COMfortel D-400

Advanced Information

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Functions and applications

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Information about the section

This section describes how to set up and use the functions on your phone.

Action URL

Action URLs are HTTP GET requests which are sent either to a PC, PBX or server, or vice versa, from your phone. In the latter case, the phone is the HTTP server. Action URLs that are **sent to the phone** trigger actions (such as starting a call). Action URLs that are **sent by the phone** report changes in the quantity and condition of the calls to the device (e.g. a newly received call).

For more help and examples about action URLs, see the Auerswald DokuWiki.

Further help in the Auerswald DokuWiki

Requirement for use

- Web interface is open, user is logged on to it

  or

- valid token (generated using the phone's web interface)

Configuration

Web interface:

- **Access**

Details about the settings are in Access

Phone:

- **Access**

Details about the settings are in Access

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Process

1. In your browser address line, enter the required command.

   The table below displays the possible actions and the corresponding http commands.

   `https://[phoneIP]/api/v1/exec/command?action=*`

`*help`	Displays help texts for the function entered.
`*resume`	Resumes the call
`*log`	Adds an entry to the telephone log.
`*accept`	Accepts a call
`*terminate`	Ends a call
`*call`	Starts a call
`*show`	Displays a brief message in the phone display.
`*hold`	Puts the call on hold
`*transfer`	Connects to a number
`*join`	Connects two existing calls
`*conference`	Conference call

`*dtmf`	DTMF

2. If a token is used for authentication, the token must be sent in the request header.
3. Press Enter to confirm.

   The action you want is carried out.

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Anonymous call

The **Anonymous call** function enables the caller to make a call without revealing their subscriber number to the person being called. They can choose to do this or not, for each individual call.

Note: 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 CLIR (case-by-case restriction of calling line identification) service feature has been requested from, and activated by, the network provider.

Requirement for use

- The CLIR (suppression of subscriber number display per call) service feature has been enabled by the network operator.

Configuration

Web interface:

- **Telephony** > **Anonymous Call**

Details about the settings are in Outgoing calls

Phone:

- **Settings** > **Telephony** > **Anonymous Call**

Details about the settings are in Anonymous call

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Note: When you configure an identity, ensure that you select the same CLIR (number presentation suppression) type as is set on the PBX/at the provider.

Details about the settings are in Options for experts

Details about the settings are in Function codes

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 Auerswald's 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.

Configuration

Directly on the phone:

- **Settings** > **Apps**

Details about the settings are in Apps

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Automatic answer

The **Automatic answer** function defines the situations in which the telephone automatically accepts calls.

A typical example is dialling via CTI/TAPI. Here, call centre agents are automatically connected with the call you have initiated on the PC. There is no additional confirmation on the telephone.

Configuration

Web interface:

- **Telephony** > **Dialled calls** > **Automatic Answer**

Details about the settings are in Automatic Answer

Phone:

- **Settings** > **Telephony** > **Automatic Answer**

Details about the settings are in Telephony

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Automatic Start of Call

When you finish typing a subscriber number, the call starts automatically in the receiver, headset or in hands-free calling mode, after the predefined time, depending on selected speech channel. You do not need to do anything else to start the call, such as pick up the receiver or press OK [OK].

Configuration

Web interface:

- **Telephony** > **Outgoing calls** > **Automatic Start of Call**

Details about the settings are in Outgoing calls

Phone:

- **Settings** > **Telephony** > **Automatic Start of Call**

Details about the settings are in Telephony

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Wallpaper

You can change the normal wallpaper used on the telephone's home screen. This enables you to customise it to match your company's corporate design or your own preferences.

There are the following ways to change the home screen:

- Using provisioning
  - Provide the image in the form of a Base64 string
  - Provide a link to an image file on a web server
- Set an image in the Android Gallery as the wallpaper for the home screen

If an image does not have the set dimensions, it is scaled and trimmed.

Requirement for use

- Image files with file format .png or .jpg
- Max. file size 5 MB

Configuration

Phone:

- Gallery app > required image > ⋮ > **Set picture as**

Details about the settings are in Gallery

Provisioning:

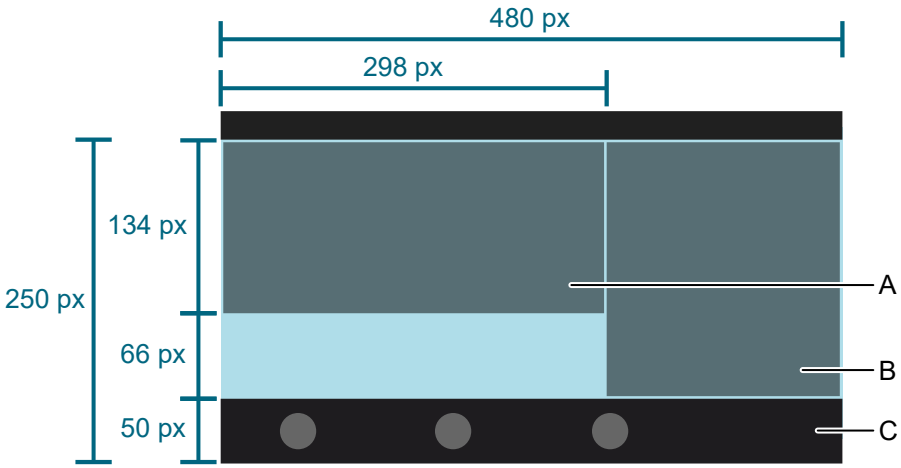
You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Display screen layout

Screen size:

- 480 x 250 px
- 130 dpi

The following pixel values are intended as a guide when creating personalised wallpapers.

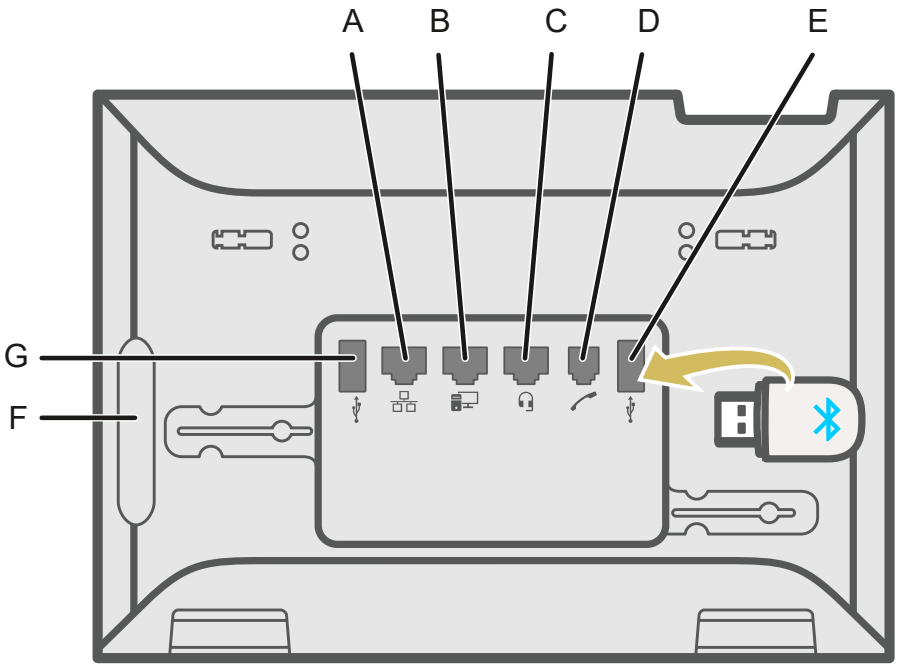


A. Status widget
B. Functions widget
C. Soft key bar: Covers the wallpaper image at a height of 50 px.

Bluetooth

A Bluetooth headset can be connected using wireless Bluetooth technology. The maximum range in the Bluetooth network is 10 m.

