > Device > Apps > app name** to check, which of your telephone's functions and which personal data an app can access.

☑ The installation of apps from unknown sources is alllowed.

CREDENTIAL STORAGE

Trusted credentials ☑ ☐

Access can be granted for apps to the credentials storage of the telephone. Encrypted certificates with the corresponding passwords and other credentials for network connections can be stored in the credentials storage.

Requirements:

- Password entered for the credentials storage

Note: For information about the necessary credentials contact your system administrator.

☑ Select the credentials and confirm the activation/deactivation in the dialogue. With the activation of the corresponding apps, they will be granted access to the credentials of the telephone.

Install certificate from SD card

A certificate is a digital data set that contains identifying information about e. g. a service or website. A certificate contains an algorithmic signature that confirms that the communication is encoded and that the telephone actually communicates with the required service.

Requirements:

- Data storage device ready to use
- A certificate, saved in the data storage device

Note: Only certificates which are not yet saved on the telephone are displayed.

Select the certificate from the data storage device, enter a name and, if requested, activate the screen lock. The following setting must also be made:

Credential use:

Select the certificate use. Subsequently, the certificate is saved in the telephone's credential storage and can then be used, for example, to establish a secure network connection

---

Note: Under **Settings > COMfortel > (More) > Phone certificates**, the phone certificates can be viewed and checked for correctness.

Language on the Telephone

You can configure the telephone to suit the particular local language by setting the language for the display and the keyboard.

Proceed as follows:

- Using the Configuration Manager (page **Settings > User > Language & input**)
- Using the telephone (page **> Settings > User > Language & input**)

Settings Configuration Manager Telephone language

Language

Select the telephone language.

Settings Telephone Telephone Language

Language

Select the telephone language.

App Accounts

Accounts serve to store messages, contacts and other data on your telephone.

Synchronising the accounts allows you to compare data from the telephone with data from other sources of synchronisation, e. g. PBXs or servers of providers.

You can define which accounts and data are to be synchronised, e. g.:

- Telephone book of the PBX (contacts)
- Calendar (Calendar Sync), contacts (Contacts Sync)
- Exchange ActiveSync-, IMAP and POP3 accounts (e-mail)
- Data used by apps

Notes:

Some account, for example, the telephone book of the PBX (contacts), can only be synchronised in one direction. Synchronised contacts cannot be edited on the telephone.

Other accounts can be synchronised in both direction. Changes to data on the telephone will also be taken over for data at the source of synchronisation.

In order to synchronise Exchange ActiveSync accounts, calendar (Calendar Sync) and contacts (Contacts Sync) need to be unblocked in the Auerswald/FONtevo online shop for a fee (see Service and Maintenance > Extending the Telephone Functionality).

Proceed as follows for configuration:

- Managing app account (adding, deleting, synchronizing).
  - Using the telephone (page **> Settings > Accounts**)

+ Add account

Note: When the telephone is operated on the PBX, accounts for synchronisation with the PBX will be added automatically. The telephone book of the PBX will automatically be synchronised with the contacts app.

Depending on the account type, follow the instructions on the display.

Synchronisation on/off

Account name ☑ ☐

Notes:

Depending on the account, different account elements which can be synchronised for this account will be displayed, e. g. contacts. You can switch synchronisation on and off separately for each account.

When disabling the synchronisation, data that was synchronised in the telephone so far will not be deleted.

☑ Data of the selected account element will be synchronised.

Manual synchronization

Account name > *Menu* **> Sync now**

Requirements:

- Automatic account synchronisation disabled

The current status of the account is displayed:

- Account will be synchronised automatically
- Account will not be synchronised automatically

Remove account

Account name > Menu > Remove account

Note: Deleting an account also deletes all its messages, contacts and other data from the telephone.

The selected account will be deleted.

Date and Time

The telephone's status line shows the calendar week, date and time. If the telephone is in the idle state, the calendar week, date and time are also displayed on the display.

The date and time are needed to log incoming and outgoing calls and to control the telephone functions, e. g. automatic updates.

Note: The time is converted automatically from winter time to summer time and vice versa (GMT +1:00 or GMT +2:00) on the appropriate dates.

Proceed as follows for configuration:

- Setting date and time.
  - Using the Configuration Manager (page **Settings > System > Date & Time**)
  - Using the telephone (page **> Settings > System > Date & time**)

Settings Configuration Manager Time and Date

Proceed as follows:

- Using the Configuration Manager (page **Settings > System > Date & Time**)

Date & Time

☑ ☐ **NTP (Network Time Protocol)**

As the time on a computer or on other devices in the network is only rarely precisely adjustable, the NTP (Network Time Protocol) is used. This is a protocol that is used to synchronise the time on a computer or on other devices in the network with other computers or with an external clock via the Internet. An NTP server is selected to perform the time synchronisation. The time provided by the NTP server is synchronised as exactly as possible to Coordinated Universal Time (UTC).

If a local NTP server is available in a local network, it can be selected, or a public NTP server from a public list on the Internet can be used.

☑ The time will automatically be adopted from the NTP server. The following entry must additionally be made:

NTP server

Enter NTP server address.

☑ ☐ **Use 24-hour format**

☑ 24-hour format is selected

☐ 12-hour format is selected. The following settings must additonally be made:

Time indication

- **am**: Time applies to morning.
- **pm**: Time applies to afternoon.

Select time zone

Note: If you change the time zone, the time stamp used for data on the telephone is modified to suit the new time zone.

Select the correct time zone to ensure that all data on the telephone that has a time stamp, such as calendar entries or e-mails, is displayed with the correct time.

Select date format

Select the date format.

Settings Telephone Time and Date

Proceed as follows:

- Using the Telephone (page **> Settings > System > Date & Time**)

Date & Time

☑ ☐ **NTP (Network Time Protocol)**

As the time on a computer or on other devices in the network is only rarely precisely adjustable, the NTP (Network Time Protocol) is used. This is a protocol that is used to synchronise the time on a computer or on other devices in the network with other computers or with an external clock via the

Internet. An NTP server is selected to perform the time synchronisation. The time provided by the NTP server is synchronised as exactly as possible to Coordinated Universal Time (UTC).

If a local NTP server is available in a local network, it can be selected, or a public NTP server from a public list on the Internet can be used.

☑ The time will automatically be adopted from the NTP server. The following entry must additionally be made:

NTP server

Enter NTP server address.

☑ ☐ **Use 24-hour format**

☑ 24-hour format is selected

☐ 12-hour format is selected. The following settings must additonally be made:

Time indication

- **am**: Time applies to morning.
- **pm**: Time applies to afternoon.

Select time zone

Note: If you change the time zone, the time stamp used for data on the telephone is modified to suit the new time zone.

Select the correct time zone to ensure that all data on the telephone that has a time stamp, such as calendar entries or e-mails, is displayed with the correct time.

Select date format

Select the date format.

Telephone Information

If required you can display detailed information about your telephone:

- Legal information (Open Source licenses)
- Hardware (power supply, serial number, MAC address, upgrades)
- Availability (call forwarding, answering machine, voice mailbox)
- Firmware version
- Android version
- PBX (name, firmware version, serial number)
- Kernel version
- Build number
- Bootloader CPU board

Proceed as follows:

- Using the Configuration Manager (page **Information**)
- Using the telephone (page **> Settings > System > About phone**)

Using the Configuration Manager

Information

- **Device:** Information about the telephone's hardware and software.
- **Accessibility:** Information about the accessibility of the telephone.
- **Bluetooth Dongle** (only COMfortel 3600 IP): Information about the Bluetooth Dongle.
- **Network data stream:** Here, the network data stream can be recorded.
- **Licence Information:** Information about the licences.

Using the Telephone

Phone status

Tap on a telepohone information in the selection list to open further information.

External Control

uaCSTA and Action URLs (HTTP-Requests) belong to the external control.

Proceed as follows for configuration:

- Enable/disable uaCSTA
  - Using the Configuration Manager (page **Settings > COMfortel > External control**)
  - Using the telephone (page **> Settings > COMfortel > More > External control**)
- Configuring and switching Action URLs (HTTP-Requests) on/off
  - Using the Configuration Manager (page **Settings > COMfortel > External control**)
  - Using the telephone (page **> Settings > COMfortel > More > External control**)

Receiving Action URLs (HTTP-Requests)

When receiving Action URLs, the telephones acts as HTTP server and receives HTTP-Requests from a HTTP Client. Action URLs initiate an action in the telephone (e. g. a restart of the telephone).

Requirements:

- In the telephone enabled **Receiving of Action URLs** check box.

Note: You will find further information about the Action URLs on the Internet (see **www.auerswald.de/service** under **Developer**.

1. Start a browser (e.g. Mozilla Firefox).

2. The following table shows the possible actions and the corresponding http requests. Enter one of the following HTTP requests:

Reboot	http://phoneIP/remote_control?action=REBOOT
Factory reset	http://phoneIP/remote_control?action=FACTORY_RESET
Update	http://phoneIP/remote_control?action=UPDATE
Provisioning	http://phoneIP/remote_control?action=PROVISIONING
Register	http://phoneIP/remote_control?action=REGISTER
Make call	http://phoneIP/remote_-control?action=CALL&number=<Phone-Number>&accountId=<AccountID>
Accept call	http://phoneIP/remote_control?action=OFFHOOK
Disconnect	http://phoneIP/remote_control?action=HANGUP
DTMF	http://phoneIP/remote_-control?action=DIAL&number=<PhoneNumber>
Hold	http://phoneIP/remote_control?action=HOLD
Retrieve	http://phoneIP/remote_control?action=RETRIEVE
Conference	http://phoneIP/remote_control?action=CONFERENCE

3. Press enter.

Settings Configuration Manager External Control

Proceed as follows:

- Using the Configuration Manager (page **Settings > COMfortel > External control**)

uaCSTA

☑ ☐ **uaCSTA**

uaCSTA (User Agent Computer Supported Telecommunication Application) is a CTI (Computer Telephony Integration) solution on SIP basis. CTI enables e. g. the establishment, transfer and end of telephone calls and the initiation of telephone conferences. CSTA protocols are used for standardised communication between PBXs and computer programmes. uaCSTA is a restricted form of CSTA and uses only XML coding for data exchange.

Requirements:

- Selected server type **Broadsoft server** or **ESTOS CSTA (ECSTA)**

☑ The telephone is ready to accept uaCSTA requests.

Action URL

☑ ☐ **Receiving of Action URLs**

The telephone can receive and execute HTTP-requests via the PC with Action URLs. Furthermore, the telephone can send commands.

☑ Action URLs are executed. The telephone receives HTTP-Requests from the PC and executes them.

Sending of Action URLs

The following actions can be sent from the telephone:

- Incoming calls
- Connect
- Disconnect
- Hold
- Idle

Settings Telephone External Control

Proceed as follows:

- Using the telephone (page **Settings > COMfortel > More > External control**)

uaCSTA

☑ ☐ **uaCSTA**

uaCSTA (User Agent Computer Supported Telecommunication Application) is a CTI (Computer Telephony Integration) solution on SIP basis. CTI enables e. g. the establishment, transfer and end of telephone calls and the

initiation of telephone conferences. CSTA protocols are used for standardised communication between PBXs and computer programmes. uaCSTA is a restricted form of CSTA and uses only XML coding for data exchange.

Requirements:

- Selected server type **Broadsoft server** or **ESTOS CSTA (ECSTA)**

☑ The telephone is ready to accept uaCSTA requests.

Action URL

☑ ☐ Receiving of Action URLs

The telephone can receive and execute HTTP-requests via the PC with Action URLs. Furthermore, the telephone can send commands.

☑ Action URLs are executed. The telephone receives HTTP-Requests from the PC and executes them.

Sending of Action URLs

The following actions can be sent from the telephone:

- Incoming calls
- Connect
- Disconnect
- Hold
- Idle

Service and Maintenance

This chapter describes functions that are useful in a service case. They include functions for deleting, saving and restoring data, either if a disruption occurs, or when the telephone or the PBX is replaced.

Topics

– Backup and Reset (page 601)
– Update and Provisioning (page 609)
– Remote Configuration (page 632)
– Shutting Down and Restarting the Telephone (page 636)
– Extending the Telephone Functionality (page 637)
– Service Data (page 640)

Backup and Reset

During a data backup, a backup file is created that contains the configuration and other data for the telephone. If necessary, the backup file can be restored to the telephone.

Resetting the telephone to the factory settings will delete all data on the telephone.

Proceed as follows for configuration:

- Creating data backup, saving data backup into the telephone, resetting to factory settings.
  - Using the Configuration Manager (page **Settings > Personal > Backup & reset**)
  - Using the telephone (page **> Settings > Personal > Backup & reset**)
- Creating service data.
  - Using the Configuration Manager (page **Settings > Personal > Backup & reset**)
- Downdating the telephone.
  - Using the telephone

Settings Configuration Manager Backup and Reset

Proceed as follows:

- Using the Configuration Manager (page **Settings > Personal > Backup & reset**)

Backup & reset

Restore backup

If required, you can restore the backup file saved on the data storage device or the PC to the telephone.

Requirements:

- A backup file saved on the hard disk

Restore a backup from your PC to the phone

Select the saved backup file and click Save.

Create backup

When you create a data backup, a backup file (Backup) will be generated on the chosen medium.

If the telephone does not operate correctly, and this is not the result of incorrect use or external effects, you can use the service data to check the fault.

Note: The internal memory and the USB port is only available on a COMfortel 3600 IP.

Important: If you reset to factory settings, a backup on the internal memory will be deleted.

Important: Note the following legal notes before creating the data backup. The data backup contains the following legally protected components:

Configuration of the telephone

Names of the internal subscribers

Passwords of the telephone, the subscribers, the VoIP accounts and the VoIP subscribers

Address book of the telephone

Connection data records containing destination, source and time information for a telecommunication connection

Before the data backup is created, all telephone users must be informed that these data will be forwarded and must also be informed who will use the received data. It is absolutely necessary to store the data in accordance with the legal requirements. If you want to make the data backup available for your specialized dealer or the manufacturer for analysis, you must make sure that the legal requirements are fulfilled.

Create a backup of your data on your PC > Export

Read the disclaimer and enter **ok** in the entry field. Subsequently, click **Export** and **Save data > OK**

Service data > Export

Read the disclaimer and enter **ok** in the entry field. Subsequently, click **Export** and **Save data> OK**

Note: The technical departments (Service and Development) can use this file to perform troubleshooting..

Telephone configuration> Export

Note: In contrast to the data backup, only the data that can be provisioned will be exported.

Read the disclaimer and enter **ok** in the entry field. Subsequently, click **Export** and **Save data> OK**

Factory data reset

If you reset the telephone to factory settings you can delete data and settings saved in it. This includes, for example, deleting downloaded apps, personal data (e.g. contacts), function key assignments and your customised configuration of the home screens.

You can also delete data that is stored on the data storage device, e. g music and photos.

☑ ☐ **Erase SD card**

☑ Erase all data on the SD card, such as music or photos. This will happen when you click **Reset phone**.

Reset phone

Note:

By clicking **Reset phone**, you will be asked once more if you want to reset the telephone to factoty settings.

All your personal data and downloaded apps are deleted. You cannot undo this action.

The telephone is shut down and then restarted. This can take some time.

Settings Telephone Backup and Reset

Proceed as follows:

- Using the telephone (page **> Settings > Personal > Backup & reset**)

CREATE AND RESTORE BACKUP

Create backup

When you create a data backup, a backup file (Backup) will be generated on the chosen medium.

Note: The internal memory and the USB port is only available on a COMfortel 3600 IP.

Important: If you reset to factory settings, a backup on the internal memory will be deleted.

Important: Note the following legal notes before creating the data backup. The data backup contains the following legally protected components:

Configuration of the telephone

Names of the internal subscribers

Passwords of the telephone, the subscribers, the VoIP accounts and the VoIP subscribers

Address book of the telephone

Connection data records containing destination, source and time information for a telecommunication connection

Before the data backup is created, all telephone users must be informed that these data will be forwarded and must also be informed who will use the received data. It is absolutely necessary to store the data in accordance with the legal requirements. If you want to make the data backup available for your specialized dealer or the manufacturer for analysis, you must make sure that the legal requirements are fulfilled.

☑ ☐ **Accept legal notes**

Read the disclaimer, accept the legal notes and click **OK**.

Restore backup

If required, you can restore the backup file saved on the data storage device or the PC to the telephone.

Requirements:

- Data storage device inserted into slot
- A backup file, saved on the data storage device

Select the data backup file and > **OK**.

PERSONAL DATA

Factory data reset

If you reset the telephone to factory settings you can delete data and settings saved in it. This includes, for example, deleting downloaded apps, personal data (e.g. contacts), function key assignments and your customised configuration of the home screens.

You can also delete data that is stored on the data storage device, e. g music and photos.

☑ ☐ **Erase SD card**

☑ Erase all the data on the SD card, such as music or photos. This will happen when you click **Reset phone**.

Reset phone

Note:

By clicking **Reset phone**, you will be asked once more if you want to reset the telephone to factoty settings.

All your personal data and downloaded apps are deleted. You cannot undo this action.

Reset phone: The telephone is shut down and then restarted. This can take some time.

Downgrading the Telephone

It is possible to reset the telephone to a previous firmware version. In some cases, this means that the Android version is also resetted. The reset to the previous Android version actually goes together with the change of the firmware version but nevertheless, differs from the downgrading of only the firmware version. Both variants are described in the following.

Requirements:

- corresponding firmware file (*.rom)

1. Create a data Backup (see chapter Service and Maintenance > Backup and Reset > Creating a Backup).

2. Make a manual update (see chapter Service and Maintenance > Update and Provisioning > Triggering a Manual Update).

   After the upload of the firmware file, first the COMfortel logo and then the Android logo appears on the Display.

Important: If you want to change the firmware version without the changing of the Android version, wait until the setup assistant starts und then configure the telephone. Otherwise, if you also want to change the Android version, proceed as follows.

---

3. Disconnect the device from the power supply.

4. Press the third function key from above and the third function key from below, hold them and reconnect the device with the power supply.

   The LEDs of the second function key from above and from below start to flash.

5. Release the function keys as soon as the LEDs change the flashing rhythm.

   After a short time, the Setup assistant opens.

6. Put the telephone into operation (see the Instructions).

Update and Provisioning

Update

An update means the installation of a new firmware version to integrate new features and to solve possible problems. The device sets up a connection with an update server, over which it receives the latest firmware (the settings on the device remain unchanged). Except for the charges for the server connection, the update is free of charge.

There are several ways to perform an update:

Manual update

If a manual update is performed, a firmware file (*.rom) is loaded into the telephone from the Configuration Manager or a data storage device, enabling the new firmware to be saved to the telephone. After the update, the telephone reboots automatically.

Automatic update from update server

In the case of an automatic update from the update server, a regular (e.g. weekly) automatic update can be configured. You can set the weekday and time.

Provisioning

Provisioning is the automated configuration of the telephone from a provisioning server. The device sets up a connection with a provisioning server, over which it receives the necessary configuration data. Following that the firmware is updated.

Note: You find further information about the provisioning process on the Internet (see **www.auerswald.de/service** under **Developer**).

There are several ways to perform a provisioning:

Automatic provisioning

In the case of automatic provisioning from the provisioning server, regular (e.g. weekly) automatic provisioning can be configured. You can set the weekday and time.

There are several different ways to perform an automatic provisioning:

- Provisioning with DHCP data
- Provisioning via the redirect server
- Provisioning from PBX search
- Provisioning via a set provisioning server

Proceed as follows for configuration:

- Setting the update options (manual update, schedule, update settings, distributing firmware, etc.).
  - Using the Configuration Manager (page **Settings > System > Update & provisioning > Update**)
  - Using the telephone (page **> Settings > System > Update & provisioning > Update settings**)
- Setting the provisioning options (automatic provisioning, DHCP data, Redirect Server, Provisioning from PBX search, Remote configuration via SIP messages).
  - Using the Configuration Manager (page **Settings > System > Update & provisioning**)

– Using the telephone (page **> Settings > System > Update & provisioning > Provisioning settings**)

Settings Configuration Manager Update and Provisioning

Procced as follows:

- Using the Configuration Manager (page **Settings > System > Update & provisioning**)

Update

Manual update > Search

If no update server is available, you can initiate an update by loading a firmware file in the telephone from your hard disk or from a data storage device.