Connection



A. Network port
B. Direct PC connection via network cable
C. Headset socket
D. Receiver socket
E. USB port for a COMfortel D-Wireless (EZC-5200BS) dongle.

F. Rubber cover: to connect a COMfortel D-XT20 or COMfortel D-XT20i key extension module, remove the cover and attach it to the extension module.

G. USB port, exclusively for connecting a COMfortel D-XT20 or COMfortel D-XT20i key extension module.

Configuration

Phone:

- **Settings** > **Bluetooth**

Details about the settings are in Bluetooth

Note: The Bluetooth menu option is displayed the first time you plug the COMfortel D-Wireless dongle (EZC-5200BS) in the device and is not removed if you unplug the COMfortel D-Wireless dongle (EZC-5200BS).

Important: The procedure described below ensures that all components react correctly:

- Plug in the COMfortel D-Wireless dongle (EZC-5200BS) when the device has no power supplied to it

  or

- Reboot after plugging in the COMfortel D-Wireless dongle (EZC-5200BS) when the device is operating.

Process

1. Plug the COMfortel D-Wireless Bluetooth dongle (EZC-5200BS) in the USB port provided for that purpose.
2. The following option is added to the menu: **Settings** > **Bluetooth**.

3. If you select the Bluetooth function, a list of all accessible Bluetooth devices is displayed.
4. Select the device to which a connection is to be set up.
5. When the connection has been established, the selected device is added to the list of paired devices.
6. To close a connection, select the paired device in the list and then select **OK** at the prompt to confirm.

Call

You can use the phone to make internal (on the PBX) and external calls.

Information about a Call

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

DTMF signals

The selected numbers and characters are displayed in the screen for some seconds and you can hear the associated sound.

Description of the operation under Call

Accepting a call

A call that has been taken on a different internal phone can be picked up, provided that call pick-up has been permitted on the PBX for the subscriber that is being called.

Description of the operation under Pick-Up

This function is useful when dealing with answering machines, for example.

Description of the operation under Call

Ending a call

When your call partner ends the call, your phone goes into its idle state. If you hang up the receiver, you will hear the busy signal through the base unit loudspeaker if the receiver has been hung up incorrectly.

Note: If you would like to end the current call, and then immediately make a new call, Press the **End** soft key and then start dial the next number.

Description of the operation under Call

Call Completion

Call completion can be used to monitor a busy number.

Requirement for use

- Both devices are connected to the same PBX
- The PBX supports SIP Subscribe (BLF)

Configuration

Web interface:

- **telephony** > **Call signalling** > **Call Completion**

Details about the settings are in Call signalling

Phone:

- **Preferences** > **telephony** > **Call Completion**

Details about the settings are in Telephony

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Process

1. You call a subscriber and hear the busy tone.
2. Press the appropriate soft key to activate the automatic callback.
3. A notification is displayed as soon as the called number is no longer busy.

4. Confirm the notification to call the subscriber, who is now free.
5. The callback process is then deleted in the PBX.

Call forwarding

General
Immediately
On busy
On no reply

General

When call forwarding is used, internal and external calls to a single phone can be rerouted to other internal phones or external connections. This enables calls that arrive on this phone to be taken on another phone. Call forwarding ensures that the relevant subscriber can always be reached using their own phone number, even when they cannot take the call on their own phone.

You can make the following settings:

- Type of call forwarding (Immediately, On busy, By time)
- Call forwarding destination
- Waiting time before CF

Immediately

Is **Call forwarding immediately** is configured on the phone, the phone does not ring when there is an incoming call. The call is forwarded to the entered call forwarding destination. The call can be taken there.

Configuration

Web interface:

- **Telephony** > **Call forwarding** > **Immediately**

Details about the settings are in Call forwarding

Phone:

- **Settings** > **Telephony** > **Call forwarding** > **Immediately**

Details about the settings are in Telephony

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

On busy

If **Call forwarding on busy** is configured on the phone, another incoming call during an active call is not signalled. The call is forwarded to the entered call forwarding destination. Even if call waiting (with or without call waiting tone) is configured on the phone, another incoming call during an active call is not signalled.

Configuration

Web interface:

- **Telephony** > **Call forwarding** > **On busy**

Details about the settings are in Call forwarding

Phone:

- **Settings** > **Telephony** > **Call forwarding** > **On busy**

Details about the settings are in Telephony

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

On no reply

If **Call forwarding On no reply** is configured on the phone, an incoming call that is not taken within the set signalling time is forwarded to the entered call forwarding destination.

Configuration

Web interface:

- **Telephony** > **Call forwarding** > **On no reply**

Details about the settings are in Call forwarding

Phone:

- **Settings** > **Telephony** > **Call forwarding** > **On no reply**

Details about the settings are in Telephony

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Call bindings

Use call bindings to configure commands that are called directly from a call. For example, a call binding can be used to open a door or switch on a light. Two soft keys can be configured here.

Configuration

Web interface:

- **telephony** > **Call bindings**

Details about the settings are in Call bindings

Phone:

- **Preferences** > **telephony** > **Call bindings**

Details about the settings are in Telephony

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Call type

During operation on a PBX:

- External call
- Internal call
- Group calling (a call made to a specific group)
- External recall
- Internal recall

Call waiting

Call waiting signals incoming calls during a call.

A call is signalled by

- a tone
- a message on the screen

Requirements for use

- If only one identity is set on the phone, call waiting must be switched on, on the PBX, or enabled by the provider.
- Alternatively, you can set up several identities on the phone.

Further help under Identities

Configuration

Web interface:

- **Telephony** > **Call signalling** > **Call waiting**

Details about the settings are in Call signalling

Phone:

- **Settings** > **Telephony** > **Call waiting/Call waiting tone**

Details about the settings are in Telephony

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Process

1. During a conversation, a call waiting call is signalled.

   If the audible indication is switched, you hear a tone. Otherwise, you only see a message on the screen. The call waiting caller hears the ringing tone.
2. You can do one of the following:
   - Reject the call waiting call.

     The call waiting caller hears the busy signal.
   - You take the call waiting call.