Note: The automatic installation of updates is switched off when you perform a manual update. You can switch the automatic installation of updates on again under **> Settings > System > Update & provisioning > Automatic update**.

Requirements:

- Firmware file (*.rom) saved on the hard disk

Notes:

You find the firmware file on the Internet (Auerswald: **www.auerswald.de/service**, FONtevo: **support.fontevo.com**).

To get information about the firmware version that is currently saved in the telephone, select **> Settings > System > About phone** or, in the Configuration Manager, click on the logo at the top right with the left-hand mouse button.

Select the firmware file (*.rom) > Save. To activate the new firmware, click **Reboot**.

Notes:

To restart the telephone at a later point in time, tap on **Cancel** and then, under **Settings > System > Update & provisioning > Reboot**, tap on **Reboot** when you want to restart the telephone.

After a firmware update you usually require a new version of the instructions. You find up-to-date instructions on the Internet (Auerswald: **www.auerswald.de/service**, FONtevo: **support.fontevo.com**).

In order to use the new features after the telephone's firmware has been updated, you often may need to update the PBX firmware (see PBX operation instructions).

Schedule

The schedule specifies the weekday and time at which the update and provisioning are to be performed.

Note: To avoid overloading of the provisioning server, the automatic update and provisioning starts within a time slot of 60 minutes after the set time.

Time

Indicates when provisioning is to be performed.

Scheduled days of week

Indicates the week days on which the update and provisioning is to be performed.

Update settings

When performing an automatic update the system checks whether a new firmware update is available on the update server, at the set point in time. If an update is available, the new firmware is loaded into the telephone if the automatic installation of updates is selected.

Requirements:

- The PBX or telephone must be connected to a broadband Internet connection
- Address of the DNS server entered on the **Settings > Network > Ethernet**
- The set schedule must be entered on the **Settings > System > Update & provisioning > Update**
- The address of the update server must be entered on the **Settings > System > Update & provisioning > Update**
- When the automatic update is performed: Data storage device inserted into slot

☑ ☐ **Check for updates**

☑ ☐ **Automatically install update**

Notes:

If only the **Check for updates** check box is selected, the system only checks for the availability of a new firmware version and, if there is one, it displays it. The firmware is not updated until the **Automatically install update** check box is selected.

After a firmware update you usually require a new version of the instructions. You find up-to-date instructions on the Internet (Auerswald: **www.auerswald.de/service**, FONtevo: **support.fontevo.com**).

In order to use the new features after the telephone's firmware has been updated, you often may need to update the PBX firmware (see PBX‘s Advanced Information).

Distributing firmware ☑ ☐

A new version of the firmware can be distributed from one system telephone to other system telephones connected to the PBX.

Requirements:

- Enabled **Distributing firmware** check box

Note: If the check box **Distributing firmware** is enabled, the distribute.rom file will, during an update, be automatically created on the corresponding data storage device.

- Current firmware version on the distributing telephone
- Data storage device inserted into slot of the firmware distributing telephone with firmware file. The firmware file must be renamed into **distribute.rom**

Note: The distribute.rom file can be saved onto the data storage device either via the file manager (see chapter Settings > File Manager) or PC. You find current firmware versions on the Internet (Auerswald: **www.auerswald.de/service**, FONtevo: **support.fontevo.com**).

- Firmware version in the telephone must correspond to the distribute.rom file on the data storage device

Notes:

The telephone that receives the firmware must have a firmware version as of 2.4.

The PBX must have a firmware version as of 6.6.

Distributing the firmware is possible from one COMfortel 3600 IP to other COMfortel 3600 IP and from COMfortel 1400 IP/2600 IP to other COMfortel 1400 IP/2600 IP.

When operating the telephone on another PBX than the PBX, the telephone can be updatet directly from the firmware distributing telephone. For this, you must enter the update URL **http://<IP address>/distribute** in the telephone.

☑ Firmware may be distributed. The telephone that distributes the firmware is at this moment used as update server.

Update server URL

To automatically update the firmware you must enter the URL of the update server. The URL of the update server is already entered in the factory settings. However, if it is not, or if you want to change the URL, follow the instructions below.

Firmware update > Update

If you have entered the address of an update server, you can check the update settings and the functioning of the server by performing an update test.

Requirements:

- The PBX or telephone must be connected to a broadband Internet connection
- The address of the DNS server must be entered in **Settings > Network > Ethernet**
- The address of the update server must be entered in **Settings > System > Update & provisioning > Update**
- data storage device inserted into slot

The check for new firmware is carried out.

If no firmware file is available on the update server, a warning message is displayed to tell you that no new firmware is available.

If the telephone's update settings are incorrect, a warning message is displayed to tell you that the check for new firmware was unsuccessful.

If the update settings of the telephone are correct and a firmware file is available on the update server, the new firmware is installed. The telephone is restarted, and the login window opens.

Notes:

To restart the telephone at a later point in time, tap on **Cancel** and then, under **Settings > System > Update & provisioning > Reboot**, tap on **Reboot** when you want to restart the telephone.

After a firmware update you usually require a new version of the instructions. You will find up-to-date instructions on the Internet (Auerswald: **www.auerswald.de/service**, FONtevo: **support.fontevo.com**).

In order to use the new features after the telephone's firmware has been updated, you often may need to update the PBX firmware (see PBX‘s Advanced Information).

Provisioning

☑ ☐ Auto-Provisioning

During automatic provisioning the configuration data is automatically loaded in the telephone from the provisioning server, at the set point in time. The system checks if a new firmware update is available on the update server. If an update is available, the new firmware is also loaded into the telephone if the automatic installation of updates is selected.

Requirements:

- The PBX or telephone must be connected to a broadband Internet connection
- Address of the DNS server entered on the **Settings > Network > Ethernet**
- The set schedule must be entered on the **Settings > System > Update & provisioning > Update**
- The URL of the provisioning server must be entered on the **Settings > System > Update & provisioning > Provisioning**
- When automatic provisioning is performed: Data storage device inserted into slot

☑ ☐ **Provisioning with DHCP data**

☑ The telephone receives the IP address of the provisioning server from a DHCP server. In addition to IP addresses, it is also possible to transmit further data to control the provisioning process.

☑ ☐ **Redirect server**

☑ The telephone receives the IP address of the provisioning server from the redirect server.

☑ ☐ **Provisioning from PBX search**

☑ The automatic configuration of the telephones is carried out via the PBX.

Provisioning server URL

If automatic provisioning of the configuration data is not carried out via DHCP data or via a redirection server, you must enter the URL of the provisioning server.

Note: You find further information about the provisioning process on the Internet (see **www.auerswald.de/service** under **Developer**).

Permit remote configuration via SIP messages ☑ ☐

Note: You find further information about configuration via SIP messages on the Internet (see **www.auerswald.de/service** under **Developer**).

☑ The telephone is configured via incoming SIP messages. An additional entry must be made:

IP address of configuration server (1-5)

Configure at least one configuration server.

Settings Telephne Update and Provisioning

Proceed as follows:

- Using the telephone (page **> Settings > System > Update & provisioning**)

Update & provisioning settings

UPDATE FROM USB STICK/SD CARD

If no update server is available, you can initiate an update by loading a firmware file in the telephone from your hard disk or from a data storage device.

Note: The automatic installation of updates is switched off when you perform a manual update. You can switch the automatic installation of updates on again under **> Settings > System > Update & provisioning > Automatic update**.

Requirements:

- Firmware file (*.rom) saved on the data storage device
- Data storage device inserted into slot

Notes:

You find the firmware file on the Internet (Auerswald: **www.auerswald.de/service**, FONtevo: **support.fontevo.com**).

To get information about the firmware version that is currently saved in the telephone, select **> Settings > System > About phone** or, in the Configuration Manager, click on the logo at the top right with the left-hand mouse button.

Select the firmware file (*.rom) > Update. To activate the new firmware, click **Reboot**.

Notes:

To restart the telephone at a later point in time, tap on **Cancel** and then, under **Settings > System > Update & provisioning > Reboot**, tap on **Reboot** when you want to restart the telephone.

After a firmware update you usually require a new version of the instructions. You find up-to-date instructions on the Internet (Auerswald: **www.auerswald.de/service**, FONtevo: **support.fontevo.com**).

In order to use the new features after the telephone's firmware has been updated, you often may need to update the PBX firmware (see PBX operation instructions).

Schedule

The schedule specifies the weekday and time at which the update and provisioning are to be performed.

Note: To avoid overloading of the provisioning server, the automatic update and provisioning starts within a time slot of 60 minutes after the set time.

Time

Indicates when provisioning is to be performed.

Scheduled days of week ☑ ☐

Indicates the week days on which the update and provisioning is to be performed.

Provisioning settings

☑ ☐ Auto-Provisioning

During automatic provisioning the configuration data is automatically loaded in the telephone from the provisioning server, at the set point in time. The system checks if a new firmware update is available on the update server. If an update is available, the new firmware is also loaded into the telephone if the automatic installation of updates is selected.

Requirements:

- The PBX or telephone must be connected to a broadband Internet connection
- Address of the DNS server entered on the **Settings > Network > Ethernet**
- The set schedule must be entered on the **Settings > System > Update & provisioning > Update**
- The URL of the provisioning server must be entered on the **Settings > System > Update & provisioning > Provisioning**
- When automatic provisioning is performed: Data storage device inserted into slot

☑ ☐ Provisioning with DHCP data

☑ The telephone receives the IP address of the provisioning server from a DHCP server. In addition to IP addresses, it is also possible to transmit further data to control the provisioning process.

☑ ☐ Redirect server

☑ The telephone receives the IP address of the provisioning server from the redirect server.

☑ ☐ **Provisioning from PBX search**

☑ The automatic configuration of the telephones is carried out via the PBX.

Provisioning server URL

If automatic provisioning of the configuration data is not carried out via DHCP data or via a redirection server, you must enter the URL of the provisioning server.

Note: You find further information about the provisioning process on the Internet (see **www.auerswald.de/service** under **Developer**).

Provisioning test

You can check the provisioning settings, and the way the server works, by initiating a one-time provisioning test.

Requirements:

- The PBX or telephone must be connected to a broadband Internet connection
- The address of the DNS server must be entered in **> Settings > Network > Ethernet**
- Under **> Settings > System > Update & provisioning > Automatic Update**, enable the **Check for updates** check box
- Under **> Settings > System > Update & provisioning > Provisioning settings**, enable the **Auto-provisioning** check box
- The address of the provisioning server must be entered under **> Settings > System > Update & provisioning**
- Data storage device inserted into slot

Important: As soon as you tap on **Provisioning test**, this may delete the existing configuration and firmware data, which will be replaced by new data. The telephone is restarted.

If the update and provisioning settings for the telephone are correct, and configuration and firmware data is present on the servers, this data is loaded in the telephone. The firmware is enabled by an immediate restart of the telephone.

If the update and provisioning settings for the telephone are incorrect, or no data is present on the servers, a message that provisioning has failed is displayed in the status line on the telephone.

Notes:

After a firmware update you usually require a new version of the instructions. You find up-to-date instructions on the Internet (Auerswald: **www.auerswald.de/service**, FONtevo: **support.fontevo.com**).

In order to use the new features after the telephone's firmware has been updated, you often may need to update the PBX firmware (see PBX operation instructions).

Permit remote configuration via SIP messages ☑ ☐

Note: You find further information about configuration via SIP messages on the Internet (see **www.auerswald.de/service** under **Developer**).

☑ The telephone is configured via incoming SIP messages. An additional entry must be made:

IP address of configuration server (1-5)

Configure at least one configuration server.

Update settings

Update settings

When performing an automatic update the system checks whether a new firmware update is available on the update server, at the set point in time. If an update is available, the new firmware is loaded into the telephone if the automatic installation of updates is selected.

Requirements:

- The PBX or telephone must be connected to a broadband Internet connection
- Address of the DNS server entered on the **Settings > Network > Ethernet**
- The set schedule must be entered on the **Settings > System > Update & provisioning > Update**
- The address of the update server must be entered on the **Settings > System > Update & provisioning > Update**
- When the automatic update is performed: Data storage device inserted into slot

☑ ☐ **Check for updates**

☑ ☐ **Automatically install update**

Notes:

If only the **Check for updates** check box is selected, the system only checks for the availability of a new firmware version and, if there is one, it displays it. The firmware is not updated until the **Automatically install update** check box is selected.

After a firmware update you usually require a new version of the instructions. You find up-to-date instructions on the Internet (Auerswald: **www.auerswald.de/service**, FONtevo: **support.fontevo.com**).

In order to use the new features after the telephone's firmware has been updated, you often may need to update the PBX firmware (see PBX‘s Advanced Information).

Update server URL

To automatically update the firmware you must enter the URL of the update server. The URL of the update server is already entered in the factory settings. However, if it is not, or if you want to change the URL, follow the instructions below.

Firmware update > Update

If you have entered the address of an update server, you can check the update settings and the functioning of the server by performing an update test.

Requirements:

- The PBX or telephone must be connected to a broadband Internet connection
- The address of the DNS server must be entered in **Settings > Network > Ethernet**
- The address of the update server must be entered in **Settings > System > Update & provisioning > Update**
- data storage device inserted into slot

The check for new firmware is carried out.

If no firmware file is available on the update server, a warning message is displayed to tell you that no new firmware is available.

If the telephone's update settings are incorrect, a warning message is displayed to tell you that the check for new firmware was unsuccessful.

If the update settings of the telephone are correct and a firmware file is available on the update server, the new firmware is installed. The telephone is restarted, and the login window opens.

Notes:

To restart the telephone at a later point in time, tap on **Cancel** and then, under **Settings > System > Update & provisioning > Reboot**, tap on **Reboot** when you want to restart the telephone.

After a firmware update you usually require a new version of the instructions. You will find up-to-date instructions on the Internet (Auerswald: **www.auerswald.de/service**, FONtevo: **support.fontevo.com**).

In order to use the new features after the telephone's firmware has been updated, you often may need to update the PBX firmware (see PBX‘s Advanced Information).

Distributing firmware ☑ ☐

A new version of the firmware can be distributed from one system telephone to other system telephones connected to the PBX.

Requirements:

- Enabled **Distributing firmware** check box

Note: If the check box **Distributing firmware** is enabled, the distribute.rom file will, during an update, be automatically created on the corresponding data storage device.

- Current firmware version on the distributing telephone
- Data storage device inserted into slot of the firmware distributing telephone with firmware file. The firmware file must be renamed into **distribute.rom**

Note: The distribute.rom file can be saved onto the data storage device either via the file manager (see chapter Settings > File Manager) or PC. You find current firmware versions on the Internet (Auerswald: **www.auerswald.de/service**, FONtevo: **support.fontevo.com**).

- Firmware version in the telephone must correspond to the distribute.rom file on the data storage device

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Notes:

The telephone that receives the firmware must have a firmware version as of 2.4.

The PBX must have a firmware version as of 6.6.

Distributing the firmware is possible from one COMfortel 3600 IP to other COMfortel 3600 IP and from COMfortel 1400 IP/2600 IP to other COMfortel 1400 IP/2600 IP.

When operating the telephone on another PBX than the PBX, the telephone can be updatet directly from the firmware distributing telephone. For this, you must enter the update URL **http://<IP address>/distribute** in the telephone.

☑ Firmware may be distributed. The telephone that distributes the firmware is at this moment used as update server.

Procedure in Case of Firware Update Problems

If you have carried out a firmware update, and the firmware proves to be faulty, you can upload another firmware in the telephone.

Proceed as follows:

- Using the telephone

Requirements:

- Firmware file (*.rom) saved on the hard disk

Notes:

You find the firmware file on the Internet (Auerswald: **www.auerswald.de/service**, FONtevo: **support.fontevo.com**).

To get information about the firmware version that is currently saved in the telephone, select **> Settings > System >About phone** or, in the Configuration Manager, click on the logo at the top right with the left-hand mouse button.

To upload another firmware in the telephone, proceed as follows:

1. Remove the telephone from the power supply, by detaching the PoE cable.
2. Press the **hook** key and the **query** key simultaneously. Keep both keys pressed.
3. While keeping both keys pressed, reconnect the telephone using the PoE cable.

The LEDs on the loudspeaker and Message key begin to flash green quickly for approximately 4 seconds.

After that the LEDs flash more slowly for approximately 4 seconds.

4. As soon as the LEDs start flashing more slowly, release the **hook** key and the **query** key.

5. Open the Configuration Manager.

6. Click **Select file**.

7. Select the file (*.rom) and then click **Open** (this text varies according to which operating system is in use).

8. Click **Upload**.

9. To activate the new firmware, click **Reboot**.

Remote Configuration

Apart from the configuration via the internal network, there is also the possibility of remote configuration via the Internet.

Configuring the Telephone Remotely with ARA Server via the Internet

Requirements:

- Computer with existing connection to the Internet (DSL)
- Telephone with existing connection to the Internet (DSL)
- Knowledge of the serial number of the telephone
- Set external PIN
- Configured remote switching number
- Knowledge of user name and password for the Configuration Manager
- Enabled (Auerswald) Remote Access (can be enabled by pressing Menu #272 (ARA) on the telephone)

1. Start a browser (e.g. Mozilla Firefox).
2. In the browser's address field, enter **https://remote-access.auerswald.de**.
3. Enter the data in the **User name/Customer number** and **Password/PIN** input fields, and click **Login**.
4. Register the telephone if this has not been done yet.

a) Click .

b) In the **Serial number** entry field, enter the serial number of the telephone.

c) Make further entries for the data record and click **Save**.

5. Click .

6. Log in to the Configuration Manager.

7. Make the desired changes.

8. Log out from the Configuration Manager.

9. Click in the user interface of the ARA server.

Storage

The telephone can be fitted with an data storage device on which additional multimedia files and downloads from apps can be saved. The amount of available storage is displayed under **> Settings > Device > Storage**. A file management system is not provided in the telephone's operating system, but you can set one up by installing an appropriate app.

The version of the data storage device used by the telephone is shown on the bottom side of the telephone.

Removing and Mounting an SD Card

To avoid data loss you should remove the data storage device in the proper manner.

Note: If the data storage device is removed unexpectedly, it is write-protected when it is inserted into the telephone again. Follow these steps to remove write protection after the data storage device was removed unexpectedly.

Proceed as follows:

- Using the telephone

1. Tap on **> Settings > Device > Storage**.
2. Tap on **Unmount SD card**.

3. Tap on **OK**.

   You can now remove the data storage device. Under **SD card** you now see **Mount SD card**.

4. After you have inserted the data storage device again, tap on **Mount SD card** to make the data storage device available again.

Erasing a data storage device

When you swap the data storage device, the new data storage device must be formatted with a compatible file system.

Note: While the inserted data storage device is being formatted with the compatible file system, all the data present on it is deleted.

Proceed as follows:

- Using the telephone

1. Tap on **> Settings > Device > Storage**.

2. Tap on **Erase storage medium**.

   The data storage device is formatted, and all the data on it is overwritten with the compatible file system.

Shutting Down and Restarting the Telephone

The telephone can be switched into the idle state. It can also be restarted when required.

Proceed as follows:

- Using the telephone

1. Tap on **> Settings > System > Shutdown/Reboot**.
2. Select one of the following options:

   Cancel: cancels the operation.

   Restart: restarts the telephone.

   Shutdown: shuts down the telephone.

Note: After you have shut down the telephone as described above, it goes into idle state, but continues to use power. To save electricity, you can shut it down completely by removing the PoE cable. To restart the telephone after a shutdown, remove and reinsert the PoE cable once.