     You are then connected with the call waiting call. The previous call partner is held.
   - You disconnect the current call by hanging up.

     Your phone rings. You can accept the call as usual.
   - You forward the call waiting call.

     The call waiting caller also hears the ringing tone until the called person lifts their handset. You are now connected to the first call partner.

Caller list

Overview: All call lists
Redial List
Missed Calls

Overview: All call lists

Conversations (whether incoming, outgoing or missed) are stored in the caller list, with the call partner's subscriber number and the conversation's clock date and time.

A maximum of 100 subscriber numbers can be saved. If more than 100 calls from different subscriber numbers come in, the oldest entry is overwritten.

Note: If several (incoming, outgoing or missed) calls with the same subscriber number occur one after the other, they are grouped and displayed as a single call.

Redial List

The last 50 subscriber numbers dialled are saved in the redial list. The subscriber numbers are saved with the date and time of dial (or, for multiple dial attempts, the date/time of the last attempt).

Accessing the redial list

- Press the Redial list button

  or

- > List **OUTGOING**

Calling from the redial list

- Pick up the receiver

  or

- OK

  or

- Headset

  or

- Loudspeaker

  or

- Tapping on an entry

Deleting Entries from the Redial List

- Individual entry: Clear

  or

- ˅ open list > ✕ **Remove from list**

  or

- Entire list: Clear ⌫ (approx. 2 seconds)

Missed Calls

The "Only missed calls" list contains the last 50 missed subscriber numbers. The subscriber numbers are saved with the date and time of dial (or, for multiple dial attempts, the date/time of the last attempt).

Accessing the List of Missed Calls

- Message

  or

- > List **Missed**

Calling from the List of Missed Calls

- Pick up the receiver

  or

- OK

  or

- Headset

  or

- Loudspeaker

  or

- Touch entry

Deleting Entries from the List of Missed Calls

- Individual entry: Clear

  or

- ˅ open list > ✕ **Remove from list**

  or

- Entire list: Clear ⌫ (approx. 2 seconds)

Note: You cannot use the Message button to display seen missed calls if the screen has been set to Disabled in the **Display and LED** > **Seen missed calls** menu option.

Camera

The phone supports IP cameras which send single images in *.jpg file format directly via a static IP address/URL.

The image data must comply with these specifications:

- Max. file size 5 MB
- An image must not exceed the maximum size of 4 megapixels. No maximum X- or Y-dimension is set.

It does not support IP cameras that are embedded in websites, dynamic IP addresses/URLs or streaming formats.

Call binding is used to set up connections between the partner and the camera, e.g. to connect a door call with a camera.

Further help under Call bindings

Requirement for use

- You need to know the URL, user name and password of the camera to be connected

Configuration

Web interface:

- **IP camera**

Details about the settings are in IP camera

Phone:

- **Cameras**

Details about the settings are in Camera

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Central caller list

"Central caller list" is a PBX COMtrexx function.

The following data for inbound and dialled calls is saved in the central caller list on the PBX:

- Name (Last name, First name) if known in the central caller list
- Phone number
- Identity (user: local phone number, groups: local group name)
- Date
- Time
- Conversation duration

The PBX stores up to 50 entries per user or group.

The PBX automatically updates this list of stored calls in the user's telephone.

The entries can be displayed in a sorted sequence (inbound, missed, all calls) in the telephone.

If this function was not enabled (or temporarily disabled) for the user, none of the calls made in this time period are saved in the list. They are not displayed on the telephone when the function is enabled again.

If this function is disabled, the telephone's local caller list is displayed. If this function is enabled, the local caller list is replaced by the central list, but is not deleted.

If the telephone is not registered when it receives an incoming call, or if an update is being performed, the list in the telephone is updated when the connection is restored.

If a user who is authorised to use the Roaming User function changes telephone, either the local caller list entries or the central caller list entries are displayed on the new telephone (if this function is enabled).

Further help under Roaming User

Requirement for use

The function is enabled in the PBX.

Certificates

External connections are encrypted to prevent listening in. The processes used to set up and shut down a connection, and signalling, are all encrypted by SIPS.

Configuration

Web interface:

- **Identities** > **Options for experts** > **SIPS**
- **Identities** > **Options for experts** > **Certificate**
- **Identities** > **Options for experts** > **Check hostname**

Details about the settings are in Options for experts

Phone:

- **Settings** > **Identities** > **Security** > **SIPS**
- **Settings** > **Identities** > **Security** > **Certificate**
- **Settings** > **Identities** > **Security** > **Check hostname**

Details about the settings are in Security

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Codecs

A codec is used to code and decode data or signals. The purpose of codecs is to reduce the amount of data to be transferred. Different codecs have different characteristics. Using them, the bandwidth, voice quality or compression are synchronised between the VoIP provider/PBX and telephone. The codec used has a direct effect on call quality over VoIP.

Configuration

Web interface:

- **Identities** > **Codecs**

Details about the settings are in Codecs

Phone:

- **Settings** > **Identities**> **Options for experts** > **Audio**

Details about the settings are in Audio

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Conference calls

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

All the options listed above are for a conference call that you have initiated yourself.

Description of the operation under Conference call

Splitting a call

During a conference call, you can talk to one of the two subscribers in turn, and put the other subscriber on hold in the background. You do not have to end the conference call, to do so.

Connecting the other two conference call partners to each other

If you would like to leave a conference call, but the conference call partners would like to continue talking with each other, you can connect the two parties with each other.

Note: To enable you to connect two external subscribers with each other, **Transfer of external calls to external** authorisation must be granted on the PBX.

Splitting a conference call

The conference call is cancelled. One subscriber is put on hold and there is an active connection with the other subscriber. You can change between holding a call and an active call.

Holding a conference call and initiating an additional call

The entire conference call is held. The conference call partner hears music on hold. When the call ends, the conference call can be continued.

Ending a call with a conference call partner

You can end the call with a specific conference call subscriber and then keep talking to the remaining subscribers. This also applies if one of the conference call partners hangs up.

Ending a conference call completely

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

Contacts

Use to display saved subscriber numbers with names.

If a subscriber number associated with a contact is transmitted during a call, the assigned name will be displayed (instead of the subscriber number).

Additional subscriber numbers and information can be saved for each contact.

In addition, the internal subscriber numbers (subscribers, groups, emergency call) are displayed.

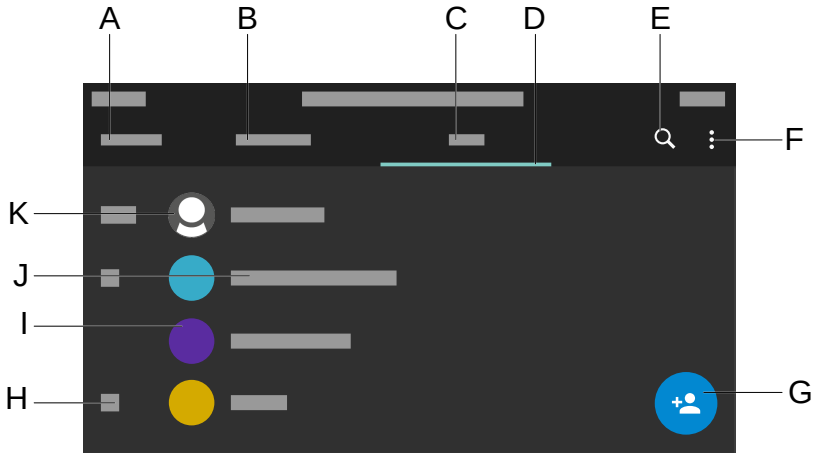
All contacts are displayed in alphabetical order in the contact list.