Extending the Telephone Functionality

The telephone can be extended by adding the functions listed below. However, a fee is charged for their activation at the Auerswald/FONtevo online shop.

- Answering machine function COMfortel Voicemail (for COMfortel 2600/3600 IP included in the scope of delivery)
- COMfortel Synchronisation via ActiveSync (for COMfortel 3600 IP included in the scope of delivery)
- IP camera App (for COMfortel 3600 IP included in the scope of delivery)

You can add extra functionality in a number of different ways:

- Purchase and immediate activation via the Configuration Manager
- Purchase from the Auerswald/FONtevo online shop

Proceed as follows for configuration:

- Activating extra functions.
  - Using the Configuration Manager (page **Settings > COMfortel > Activation**)
  - Using the telephone (page **> Settings > COMfortel > More > Activation > ENTER ACTIVATION CODE**)
- Purchasing extra functions.
  - Using the Configurations Manager (page **Settings > COMfortel > Activation**)
  - Using the Internet (Auerswald: **shop.auerswald.de**, FONtevo: **shop.fontevo.com**)

Settings Configuration Manager Online Shop

Proceed as follows:

- Using the Configuration Manager (page **Settings > COMfortel > Activation**)

Activation

Activation/Voucher code

Requirements:

- Activation code from the Auerswald/FONtevo online shop

A list of the possible functional extensions with their activation status (activated/not activated) is displayed. Enter the activation code from the Auerswald/FONtevo online shop.

Note: The activation/voucher codes can also be provisioned (see **www.auerswald.de/service** under **Developer**).

Open shop

Note: You can also ask your specialist dealer to activate your new functions in the Auerswald/FONtevo online shop.

Requirements:

- User account in the Auerswald/FONtevo online shop
- PC with existing Internet connection

The Auerswald/FONtevo online shop opens. Register with your user data an make your purchase.

Settings Telephone Online Shop

Proceed as follows:

- Using the telephone (page **Settings > COMfortel > Activation > ENTER ACTIVATION CODE**)

Activation

Activation/Voucher code

Requirements:

- Activation code from the Auerswald/FONtevo online shop

A list of the possible functional extensions with their activation status (activated/not activated) is displayed. Enter the activation code from the Auerswald/FONtevo online shop.

Note: The activation/voucher codes can also be provisioned (see **www.auerswald.de/service** under **Developer**).

Service Data

If the telephone does not to operate correctly, you can record this behaviour in different log files. These can be sent to the technical departments (Service, Development) for debugging.

Recording the Network Data Stream

To log the Ethernet data stream you can record a network log in PCAP format. This log file can be evaluated (e.g. with Wireshark/Ethereal), to find out the cause of any errors that may have occurred.

The recorded network data stream can include the following components:

- Data streams from other computers in the network
- Connection data sets containing the destination, source, and time information for a telecommunication connection
- The spoken word of both ends of a telecommunication connection
- Telephone configuration data, along with the corresponding PINs and passwords

Important:

Before the recording, every subscriber on the telecommunication connection must be informed that these data will be recorded and must also be informed who will use the received data

If you want to provide the recorded data your specialized dealer or the manufacturer for error analysis, you must make sure that the legal requirements are fulfilled.

Proceed as follows:

- Using the Configuration Manager

Requirements:

- Pop-up blocker which is disabled in the browser or a defined exception rule

1. Click **Information > Network data stream**.
2. In the entry field, tap **Ok** to accept the legal terms and conditions.
3. Click **Start trace**.

   This starts recording the network log.
4. To stop recording the network log, click **Stop trace**.
5. Click **Save** (this text depends on which browser you are using).
6. Click **OK**.

   The backup file is saved in the folder configured for downloads on the PC.

Further steps:

- The technical departments (Service and Development) can use this file to perform debugging.

Glossary

Glossary

A B C D E F G H I J K L M N O P Q R S T
U V W

A

Account

Authorisation to access a VoIP provider or a VoIP PBX. Users must identify themselves by logging in with a username and a password.

ARA Server

(Auerswald) Remote Access Server - for remote configuration of the PBX via user interface and Internet access (**https://remote-access.auerswald.de**).

B

BLF

Busy Lamp Field - module with keys and LEDs to indicate the state (free/ busy, function on/off, etc.) of other extensions.

Bluetooth-Dongle

USB stick to activate Bluetooth functions, available as accessory.

Browser

Special software to display websites from the Internet.

C

Cache

Fast temporary memory that accelerates the access to frequently used data (e. g. repeatedly visited Internet sites).

Call Deflection

Call Deflection - refers to call forwarding during the ringing period. If Call Deflection has been activated, the called subscriber can deflect the call on a case-to-case basis while the telephone is still ringing.

Certificate

Digital key issued by a Certification Authority (CA) to ensure the authentication and secure transmission of e-mails, web sites, etc.

Client

Piece of computer hardware or software that accesses a service made available by a server.

CLIP No Screening

Telephone service for outgoing calls that allows the party called to see a customer-defined phone number instead of the phone number assigned by the network provider.

In this context, no screening means that the customer-defined number is not checked by the public exchange against the assigned numbers. It may contain any phone number you define (e.g., a service phone number).

Codec

Method to encode (digitise) analogue voice data for transmission and decode it again to convert it into back into voice. There are various codecs that feature different voice data compression rates thereby require different band widths for data transmission. The equality of VoIP calls is dependent on the codec used.

D

DDI

Direct Dial In - extension number for dialling directly to a specific subscriber on a telephone system. Example: In the number 0 53 06 / 92 00 - 700, 700 is the Direct Dial In number (DDI) for the Auerswald info-line.

DECT

Digital Enhanced Cordless Telecommunications (previously Digital European Cordless Telephony) - a standard for digital cordless telephones and data transmission. DECT systems provide encrypted transmission between mobile handset and base station.

DHCP

Dynamic Host Configuration Protocol - client/server protocol for dynamically allocating IP addresses and network parameters. The IP addresses are requested by the DHCP clients (PCs in the network) on the DHCP server (for example, a router or the Internet service provider). The DHCP server takes these IP addresses from a set address pool and sends them to the client. In addition, the client receives additional information (for example, the addresses for the standard gateway and DNS server).

The IP address is temporarily allocated for a certain amount of time. If the address is no longer required by the client, the server has access to it again and can allocate it to another client.

Dial Preparation

Dialling of a number before a call is initiated by lifting the receiver or tapping on .

DiffServ

Differentiated Services Flag - flag evaluated by active network components such as routers or switches in networks in order to forward packets according to their priority. This is necessary, for example, to give voice packets (VoIP) priority and to achieve better voice quality.

DNS

Domain Name Service - needed to translate Internet addresses. The name of a computer on the Internet (for example, **www.auerswald.de**) is assigned to the corresponding IP address. This service is provided by DNS servers at the various Internet service providers or by upper domain servers.

Domain

Globally unique name of a website, consisting of third-level domain (e. g. the service name “www“), second-level domain (e. b. “auerswald“) and top-level domain (e. g. the country code “uk“). The domain is part of the URL.

Downdate

Reset of the telephone to the previous firmware version.

Driver

Program or software module that controls the interaction between an operating system or program and the interfaces to connected devices (keyboard, printer, monitor, etc.) or virtual devices.

DSL

Digital Subscriber Line - Internet access technology using a digital transmission standard that provides wide bandwidths for the transmission of data via telecommunication networks.

DTMF

Dual Tone Multi Frequency dialling - dialling method that transmits the dialled number to the exchange as two superimposed sinusoidal signals.

E

End Device

Device that can be operated on a communication network or on a PBX, e.g. telephone, fax machine, answering machine, ISDN PC controller, etc.

Ethernet

Network system with a speed of 10/100/1000 Mbit/s that was developed by the companies INTEL, DEC and Xerox.

Exchange ActiveSync

XML-based protocol for the synchronisation of data (e. g. e-mail messages, contacts, calendars) between a server and an end device.

Exchange Line

General term for a connection that links the PBX to the public switched telephone network. The exchange line joins the provider‘s local exchange and the telephone connection.

Extension

Internal connections of a PBX together with the devices, e. g. telephones and telefaxes, connected to them.

F

Fingerprint

A code exchange mechanism to verify whether the certicates used by both parties to a data communication connection match each other.

Firewall

Network security component that uses a set of security rules to protect a computer network or an individual computer against unauthorised access to or from the network.

Firmware

Operating software on the telephone or PBX that is stored in the device itself. The device cannot function without firmware.

Flash

Storage device (e. g. a USB memory stick) for the non-volatile storage of data within a minimum of space without permanent power supply.

G

Gateway

PC or router used as an intermediary between two networks. The Internet service provider is the gateway for direct Internet dial-up connections. If you use a router, this is the gateway in a local network.

H

Host

Component of a data processing system that manages larger application programs and data volumes and makes them available to lower-order servers and clients.

HTTP Proxy

Proxy for the HTTP protocol, over which Internet sites are called or files downloaded.

HTTPS

Hypertext Transfer Protocol Secure - communication protocol for tap-proof data transfer with encryption within the World Wide Web.

I

IMAP

Internet Message Access Protocol - protocol to download e-mails from a server, with extended functions as compared to POP3 (e-mails are stored on a server, not on the client PC, so that they cannot be lost due to a failure of the client PC).

IP Address

Unique numerical address within a TCP/IP network that is assigned to one device and ensures that data packages reach the correct recipient.

IPsec

The telephone uses the IPsec protocol to transport IP packages cryptographically secured via public networks.

IPv4 Address

IPv4 addresses comprise four numbers between 0 and 255 that are separated by a point, for example, 192.168.0.14. The network addresses are divided up into different classes (Class A to C) depending on how many computers can be located in a network.

Certain ranges are reserved for the operation of local networks:

- Class A: 10.x.x.x (for networks with up to 16.5 million PCs)
- Class B: 172.16.x.x to 172.31.x.x (for networks with up to 65534 PCs)
- Class C: 192.168.0.x to 192.168.255.x (for networks with up to 254 PCs)

These addresses have no validity on the Internet; this means that data packets with this sender type or recipient address cannot be transported on the Internet. However, they can be used in local networks without restriction. The advantage of this is that if data from a local network configured in this way comes in contact with the Internet, none of the data on the computers in the local network can leak out or be accessed externally.

ISDN

Integrated Services Digital Network) - digital network that combines the different communication services, e. g. telephony, telefax groups 2 and 3, data transmission, etc. Unlike analogue networks, ISDN uses digital transmission.

J

Jitter Buffer

Buffers RTP packages, to compensate irregular transfer rates of the Internet.

A high jitter buffer reduces short interruptions during the call. In return the delay of the RTP packages increases.

K

Keep-Alive

Data packets exchanged at regular intervals between two communication partners to check whether the connection is still alive. If the packet or the partner‘s reaction are missing, the other communication partner assumes that the connection is interrupted and takes appropriate measures (e. g. repeated connection attempt, timeout of the connection).

L

LAN

Local Area Network - connects computers over company or home networks.

LDAP

Lightweight Directory Access Protocol - enables you to query the data in a directory service (a hierarchical database) over the network.

LED

Light emitting diode - electronic device similar to a lamp and used for displays (also multi-coloured).

M

MAC Address

Media Access Control address - specific, unique hardware address specified for each individual single network card used in the whole world. This means that the network card is unique and can be controlled and detected detected by the network without any problems.The IP addresses on the TCP/IP network are always mapped to the respective MAC address.

MSN

Multiple Subscriber Numbers - multiple telephone numbers where an ISDN PTMP connection can be reached. The MSN is the part of the phone number without a local prefix.

N

NAT

Network Address Translation - permits the mapping of a specific IP address used within a network to another IP address used by another network. This function is e. g. performed by a router which connects a local area network to the Internet.

NAT Traversal

Method to establish and hold communication connections that allows IPsec-encrypted data packets to pass trough NAT transition points.

Network Prefix

Provides the net mask for the IP address and specifies how many IP addresses are released in a network range. The larger the network prefix, the fewer the number of IP addresses that are released.

Example: IP address 192.196.0.240

Network prefix	Released address range
8 bit	192.x.x.x
16 bit	192.168.x.x

24 bit	192.168.0.x
32 bit	192.168.0.240 (= Only the explicitly entered IP address is released.)

NTP

Network Time Protocol - protocol that synchronises the time on a computer or on other devices in the network with other computers or with an external clock via the Internet. An NTP server is selected to perform the time synchronisation. The time provided by the NTP server is synchronised as exactly as possible to Coordinated Universal Time (UTC).

If a local NTP server is available in a local network, it can be selected, or a public NTP server from a public list on the Internet can be used.

O

Open-Source Licence

Software licence acknowledged by the Open Source Initiative (OSI). Open-source licences are the basis of free-of-charge applications whose programming code may be modified without restrictions.

OpenVPN

Open-source software used to set up secure connections via a Virtual Private Network (VPN).

Outbound Proxy

Intermediate server that processes all VoIP requests and connections going to the provider (except registration).

P

PIN

Personal Identification Number - multi-digit secret code that has to be entered to get access to services or authorisations.

PoE

Power over Ethernet - method by which a small devices in a network, for example, VoIP telephones, receive power over an Ethernet cable. This benefit of this is that there are fewer power cables to deal with.

PoE is described in the IEEE 802.3af standard.

PTMP

Point-to-Multipoint - ISDN connection with 3 to 10 independent phone numbers (MSNs). They can be assigned to one or more devices, including PBXs.

PTP

Point-to-Point - ISDN connection with Direct Dial In option. A provider allocates a PBX base number with additional Direct Dial In numbers (DDIs), e.g., 9200–0. PBXs are usually operated on a PTP connection.

POP3

Post Office Protocol, version 3 - ASCII protocol to download e-mails from a server.

Port

A single PC can simultaneously establish multiple connections and provide multiple services for other PCs. Ports are used to differentiate these connections from parallel connections. Due to a common agreement, PCs usually provide their services on ports 1 to 1023. Outgoing connections are usually established starting at port 1024. Most services that use the standard port numbers (for example, web browsers use port 80).

Provisioning

Automatded configuration of one or more telephone(s) form a provisioning server.

Proxy Server

Acts as the interface to the Internet or between two networks. A proxy server receives queries from a computer in an Intranet, for example. It then connects to the Internet (on behalf of the computer) to forward the queries and return the (if necessary, filtered) responses. To achieve this, the HTTP proxy uses the Internet's HTTP protocol.

PPTP

Point-to-Point Tunneling Protocol - protocol used to set up VPN networks by means of data transmission via tunnels, with less complex encryption than OpenVPN.

Public Exchange

Node point on the public telecommunication network.

Q

Quality of Service

Quality of service - service of the router or switch that provides constantly high speech quality by prioritising speech data (RTP data packages).

R

Redirect Server

Supports the setup of a connection by identifying alternative addresses of a recipient in the database of the registrar and returning them to the originator of the request. The originator can then send a new request to the alternative address.

Registrar

A registrar (domain name registar) is an organisation or a company that registers Internet domains.

Router

Routers connect two separate networks. This means, for example, that you can connect the local network to another LAN or a WAN. When a PC wants to send a data packet, this packet must travel over a router. The router uses the IP address to detect the network it must send the data to. In addition to connecting to networks, routers can also execute certain control functions, such as maintaining a simple firewall. In a home network, routers are usually used to connect the local network to the Internet and to enable simultaneous Internet access for multiple users.

S

SD/SDHC/SD-XC Card

Secure, digital memory cards that use flash-type storage (non-volatile storage). Their special shape protects them from wrong insertion into the card slot. A lateral device for write protection (sliding switch) protects them from accidental deletion of data. SD cards can store up to 2 GB (SD 1.1 standard) whereas SDHC cards can store up to 32 GB (SD 2.0 standard). SC-XC cards can store from 32 GB to - theoretically - 2.048 GB (SD 3.0 standard). Information on recommended memory cards can be found in the Internet (Auerswald: **www.auerswald.de/service**, FONtevo: **support.fontevo.com**).

Server

Computer or a software that fulfils different tasks as part of the network. It provides, for example, other users (clients) in this network with certain information, data and services.

SIP

Session Initiation Protocol - network protocol which provides establishing a communication session between two or more subscribers. Via SIP only communication conditions are arranged. Other protocols such as RTP are responsible for actual data transmission.

SIP Port

Port of the local system used as the communication port for the SIP transfer.

SIP Trunking

Some VoIP providers also support a VoIP PTP connection with a Direct Dial In option. The provider allocates a PBX base number with additional Direct Dial In numbers (DDI numbers), e.g., 9200–0.

SMTP

Simple Mail Transfer Protocol - network protocol used for the secure transfer of e-mails between the PBX and external mail servers. The PBX needs an external SMTP server (outgoing mail server) to send system e-mails or forward voice mail messages and fax messages.

Under **Settings > E-mail > Outgoing e-mail server** you can enter different outgoing mail servers. If no outgoing mail server has been entered, no e-mails can be sent.

STUN

Simple Transversal of UDP over NATs - used to determine the public IP address of an Internet connection. To do this, a STUN request is sent to a STUN server, which then shares its own IP address allocated by the VoIP provider with the Internet connection.

Subnet mask

Configuring subnetworks makes it possible to connect many totally different networks located in totally different areas because each subnetwork receives its own address and can therefore be addressed by the router. A subnetwork is created when the IP address is linked with a subnet mask:

If a bit in the subnet mask is set, the corresponding bit in the IP address is considered a part of the network address. If a bit is not set in the subnet mask, the corresponding bit in the IP address is used as a part of the PC address.

The value of the subnet mask, as with IP addresses, is often given in decimal form (for example, 255.255.255.0 for IPv4 addresses).

Switch

Active network distributor that distributes data packages to a destination defined by an IP address among the different segments of a network.

System Telephone

Thanks to their integration into the system, system telefphones simplify the operation of the entire system and additionally offer numerous possibilities to use PBX functions and signalise their status visually and, in part, accustically.

T

TCP

Transmission Control Protocol - transport protocol that segments data into packets up to a specified size and reliably sends these individual data packets in the correct sequence to the recipient address. In this process, every data packet sent must be resent until it has been confirmed as arrived. In order to make sure this happens, a large amount of information is sent along with the actual payload data. Most Internet services are implemented with TCP, e.g., HTTP (WWW), SMTP/POPS (e-mail), etc.

TLS

Transport Layer Security - protocol for the encryption and secure transmission of data on the Internet. TLS is often used to protect http connections, e. g. for commercial transactions (https).

T-Net Functions

Functions available on the analogue T-Net in Germany. There are analogue comfort telephones with pre-defined function keys or menus for T-Net functions such as callback on busy, call forwarding, toggling between conversations or conference calling.

U

UDP

User Datagram Protocol) - protocoll used to send data packets over non-secure communication lines without a connection. This means that successful transmission is dependent on the application and is therefore not always guaranteed. UDP itself does not verify whether data has been transmitted successfully. When a UDP packet is sent, the sender cannot assume that the packet will indeed arrive at the recipient. This particular protocol needs only a small amount of additional information, and results in a better data throughput rate in a well-functioning network, e. g., on a LAN. UDP is used by DNS servers, for example.

Update

Installation of a new firmware version to integrate new features and to solve possible problems. Previous settings of the device remain unchanged.

Update Server

Server that provides up-to-date data, e. g. firmware files, provider profiles, etc., for downloading to a telephone.

URL

Uniform Source Locator - complete address of a resource (e. g. a website), consisting of a scheme (e. g. „http://“) and a scheme-specific part (e. g. domain „www.auerswald.de/“ and path „en/products/pbx/home-office.html...“).

V

VoIP

Voice over Internet - Internet telephony. An Internet connection (for example, DSL) is used for telephoning instead of an analogue or ISDN line. Digital voice data is sent as IP packets from one telephone to another. This functions the same way as the transmission of a webpage over the Internet.

The transmission quality and the reliability of Voice over IP depends to a great extent on the quality of the Internet connection used.