Contacts to whom calls are made frequently can also be displayed in the Favorites list.

Contacts can be saved using backup.

Further help under Data Backup

Contacts overview



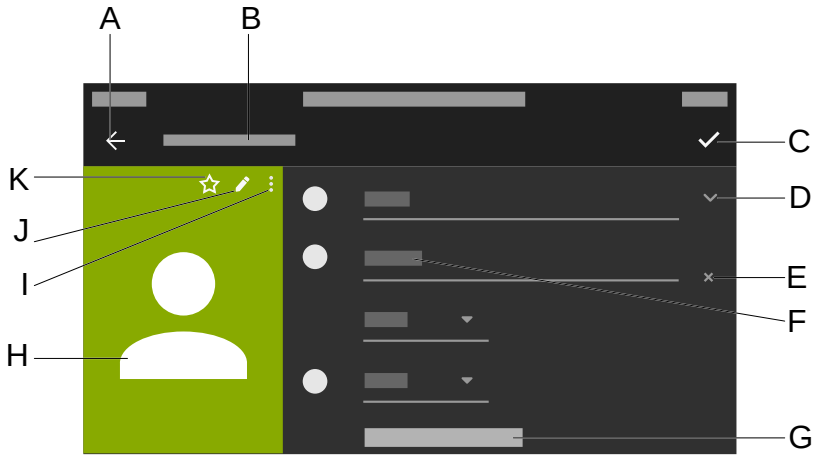
A. Title of the current application: **Contacts**
B. **Favourites**: Displays the contacts marked with a star.
C. **All**: Displays all saved contacts.
D. Displays the currently active list.
E. Displays the search window.
F. Displays more options.
G. Opens the **Add Contact** menu.
H. Alphabetical register.
I. Contact profile consisting of a coloured circle and abbreviated name or contact photo, if selected.
J. Displays the saved name.
K. ICH contact, always in 1st place.

Note: If the **LDAP** function is activated, the **LDAP folder** is displayed below the list of contacts that have been created locally. Special features of this service:

- An alphabetic register is not displayed.
- The number of displayed contacts differs according to the **LDAP** > **Max LDAP contacts** setting.
- You cannot delete or edit LDAP contacts, or mark them as a favourite.
- Calls the contact photos stored on the LDAP server and displays them in the corresponding contact profile.

Note: The contact photos are called every time a call is made. There may be a slight delay in displaying them.

Edit Contact



A. Jumps to the **Contacts** menu.

B. Title of the current application: **Add Contact**.
C. Saves all the entries for the contact.
D. Displays options for the entries that have been made.
E. Removes entries that have been made.
F. Enables you to fill in the field using the keypad or screen keyboard.
G. **Other fields**
H. Profile of the contact you have created.

Note: Options I, J and K are only displayed for an existing contact, not for a contact that has just been created.

I. Displays the **Delete** option.
J. Enables you to edit an existing contact.
K. Marks the selected contact as a Favourite.

Note: LDAP contacts look different from locally created contacts:

- The background colour of an LDAP contact profile is uniformly grey.
- The **Delete**, **Edit** or **Mark as favourite** options are not available.
- Click to copy an LDAP contact and add it to the list of locally created contacts.

CTI

CTI (Computer Telephony Integration) is a communication solution with which the phone can be controlled from a PC.

Coupling the phone and PC enables additional functions to be used. These improve the efficiency of communications in a company and ensure improved exchange of information.

With it, for example, contacts can be selected from a database and called directly by clicking with the mouse. Missed calls are displayed directly on the PC, and a recall can be triggered by clicking with the mouse.

In COMfortel® D-series devices, Action URL is used to implement CTI.

Further help under Action URL

Data Backup

During a data backup, a backup file is created that contains the configuration and other data for the phone. If required, this backup file can be uploaded to the phone again.

A data backup can, for example, be useful if the phone is reset to its default settings and it is not planned to completely reconfigure it.

Further help under Factory settings

Requirement for use

- A data backup involves protected data. Before downloading starts, you must acknowledge that in the dialog window.

Important: Note the following legal notes before backing up the data. The data backup includes these elements with special legal protection:

- The phone's configuration
- Names of internal subscribers
- Passwords set for the telephone, subscribers, VoIP accounts and VoIP subscribers
- The phone's address books
- Connection data sets with destination, source, and time information of a telecommunication connection

All the phone's users must be informed that this content will be transferred, and who will process the data obtained, before a backup is created. It is essential to store the data securely and in accordance with legal requirements. You must ensure that all legal requirements

are met if you want to supply the data backup to your specialised dealer or the manufacturer for error analysis.

Configuration

Web interface:

- **Backup**

Details about the settings are in Backup and restore

Date and Time

The date and time are displayed in the phone's status line.

The date and time are needed to log incoming, outgoing and missed calls and to control various functions on the phone, such as automatic updates.

Note: If you change the time zone, the time stamp assigned to all data on the phone is adjusted to suit the new time zone.

Configuration

Web interface:

- **Date and Time** > **Basic Network Settings**

Details about the settings are in Date and Time

Phone:

- **Settings** > **Date and Time**

Details about the settings are in Date and Time

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Device information

If required, you can display detailed information about the phone and assign a device name to it.

The device name you assign is:

- displayed in the browser tab after you enter the device type
- displayed in the telephone's widget
- used to manage the device for Bluetooth connections
- used as the identifier for a backup file.

  Example: [device name]_[device type]_config_[date]_[time].xml

Display Options

Web interface:

- **Dashboard**

Details about the settings are in Status Information

Phone:

- **Preferences** > **About phone**

Details about the settings are in About phone

Dial a Subscriber Number Manually

Important: Always enter external subscriber numbers with a leading exchange line access number. In the default settings, the PBX's exchange line access number is "**0**", but it can be changed in some PBXs (refer to "Advanced Information for the PBX").

Notes: When dial 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. If you would like to exit dial preparation without dial the subscriber number entered, press Back ⮌.

Description of the operation under Dialled calls

Display and LED

Settings in the Display and LED menu adjust the device to suit existing conditions at its place of use and your preferences. They affect the following:

- Potential device idle state
- Phone display brightness
- The brightness on all key extension modules that are connected
- The way the Message LED behaves.

Configuration

Web interface:

- **Display** > **Basic settings**

Details about the settings are in Display

Phone:

- **Settings** > **Display and LED**

Note: To display the slider used to set the brightness, you can also drag the status bar out of the top display edge.

Note: You can only make settings that control LED behaviour on the phone.

Details about the settings are in Display and LED

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Do not Disturb

If Do not disturb is enabled, inbound calls are rejected.

The caller hears the busy tone.

The Do not disturb function has no effect on dialled calls and callbacks.

Configuration

Web interface:

- **Telephony** > **Call signalling** > **Do not Disturb**

Details about the settings are in Call signalling

Phone:

- **Settings** > **Telephony** > **Do not disturb**

Details about the settings are in Telephony

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Factory settings

If you reset the phone to its factory settings, you can delete any data and settings saved on it. This includes, for example, deleting personal data (such as your contacts), function key assignments and identities.

The phone is shut down and then restarted. This can take some time.

Note: If you reset the phone to its factory settings, you can delete any data and settings saved on it. All personal data is deleted. You cannot undo this action. To save particular settings such as a configured identity, you can first perform a data backup.

Further help under Data Backup

Requirement for use

- If required: Back up your personal data and settings

Configuration

Web interface:

- **update** > **Restart and factory reset** > **Reset to default**

Details about the settings are in Update

Phone:

- **Settings** > **update** > **Reset to default**

  or

- Follow the instructions in **Procedure directly on the device**

Details about the settings are in Update

Procedure directly on the device

1. Disconnect the network cable that supplies the phone with current.
   The power supply is cut.
2. Press and hold these two buttons at the same time:
   - Hold
   - Directional pad
3. Plug the network cable in again.
   The power supply is restored.
   The casing LED first flashes quickly, then more slowly.
4. As soon as the casing LED starts flashing more slowly, release both buttons.
   You will reset the phone to its factory settings.

Note: If you do not release the Hold button, and the directional pad, , in the predefined time window, the phone boots in the normal way. The phone will not be reset to its factory settings.

Fallback identity

A configured fallback identity supports system operation. If the main identity fails, the fallback identity is automatically registered on the PBX/at the provider.

Note: This process starts automatically and may take a few minutes.

The fallback identity only has reduced functionality. For example, functions cannot be assigned to some function keys.

When a fallback identity is active, **Messages** flashes and informs the user about the current status.

When the main identity is restored, the fallback solution is automatically disabled and operation starts again, as it was before.

Each main identity can only have one fallback identity and vice versa. You cannot set up a chain or ring.

Requirements for use

- The fallback identity must be configured on a different PBX or at a different provider.

Configuration

Web interface:

- **Identities** > **Options for experts** > **Fallback for**

Details about the settings are in Options for experts

Phone:

- **Settings** > **Identities** > **Options for experts** > **Fallback for**

Details about the settings are in Fallback for

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Process

You can decide whether a configured identity is to function as a main or fallback identity.

- No other settings are necessary for a main identity.
- This setting is necessary for a fallback identity:

1. In the **Fallback for** list, select the identity that is to be covered by a second, fallback, identity, if it becomes necessary.
2. **Save**

Function keys

The device has touch function keys which you can program to suit your needs. Each function key has a multi-colour display that indicates its status, based on its assignment.

The number of programmable function keys on the device can be extended by adding up to three COMfortel D-XT20 or D-XT20i key extension modules (not included in the scope of delivery). Modules are attached to the right-hand side of the phone.

Note: If you connect more than one key extension module, use a COMfortel D-XT-PS power supply unit (not in the scope of delivery).

The programmable function keys on the key extension module can each be defined three times (on three levels).

Configuration

Web interface:

- **Function keys**

Details about the settings are in Function keys

Phone:

- **Settings** > **Function keys**

  or

- In the touch function keys area on the home screen > **Add entry to list**

Details about the settings are in Function keys

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Procedure for assigning function keys using the phone

Setting up a new function key on the telephone:

- **Add entry**

Assigning a function to a free position between 2 function keys on the telephone:

- Use the directional pad keys to navigate to the relevant position.
- **Insert**

  The new key is inserted above the selected key.
  The numbering of subsequent keys is adjusted.

Setting up a new function key on the COMfortel D-XT20/-XT20i key extension module:

- Press a key that is not assigned (keys that have a function assigned to them shine orange).
- If necessary, change between key levels by pressing the control rocker.

Selecting a Key Level (only extension module)

Change between key levels by pressing the **control rocker**.

On the key extension module, you can see the current key level on the horizontal scroll bar on the top and bottom edge of the display.

The display content changes according to the selected key level. The function key names are also displayed.

If no function keys have functions assigned to them, the display does not change.

Process for assigning function keys using the Web Interface

1. Select a button to which a function has not already been assigned.
2. Change to the right level, if required **(Level 1– 3 tab**, only extension module).
3. Select the function that is to be assigned to the key.
4. Set other necessary parameters, if necessary.
5. Save your settings.

   The assigned key label is displayed on the display.
   The key can be used with the function that has been assigned to it.

Extending the range of functionality using provisioning

You can use the templates in a provisioning file to extend the range of functions on the phone. These additional functions can be assigned to function keys.

Requirement for use

- Provisioning from PBX search enabled

Further help under Provisioning

- PBX firmware from Version 7.4
- Suitable template < > phone assignment on the PBX

During the next provisioning process, the configurations in the template file are loaded into the phone. The additional PBX functions are in the **Choose a function** (phone) or **Function** menu (web interface) and can be assigned to the function keys.

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Configured speed dial number can have a picture assigned to it

You can assign a picture, e.g. of the contact person involved, to a configured speed dial number, making it easier to assign a subscriber number to a contact.

Requirement for configuration:

- The URL of the external server on which the picture is stored

  or

- picture with Base64 encoding
- Speed dial number is configured

Further help under Speed dial

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Function key icons can have a picture assigned to them

You can assign a different image to a function key, via provisioning or in the web interface, enabling you to create a personalised user interface.

Requirement for configuration:

- Image file in one of these formats
  - .jpg
  - .png
  - .bmp

- .gif (animations are not displayed)

Function templates

If a device in the COMfortel® D-series is used on an Auerswald/FONtevo PBX, this function is used to provide access to templates and scripts that are specially designed for running on Auerswald/FONtevo PBXs. It is not necessary to have correctly configured provisioning to use it.

Configuration

Web interface:

- **Provisioning** > **Additional function templates**

Details about the settings are in Additional function templates

Phone:

- **Settings** > **Provisioning**

Details about the settings are in Provisioning

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Hands-free calling mode

During hands-free calling, the loudspeaker and microphone on the device are switched on. This enables you to phone if you don't have a hand free. Other people in the room can take part in the call.

Details about the settings are in Hands-Free Calling

Headset mode

A headset enables you to participate in calls without actually holding the receiver, unlike when you use a receiver. Corded headsets and cordless headsets with a DHSG interface are supported.