VoIP Account

Account configured with a VoIP provider who provides the necessary access data required for VoIP calls. For this purpose, you need to register your name and address with a provider via their web site. Finally, one or more phone numbers accessible from the public switched network and the Internet as well as an account with a user name and password are allocated. Most of the time, it only takes a few minutes to configure the registered connection which can then be used almost immediately.

VoIP Provider

Internet service provider offering internet telephony (VoIP, Voice over Internet Protocol).

VoIP Address

VoIP telephone number plus domain, separated by the @ character: <subscriber>@domain.

VPN

Virtual Private Network - connects remote or neighbouring networks (LAN) to the internal network using a VPN tunnel. The tunnel functions basically as a channel in which embedded data is transported from one network to the other.

W

Widget

Program window on the graphic user interface, e. g. for status information, settings , functions , etc.

Abbreviations

ARA	Auerswald Remote Access
BLF	Busy Lamp Field
CCBS	Completion of Calls to Busy Subscriber
CCNR	Completion of Calls on No Reply
CIDR	Classless Inter-Domain Routing
CLIP	Calling Line Identification Presentation
CLIR	Calling Line Identification Restriction
CNG	Comfort Noise Generation
CTI	Computer Telephony Integration
DDI	Direct Dial In
DECT	Digital Enhanced Cordless Telecommunications
DHCP	Dynamic Host Configuration Protocol
DiffServ	Differentiated Services Flag
DNS	Domain Name Service
DSCP	Differentiated Services Code Point
DSL	Digital Subscriber Line

DTMF	Dual Tone Multi Frequency
ESMTP	Enhanced SMTP
GSM	Global System for Mobile communication
HTML	Hypertext Markup Language
HTTP	Hypertext Transfer Protocol
IMAP	Internet Message Access Protocol
IP	Internet Protocol
IPsec	Internet Protocol Security
ISDN	Integrated Services Digital Network
LAN	Local Area Network
LDAP	Lightweight Directory Access Protocol
LED	Light Emitting Diode
MAC	Media Access Control
MSN	Multiple Subscriber Number
MWI	Message Waiting Indication
NAT	Network Address Translation
NTP	Network Time Protocol
PBX	Private Branch Exchange
PDF	Portable Document Format

PIN	Personal Identification Number
PoE	Power over Ethernet
POP3	Post Office Protocol, version 3
PPTP	Point-to-Point Tunneling Protocol
PTMP	Point-to-Multipoint
PTP	Point-to-Point
RJ	Registered Jack
RTP	Real-Time Transport Protocol
SC	Short-Code (Dialling Number)
Scr.	Subscriber
SD	Secure Digital
SDHC	Secure Digital High Capacity
SIP	Session Initiation Protocol
SIPS	Session Initiation Protocol Secure
SMTP	Simple Mail Transfer Protocol
SRTP	Secure Real-Time Transport Protocol
SSL	Secure Sockets Layer (obsolete, see TLS
STUN	Simple Transversal of UDP over NATs
TAM	Telephone Answering Machine

TCP	Transmission Control Protocol
TLS	Transport Layer Security
UDP	User Datagram Protocol
URL	Uniform Resource Locator
USB	Universal Serial Bus
VLAN	Virtual Local Area Network
VMB	Voice Mailbox
VMF	Voice Mail and Fax
VoIP	Voice over Internet Protocol
VPN	Virtual Private Network
XML	Extensible Markup Language

Index

A

abbreviations 671

about this instruction 20

account 643, 669
- area and country code 477, 487
- authentication 475, 486
- connection type 476, 487
- deleting 469, 470
- new 469, 470
- phone numbers 479, 490
- register 470
- use 471, 483
- voice mailbox 481, 492

accounts 468

Action URL 576, 580, 594, 596, 597, 598

activation code 638, 639

Alert-info 444, 465

Android keyboard
- operation 65

announcement before answering 270, 271
- function key 272

announcements answering machine 326
changing name 326
deleting 307, 326
importing 307
importing language files 306, 307
recording 325

announcements voice mailbox 406
deleting 408
own announcement 407
recording 406

answering machine 296
adopting call 319
call recording 296
incoming call, forwarding 318
language 306, 316
language templates 336, 342
remote access 296
voice memo 355

answering machine list 346
deleting recordings 352
forwarding recordings via e-mail 350
function key 353
initiating call 351
listening to recordings 349

app account 584

apps 42, 52, 545
- adding 43
- answering machine 58
- app provisioning 58
- browser 58
- calculator 60
- calendar 59
- call log 60
- clock 60
- COMfortel data synchronisation 58
- contacts 59
- device administrators 579
- downloads 58
- e-mail 58
- function keys 59
- functions 58
- gallery 59
- instant messaging 59
- IP camera 59
- moving or deleting 44
- music 59
- settings 58
- telephony 53

ARA server 643

ARA server, configuring remotely 632

archive voice mailbox 416, 417

area code 477, 487

auromatic brightness 534

authentication
- authentication type 340, 343
- password 340, 344

automatic bandwidth amplification 189
- function key 190

automatic operation voice mailbox/fax box 376
- function key 376

automatic playback
- answering machine 298, 308
- voice mailbox/fax box 374, 375

automatic saving, Configuration Manager 83, 85

automatic screen lock 578

B

back key 33

backup 601, 602, 605
saving on telephone 602, 606

blacklist 261, 262
function key 262

BLF 477, 488, 644

Bluetooth 520
Dongle 644
function key 521

boss/secretary function 191, 193
boss key on secretary telephone 195
call procedure 191
secretary key on boss telephone 193

bottom side, overview 39

brightness sensor 35

brightness, display 534, 538, 541

Browser 644

business card 53

C

cache 644

call 114
adopting, answering machine 319
DTMF signals 115
ending 116
muting 116

call acceptance
call acceptance of group calls 302, 309
maximum recording time 302, 311
maximum recording time for door calls 303, 312
setting call acceptance time 302, 309

call acceptance rules 302, 303, 309, 310
function key 323

call deflection 645

call differentiation 523

call forwarding (call deflection) 245
external number 255
function key deactivating all 248
function key external number 258
function key for subscribers in PBX 253
subscriber 246
subscribers in PBX 251

call forwarding call deflection
function key subscriber 249

call information
answering machine 298, 308
voice mailbox/fax box 374, 375

call log 164, 165, 166
call logging 167, 169
E-mail notification 167, 168

call logging 167, 169

call recording 296, 327
announcement 299, 300, 313
automatically 299, 312
automatically, function key 329
manually, function key 328

call waiting 184
function key 185

call waiting calls 101
accepting 103
call waiting tone, off 104
forwarding 103
rejecting 102

call, initiating
from answering machine list 351
from call log 165
from caller list 172
from message list, voice mailbox 401
from redial list 162

callback, initiating
on no reply 112
when line is busy 110

caller list 171
deleting entries 173
initiating call 172

calling line identity restriction 108, 242
function key 243

certificate 645

certificates, importing from data storage device 582

check box 68

client 645

CLIP no screening 645

codec 434, 455, 646

conference call 128
- connecting two call partners 130
- ending completely 131
- ending with one call partner 130
- toggling between conversations 129

Configuration Manager 71, 85
- deleting password 85
- editing password 84
- entry, list and selection fields 78
- legibility and presentation 82
- logging out 77
- navigation 76
- opening 71
- password 84, 86
- saving automatically 83, 85
- setting language 83
- standard VoIP telephone operation 75
- symbols 81
- table entries 79

Configuration Manager, opening in system telephone operation
- as administrator 72
- as sub-administrator 73
- as user 74

configuration switchover 225
function key 226
manually 225
configuration via SIP messages 619, 625
configuration-dependent idle state 536, 541
connection type 476, 487
connections, overview 39
contact/telephone book key 30
contacts 141
adopting phone number from dial preparation 157
announcement options 149
assigning ringtone 149
creating 144
deleting 147
dialling from contact list 143
displaying in contact list 154
displaying options 156
favourites 154
function key 155
hiding 152
importing/exporting 159
linking with IP camera 151
merging/editing 146
phone number, adopting from a list 158
phone number, adopting to other dialogues 159
searching/displaying 142
sharing 148
contacts and phone number lists 140
control by external app 264
function key 264

control, IP camera 560, 564
country code 477, 487

D

date 587
automatically 588, 589, 590
format 589, 591
time zone 588, 590

DDI 646

DECT 646

default account 473
taking over from PBX 473, 485

default notification 529

delete key 33

deputy function 381
function key 382

determined function keys 29

device administrators 579

DHCP 496, 507, 647

dial preparation 107, 647
adopting phone number 157

DiffServ 504, 513, 647

directional pad 33

display 534
- automatic brightness 534
- brightness 534, 538, 541
- calibrating 543
- configuration-dependet idle state 536, 541
- display LED 535, 542
- display profile 540
- fax box signalling 535, 542
- font size 540
- idle state 536, 539
- message key LED 34
- message LED 535, 542
- power save mode 537, 543
- registration status VoIP subscriber 536, 542
- screen candy 540
- sensitivity, proximity sensor 541
- signalling of fax boxes 376
- touch function 36
- wallpaper 538

display elements 42

display-LED 34

DNS 648

Domain 648

dongle 644

do-not-disturb 186
- function key 187

door functions 274
function key 277
opening door at door call 275
opening door at door knock 276
downdate 648
downgrading, telephone 607
driver 648
DSL 648
DTMF 433, 456
signals 115

E

e-mail 358, 364
account 359, 361, 363
forwarding 167, 168
language template 336, 342
reading and replying 364
writing and sending 365

e-mail settings
address of e-mail sender 339, 343
authentication type 340, 343
e-mails in HTML format 341, 344
encryption 341, 345
IP address outgoing mail server 339, 343
password for authentication 340, 344
port outgoing mail server 340, 343
recipient address 341, 345
test e-mail 341, 345

emergency numbers 547

encryption 341, 345

end device 649

entry field 68

Ethernet 496, 649
DHCP 496, 507
OpenVPN 501, 514

evaluation of incoming SIP messages 438, 460
Exchange ActiveSync 649
exchange line 650
extending the telephone functionality 637
extension 650
external line transfer 181
function key 182

F

factory settings 601, 604, 606

favourites 154

fax box 371, 372
- archive 416
- message list 393
- notification via e-mail 386
- readiness 378
- signalling 376, 535, 542

file manager 552

Fingerprint 650

firewall 650

firmware 651

firmware, distributing 614, 628

flash 651

follow-me 197
- function key 198

font size 540

forwarding messages via e-mail, answering machine 305, 313, 314, 321

frequency, image IP camera 557, 562

full screen mode 558, 562

function keys 62
- programmable 31
- second level 31

functions 179

Funktionstasten 573

G

gain headset microphone 530

gateway 651

group function 203
- function key 206
- logging out of all groups 207
- logging telephone in/out 205

group state, function key 209

H

hands-free calling 132, 133

headset call 137
- ending 137
- ending listen-in on receiver 138
- initiating listen-in on receiver 138

headset operation 212
- function key 213

headset ringer 526, 530

help 88
- navigating 88, 89, 90, 91
- printing 93
- searching 91
- symbols 93

home key 33

home screen 42
- overview 35

hook key 30

Host 652

HTTP proxy 503, 512, 652

HTTPS 652

I

idle state 536, 539
function key 543
off 540

image, IP camera
centering 558, 562
frequency 557, 562
scaling 557, 562

IMAP 653

incoming calls
accepting 98
call types 96
forwarding 99
holding 99
rejecting 98

increased security, IP camera 558, 563

instant messaging 358, 367
configuring app 367
reading and replying 368
writing and sending 369

InterCom
permission 478, 489
type 478, 490

InterCom announcement 215, 216
function key 217

InterCom hands-free calling 215, 220
function key 221
process 220

InterCom permission 223
function key 224
IP address 653
IP address, outgoing mail server 339, 343
IP blacklist 505, 518
deleting 506, 520
IP camera 554, 555, 556
control 560, 564
deleting 555, 556
full screen mode 558, 562
function key 565
image centering 558, 562
image scaling 557, 562
increased security 558, 563
linking with contact 151
motion detection 560, 565
password 559, 564
snapshot 559, 563
IP whitelist 505, 518
configuring 506, 519
deleting 506, 520
IPsec 653
ISDN 654

J

jitter buffer 435, 457, 654

K

keep-alive 655
keypad 28
keypad sequences 437, 459
keys 22

L

LAN 655

language setting
- Configuration Manager 83
- telephone 583

language template e-mail 336, 337, 338, 342
- exporting 338
- importing 337

LDAP 655

LDAP client 174
- adding account 174
- changing permission level 176
- deleting an account 177
- synchronising account 177

LED 22, 656
- display LED 535, 542
- message LED 535, 542
- signalling of fax boxes 376
- smessage key LED 34

legibility 82

listen-in on receiver, headset call
- ending 138
- initiating 138

listen-in, answering machine 299, 309
lists 69
local answering machine 295
Local Area Network 655
location 549, 550
logging out of all groups, function key 208
logo, importing, answering machine 338
loudspeaker key 29
loudspeaker listening 135, 136

M

MAC address 656

macro 228
function key 229

maximun gain handset micro 530

Mehrfrequenzwahlverfahren 649

menu key 31

message forwarding 383
function key 384

message key 30

message list, voice mailbox/fax box 393
deleting messages 403
distributing messages 399
initiating call 401
listening to messages 398
opening fax box 396
opening voice mailbox 394
opening, function key 404

microphone key 29

minus key 30

motion detection, IP camera 560, 565

MSN 656

MWV 649

N

NAT 657

NAT keep alive 428, 454

NAT traversal 657
RTP 427, 453
SIP 426, 452

navigation, Configuration Manager 76

network data stream 640

network interface type 424, 446

network prefix 657

notification via e-mail 386
function key 386

NTP 658

number presentation (outgoing) 440, 462

O

online shop 638
activation code 638, 639
voucher code 638, 639

Open-Source-Lizenz 658

OpenVPN 501, 514, 659
deleting certificate 502, 515
deleting configuration file 502
importing certificate 502
importing configuration file 502
open/view log file 503, 515

operation 62

outbound proxy 425, 448, 659

outgoing calls 105
callback when line is busy 110
dialling phone number 106
external call with CLIR 108
initiating callback on no reply 112
phone number with dial preparation 107
priority call 113

outgoing mail server
IP address 339, 343
port, answering machine 340, 343

P

password
- Configuration Manager 84, 86
- deleting, Configuration Manager 85
- editing, Configuration Manager 84
- IP camera 559, 564
- making visible 579

passwort/PIN, screen lock 578

PBX
- certificate 432
- codec 434, 455
- creating 421, 422
- deleting 422
- domain 423, 446
- DTMF 433, 456
- exchange line access number 437, 459
- host name 432, 451
- importing profiles 421
- jitter buffer 435, 457
- server type 431, 450
- SRTP 435, 457
- type 423
- URL structure 432, 451

permissions 567
- functions 569, 572
- settings 568, 570

phone number
adopting from dial preparation ... 157
adopting from phone number list ... 158
adopting to other dialogues ... 159
dialling ... 106
entering ... 479, 490

pick-up ... 233
automatically ... 574, 575
during call ... 234
function key ... 235

PIN ... 659

plus key ... 29

PoE (Power over Ethernet) ... 659

POP3 ... 660

port ... 660

power dialling ... 237, 238

power save mode ... 537, 543

PPTP ... 661

presentation ... 82

priority call ... 113
initiating ... 110

provider
certificate 432
codec 434, 455
creating 421, 422
deleting 422
domain 423, 446
DTMF 433, 456
exchange line access number 437, 459
host name 432, 451
importing profiles 421
jitterbuffer 435, 457
server type 431, 450
SRTP 435, 457
type 423
URL structure 432, 451

providers and PBXs 419

provisioning 609, 661
automatic 617, 622
configuration via SIP messages 619, 625
DHCP data 618, 622
from PBX search 618, 623
provisioning server URL 619, 623
schedule 612, 621
test 623
via redirect server 618, 622

proximity sensor 35
sensitivity 541

proxy server 661
PTP connection 660
public exchange 661
public exchange subscriber numbers 436, 458

Q

Quality of Service 662

query call 117
- changing active call partner 120
- connecting both communication partners 121
- ending 118
- ending one call 120

query key 30

quick remote access number 301, 316

R

readiness answering machine 298, 308
function key 320
readiness voice mailbox/fax box 378
function key 379
redial list 161, 162
redial list key 30
redirect server 662
registrar 424, 447, 662
registration status VoIP subscriber 536, 542
relays 239
function key 240
remote access answering machine 296, 300, 314, 331
controlling 300, 315
entering PIN 301, 315
entering quick remote access number 301, 316
function key 334
performing 332
remote access voice mailbox 388
function key 391
remote configuration 632
via ARA server 632

resetting to factory settings 604, 606

restarting, telephone 636

ringtone 523, 532
- by call type 527, 530
- default 526
- function key 532
- group-dependent 527, 531
- telephone 528

router 663

RTP port 504, 513

S

schedule, update and provisioning 612, 621

screen candy 540

screen keyboard, operation 65

screen lock
- off 578
- passwort/PIN 578

SD/SDHC card 663

security 576
- automatic screen lock 578
- device administrators 579
- importing certificates from data storage device 582
- passwort/PIN, screen lock 578
- screen lock off 578
- trusted credentials 581

selection field 68

separator tone
- answering machine 298, 309
- voice mailbox/fax box 374, 375

server 664

server type 431, 450

service and maintenance 600

service data 640
- backup 602

setup assistant 53

shared line, function key 285

shutting down, telephone 636

silence on user proximity 526, 531

SIP 664
- SIP port 429, 448, 664
- SIP session timer 430, 449
- SIP tranport protocol 432, 449
- SIP trunking 664

SIPS 431, 451

slider 68

SMTP 665

SMTP server (outgoing mail server) 665

snapshot, IP camera 559, 563

sockets, overview 39

sounds 523

speed dialling 290
- automatic dialling 573, 575
- function key 292
- registration status 291

SRTP 435, 457

status bar 48

status info 51

storage 634
- erasing data storage device 635
- removing/providing data storage device 634

STUN 665

STUN server 429, 454

subnet mask 665

switch 666

symbols
Configuration Manager 81

system telephone 472, 484, 666

T

targeted exchange line access 200
function key 201

TCP 666

telefax, sending as e-mail 402

telephone
downgrading 607
information 592
overview 22
shutting down and restarting 636

telephone line 266
function key 266

telephony app 53

time 587
automatically 588, 589, 590
time zone 588, 590

TLS 667

T-Net functions 667

toggle button 68

touch calibration 543

touch function 36
keys 45

touch sounds 529

transferring 122
- internal 3rd subscriber 126
- placing call partner in waiting loop 125
- with announcement 123
- without announcement 124

trusted credentials 581

U

uaCSTA 596, 597

UDP 667

update 609, 668
- automatically via update server 613, 625
- manually 611, 620
- restoring firmware 630
- schedule 612, 621
- test 616, 627
- update server URL 616, 626

update server 668

URL 668

use of an account, function key 494

V

VLAN 498, 499, 509, 510

VLAN gateway 500, 511

voice mailbox 371, 372
- announcements 406
- archive 416
- automatic playback 374, 375
- call information 298, 308
- deputy function 381
- message forwarding 383
- message list 393
- notification via e-mail 386
- readiness 378
- remote access 388
- separator tone 374, 375
- SIP account 481, 492
- voice memo 410

voice memo answering machine 355
- function key 357
- listening to 356
- recording 355

voice memo voice mailbox 410
- deleting 413
- distributing 412
- function key 413
- listening to 411
- recording 410

VoIP 668
- VoIP address 669

VoIP account 669
VoIP provider 669
volumes 525, 528
voucher code 638, 639
VPN 670
adding profile 515
connecting server to profile 517
deleting/editing profile 518
disconnecting 517

W

waiting field 280, 281
tone 532
waiting field reception 284
function key 288
wallpaper 538
widget 670
widgets 42
adding 43
moving or deleting 44
status info 51