A headset must be plugged in for these functions to work:

- Initiating headset calls
- Transferring an active call to the headset
- Ending a call in headset operation
- Initiating the listen-in function on the receiver
- Ending the listen-in function through the receiver

Description of the operation under Headset Call

Identities

General
PBX
VoIP provider

General

An identity contains all the configuration data needed to register on a PBX/ with the provider and to enable telephoning. Up to 6 identities can be configured for the phone. One of these identities is the default identity.

The following applies to the default identity:

- There is only one default identity.
- The default identity is automatically used for dialled calls.
- If only one identity has been configured, it is automatically the default identity.
- If more than one identity has been set up, you can configure an **Identity** function key for each identity. If necessary, (e.g. if there is a problem with the default identity), you can simply press the appropriate function key to set another current identity as the default identity.

Note: The exception to this are the fallback identities. Fallback identities inherit their status from the main identity.

Caution: The default identity does not switch automatically. If a default identity fails, the LED on the appropriate function key lights up red.

PBX

Requirements for configuration

- You need to know the internal subscriber number for the phone entered in the PBX configuration
- You need to know the password entered in the PBX configuration
- You need to know the IP address set for the phone on the PBX
- The PBX must support the different codecs.

Further help under Codecs

Configuration

1. Enter the data specified by the PBX and make settings

   SIP Username = internal subscriber number as assigned on the PBX
   SIP Registrar = the PBX's IP address
2. Enable an identity

Web interface:

- **Identities** > Display settings

Details about the settings are in Identities

Phone:

- **Settings** > **Identities**

Details about the settings are in Identities

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

VoIP provider

Requirements for configuring an identity

- You need to know the user name assigned by the VoIP provider
- You need to know the password assigned by the VoIP provider
- You need to know the Authentication ID assigned by the VoIP provider
- You need to know the IP address assigned by the VoIP provider
- The VoIP provider must support the different codecs.

Further help under Codecs

Configuration

1. Enter the data specified by the PBX and make settings

   SIP Username = internal subscriber number as assigned on the PBX
   SIP Registrar = the PBX's IP address
2. Enable an identity

Web interface:

- **Identities** > Display settings

Details about the settings are in Identities

Phone:

- **Settings** > **Identities**

Details about the settings are in Identities

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Idle state

The telephone enters its idle state if it is not used before the time set here elapses.

The idle state display is displayed when the phone is in its idle state.

When the screen is in its idle state, it has:

- reduced brightness
- time display
- date display

Press any key to bring the phone out of its idle state. Tapping the display does not bring the phone out of its idle state.

If you want to make a call to a particular phone number while the phone is in idle state, the first digit key you press will bring the phone out of the state. You must then enter the first digit again to make the call.

Note: **Not automatically** is set as the default value.

Configuration

Web interface:

- **Display** > **Basic Network Settings** > **Idle state**

Details about the settings are in Display

Phone:

- **Settings** > **Display and LED** > **Idle state**

Details about the settings are in Display and LED

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Language and Location

You can configure the phone to suit the particular locale by setting the language for the screen and the keyboard.

Configuration

Web interface:

- **Start** > **Language and Location**

Details about the settings are in Language and Location

Phone:

- **Settings** > **Language and Location**

Details about the settings are in Language and location

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Note: In the web interface, you can set both the language and location, both for the web interface and for the phone.

LDAP

Using LDAP (Lightweight Directory Access Protocol), you can, for example, make phone books on a PBX available to the phone. Stored contact information is called and displayed in

- caller lists
- contact lists
- calls
- suggestions lists in dial preparation.

None of the information for a contact is stored on the device.

Requirement for configuration

- An LDAP server (for example, a PBX) and a minimum of one configured LDAP account.

Configuration

Web interface:

- **LDAP**

Details about the settings are in LDAP

Note: Only experts should make the settings that are possible in the **LDAP** > **LDAP filter** area. LDAP filter syntax is used. RFC 2254 and RFC 4515 are used.

Phone:

- **Settings** > **LDAP**

Details about the settings are in Contacts/LDAP

Provisioning:

Logging

The logging process records all important events, errors and warnings.

A difference is made between:

- logging (errors and warnings) and
- extended logging (debug info).

To display the logged data, press **Web interface** > **Dashboard** > **Status information** > .

Configuration

Web interface:

- **Access** > **Logging**

Details about the settings are in Logging

Phone:

- **Settings** > **Access**

Details about the settings are in Access

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Loudspeaker listening mode

In loudspeaker listening mode, 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 (not hands-free operation).

Description of the operation under Loudspeaker listening

Music on hold

When an incoming call is on hold, the "music on hold" is played.

Note: If the **Music On Hold** function has already been enabled on the PBX/at the provider, no additional settings are necessary here.

Configuration

Web interface:

- **Identities** > **Options for experts** > **Music on hold**

Details about the settings are in Options for experts

Phone:

- **Settings** > **Identities** > **Options for experts** > **Audio** > **Music on hold**

Details about the settings are in Audio

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

NAT

NAT (Network Address Translation) converts an IP address, for example of a private network, into an IP address on the public network. This gives all computers that communicate with each other in the private network access to the Internet via a single IP address. However, the internal IP addresses on the private network are not accessible for the Internet.

Requirements for configuration

- Configured DNS server
- If the **Active with STUN** option has been selected: the STUN server set up for the provider/PBX
- If the **Active** option has been selected: the registrar set up for the provider/PBX

Important: Every open port on the NAT router is a security risk. Apply the appropriate security measures.

Configuration

Web interface:

- **Identities** > **Options for experts** > **NAT**

Details about the settings are in NAT

Phone:

- **Settings** > **Identities** > **Options for experts** > **NAT**

Details about the settings are in NAT

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Network

General
IPv4
IPv6
VLAN
VPN

General

A network is a group of more than one computer and other communication devices, which are connected together. It provides a way for multiple users to access shared resources.

These protocols can be set up for the device:

- IPv4
- IPv6
- VLAN
- VPN

IPv4

A minimum of one IPv4 address and one subnet mask is required, to enable a device to communicate on the network.

Requirement for configuration

- There must be a connection to the network

Configuration

Web interface:

- **Network** > **IPv4**

Details about the settings are in IPv4

Phone:

- **Settings** > **Network** > **IPv4**

Details about the settings are in IPv4 Settings

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Note: At least one protocol must be enabled and configured. IPv4 cannot be disabled if IPv6 is disabled.

IPv6

A minimum of one IPv4 address and one subnet mask is required, to enable a device to communicate on the network.

Thanks to the longer IPv6 addresses, IPv6 offers a greater number of possible IP addresses than IPv4.

An IPv6 address is 32 characters long and consists of 8 blocks, each containing 4 characters.

Example: 2001:0db8:85a3:08d3:1319:8a2e:0370:7344

Requirement for configuration

- There must be a connection to the network

Configuration

Web interface:

- **Network** > **IPv6**

Details about the settings are in IPv6

Phone:

- **Settings** > **Network** > **IPv6**

Details about the settings are in IPv6 Settings

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Note: At least one protocol must be enabled and configured. IPv6 cannot be disabled if IPv4 is disabled.

VLAN

A VLAN (Virtual Local Area Network) is a logical network within a physical network.

Requirements for configuration

- VLAN is provided in the network
- The network interface type is VLAN

Configuration

Web interface:

- **Network** > **VLAN**

Details about the settings are in VLAN

Phone:

- **Settings** > **Network** > **VLAN**

Details about the settings are in VLAN

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

VPN

A VPN is a logical private network on a publicly accessible infrastructure. Only communications partners that are on this private network can exchange data and information. Data is exchanged via the VPN tunnel, where the tunnel acts as the envelope in which the data is transported.

Requirement for use

- Each end point must support the specific tunnelling protocol that is being used.
- You need to know the access data required to configure a VPN connection.

Configuration

Web interface:

- **Network** > **Enable LAN Port VPN**

Details about the settings are in VPN

Phone:

- **Settings** > **Network** > **VPN**

Note: The VPN can merely be enabled/disabled on the phone. It can only be configured in the web interface or by provisioning.

Details about the settings are in VPN

Provisioning:

Note: An example configuration, for a FRITZ!box (a German DSL modem/router), is described in the Auerswald DokuWiki. This configuration cannot be applied to VPN connections that are to be set up in a company environment.

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Process

1. Drag the slider right to enable **VPN**.
   Alternatively, you can enable **VPN** on the telephone.
2. Select the **VPN type**.
3. Enter the following parameters:
   - **Name**
   - **Server**
   - **User name**
   - **Password**
   - **DNS server**
   - **Search domain**
   - **IPsecIdentifier**
   - **Forwarding routes**
   - **Preinstalled IPsecSecret**
4. Load files for these parameters:
   - **IPsecUserCert**

- **IPsecUserPrivateKey**
- **IPsecCaCert**
- **IPsec server certificate**
- **Open VPN Configuration**

Follow these steps: **Browse** for the relevant file, select it and then tap > **Save**.

Other options in the upload fields and in the context menu which is now displayed are:

- **View file**
- **Download**
- **Close**
- Delete
- Copy

Caution: The settings for **IPsec Xauth RSA**- and **IPsec Hybrid RSA**-type VPN connections depend on which server is in use. The network administrator must predefine the configuration.

Outbound proxy

The outbound proxy is an intermediate server that processes all VoIP requests and connections going to the provider (except for registration).

You must make settings in the outbound proxy range if:

- the IP address cannot be resolved
- an outbound proxy is present in your own network
- the provider requires an outbound proxy

Requirements for configuration

- Data provided by the VoIP provider/administrator for the **Outbound proxy host** and **Outbound proxy port**

Configuration

Web interface:

- **Identities** > **Options for experts** > **Outbound proxy**

Details about the settings are in Outbound proxy

Phone:

- **Settings** > **Identities** > **Options for experts** > **Outbound proxy**

Details about the settings are in Outbound-Proxy

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Passwords

Passwords are used for authentication. The user uses the agreed character string to log on to the web interface.

When you set a new password, comply with the conventions below. The password should:

- be different from the previous one used
- contain at least one number
- contain at least one capital letter
- contain at least one lower case letter
- contain at least one special character
- be at least 9 characters long
- be different from the user name

Note: In general: If the password is complicated, it can be shorter. If a password is longer, it can use simpler character strings. Coloured bars provide direct visual feedback about the password strength when a password is entered.

Configuration

Web interface:

- Factory settings: Password dialogue is displayed when user enters phone's IP address in web browser
- **User**

Details about the settings are in User

Phone:

- **Settings** > **Access** > **Password web interface**

Details about the settings are in Access

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Pick-Up

Pick-up in idle state
Pick-up during a call

Pick-up in idle state

During a pick-up in idle state, you can take a call on your own phone that was being made to another internal phone.

Description of the operation under Pick-Up

Requirements for use:

- **Pick-up** permission granted in the PBX
- Pick-up is performed on the PBX and triggered with the sequence **##06**

Note: To perform a pick-up using the speed dial button, you must enter the pick-up code.

- Function key with the speed dial for the internal phone that is to be called configured on it

Pick-up during a call

During an active call, you can take a call on your own phone that was being made to another internal phone.

Description of the operation under Pick-Up

Requirements for use:

- **Pick-up** permission granted in the PBX
- Pick-up is performed on the PBX and triggered with the sequence **##06**

Note: To perform a pick-up using the speed dial button, you must enter the pick-up code.

- Function key with the speed dial for the internal phone that is to be called configured on it

Provisioning

During provisioning, the phone is automatically configured via a provisioning server. Here, the phone sets up a connection with a provisioning server, over which it receives the necessary configuration data. An update is then carried out.

Provisioning options

- **Provisioning with DHCP data**

  The phone obtains the provisioning server's URL from a DHCP server. Additional data for controlling provisioning can also be transferred along with the URL.

- **Provisioning using a redirect server**

  The phone obtains the provisioning server's URL from the redirect server.

- **Provisioning from PBX search**

  The phone is configured automatically via the PBX.

Note: Enable **Provisioning from PBX search**, for example, if you want to add PBX functions to the function key assignments.

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

- **Provisioning using the provisioning server URL**

  The URL is required if provisioning is not performed using DHCP data or a redirect server.

- **SIP provisioning**

The phone is configured using incoming SIP messages.

Requirements for configuration

- The PBX or phone must be connected to a broadband Internet connection
- There is network access with valid settings

Further help under Network

- The time is valid

Further help under Date and Time

Configuration

Web interface:

- **Provisioning** > **Basic Network Settings**
- **Provisioning** > **Schedule**
- **Provisioning** > **SIP provisioning**

Details about the settings are in Using provisioning

Phone:

- **Settings** > **Provisioning**

Details about the settings are in Provisioning

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Automatic provisioning process

1. Enable **Automatic provisioning**.
2. Select one of these:
   - Provisioning with DHCP data
   - Redirect server
   - Provisioning from PBX search
   - Provisioning server URL

   You can select combinations of these options.
3. Configure the schedule.

Note: You can only configure the schedule in the web interface.

Automatic provisioning is performed as set in the schedule and also each time the device is restarted.

Manual provisioning process (only on the phone)

1. Select one of these:
   - Provisioning with DHCP data
   - Redirect server
   - Provisioning from PBX search
   - Provisioning server URL

   You can select combinations of these options.
2. Press **Start provisioning**.

   Provisioning is performed.

SIP provisioning process (only in the web interface)

- Switch on SIP provisioning.

You will find more information on configuration via SIP messages and also the provisioning process in the Auerswald DokuWiki.

Query Calls

During a query call you are talking with one subscriber while the previous call partner is put on hold by the PBX in the background, and hears the on-hold music.

The phone supports 3 call channels. When the channels in the phone are put on hold in the PBX, they become inactive, so up to 2 calls can be on hold in addition to one active call.

A query call is initiated either by calling a query call subscriber, by using the Pick-up during a call or by accepting a call signalled by the call waiting tone.

Description of the operation under Pick-Up

Further help under Call waiting

Options during a query call

- **Splitting a call**

  You can use the call-splitting function to alternate between the call partners.

Description of the operation under Query Calls

- **Ending one of the two calls**

  When you end a query call and would like 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.

Description of the operation under Query Calls

- **Connecting the two call partners to each other**

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

Description of the operation under Query Calls

Redial List

Description of the operation under Redial List

Reverse search

During inbound and outbound calls, the name for the subscriber number is searched for in the locally and non-locally saved contacts on the phone.

If inbound and outgoing calls are made with an unknown subscriber number, "unknown" is displayed in the screen, instead of the name if the caller does not transmit a subscriber number or number transmission is suppressed. However, if the called calls with a subscriber number that is not in any phone book, the transferred subscriber number is displayed instead of the name, unless the central ICT system has already transmitted its own designation instead of the name.

Note: If you deactivate the reverse search, this only affects the device phone book and LDAP. Information that comes from the PBX is not affected and is still displayed, despite this.

Configuration

Web interface:

- **Telephony** > **Reverse Search**

Details about the settings are in Call signalling

Phone:

- **Settings** > **Telephony** > **Reverse Search**

Details about the settings are in Reverse search

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Roaming User

Roaming User is a PBX COMtrexx function.

This function enables users who work, for example, in a large office with workplaces that are not assigned to specific people (i. e. "free seating" or "hot desking") to access any telephone that is configured in the PBX. In this way, the user can access the telephone system in the usual way, with their personal settings and authorisations.

Large office use case

The office has workplaces (with telephones) that are not assigned to specific people. These telephones are not assigned to a particular user or roaming user. A roaming user can now log on to one of these telephones. When they change workplace, they simply need to log on to a different telephone.

Office/home office use case

A roaming user has a telephone that is configured in the PBX at their office workplace and in their home office. To move from their office to their home office, the roaming user simply has to log on to their home office telephone.

Requirement for use

Roaming User authorisation must be assigned to the user in the PBX.

Process for logging onto/logging off the telephone

1. The PBX provisions the Login function key, →|, and the Logout function key, ←|.

Note:

If the user is logged out, the PBX provisions the Login function key, →|. After the user logs in, the PBX uses provisioning to replace the Login function key, →| with the Logout function key, ←|.

2. The user uses the Login function key, →|, to log on to the required telephone, with their PIN and user phone number.
3. All the user needs to do is log on to a different telephone.

   The following regulations/restrictions apply:

   - When the user starts using a different telephone, they are automatically logged out of the telephone they were using previously.
   - A user can only ever use one telephone at once.
   - If a user who is authorised to use the Roaming User function changes to a different telephone, they will either find the entries for the local caller list or the central caller list on it, as before (if the corresponding function is enabled).

Further help under Central caller list

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Silent Call

In a silent call, you can trigger a function by pressing the key to which it has been assigned without displaying the call on the telephone display.

Requirement for configuration

- PBX's valid known URI
- Provisioning from PBX search is enabled

Details about the settings are in Using provisioning

- Adjusted XML file with which the PBX function can be triggered.

Configuration

Via provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Process

1. Provide a suitable provisioning file.
2. Enable **Provisioning from PBX search**.
3. Enter the relevant **Provisioning server URL**.
4. Set up a function key with the extended function provided by provisioning.

SIP

The Session Initiation Protocol (SIP) network protocol sets up a communication session between two or more subscribers. SIP is only used to negotiate the communication conditions. Other protocols such as RTP are responsible for actual data transfer.

Session Timer, Session Timeout and Protocol type settings must be made, for problem-free communication.

You can select protocol type **UDP** or **TCP**.

- **UDP**: (the User Datagram Protocol) is used to send data packet over connectionless non-secure communication lines. 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 definitely arrive at the recipient. This particular protocol only needs a small amount of additional information, which results in a better data throughput rate in a well-functioning network such as a LAN. UDP is used, for example, for DNS (Domain Name Server).
- **TCP**: 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 to the recipient address, in the correct sequence. In this process, every data packet sent must be resent until it has been confirmed as arrived. To ensure this happens, a large amount of information is sent along with the actual payload data. Most Internet services, e.g. HTTP (www), SMTP/POP3 (e-mail), etc. are implemented with TCP.

Configuration

Web interface:

- **Identities** > **Options for experts**

Details about the settings are in Options for experts

Phone:

- **Settings** > **Identities** > **SIP**

Details about the settings are in SIP

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

SIPS

SIPS are SIP data encrypted using the TLS protocol. The network protocol sets up a communication session between two or more subscribers.

The provider encrypts external connections to prevent listening in. The processes used to set up and shut down a connection, and signalling, are all encrypted by SIPS.

Requirement for configuration

- The phone's certificate must be known on the PBX.

Configuration

Web interface:

- **Identities** > **Options for experts** > **SIPS**

Details about the settings are in Options for experts

Phone:

- **Settings** > **Identities** > **SIPS**

Details about the settings are in Security

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Sound

Sets the sounds for signalling

- inbound calls
- notifications
- alarms
- ringtones by call type.

Additional ringtones can be added to the device. The number of ringtones is only limited by the amount of memory. Supported file formats:

- .wav
- .mp3
- .ogg.

Maximum music file size: 5 MB. Personalised ringtones will not be backed up.

Priority for defining ringtones

1. A contact/group with a configured ringtone is present locally for a subscriber number. The contact melody defined in the telephone is used first.
2. The alert info in the SIP Invite has a valid URL for a ringtone that can be downloaded externally.
3. The alert info in the SIP Invite has a pseudo URL or an info field that matches one of the predefined designations, e.g. for group calls, internal calls, external calls, alarm calls, door calls or “mute” calls).
4. The identity has a specific ringtone.
5. A defined default ringtone is used.
6. The Android fallback ringtone is used.

Configuration

Web interface:

- **Ringtones**

Details about the settings are in Ringtones

Phone:

- **Settings** > **Sound**

Details about the settings are in Sound

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Process

1. All available ringtones are listed.
2. You can listen to the ringtone by
   - using the directional pad keys to select the individual ringtones in the list.

     and

   - hovering over a selected entry
3. When you confirm your ringtone selection, the menu closes.

   The selected ringtone is then used as the default for incoming calls.

Speed dial

With the **speed dial** function, you can not only assign internal and external subscriber numbers to a function key, but also PBX programming sequences.

Speed dial keys can be used in the following ways:

To Dial a Subscriber Number

The subscriber number will be dialled immediately when a speed dial button is pressed. If a speed dial button is pressed during a call, a query call is placed and the saved subscriber number is dialled immediately.

Assignment Overview

Speed dial buttons assigned to internal subscriber and group subscriber numbers provide a way for the user to view the LEDs and see which subscribers and groups are active or busy.

Pick-Up and Call Pick-Up

Speed dial buttons defined with internal subscriber and group subscriber numbers enable pick-up for these subscribers and groups. If the LED next to the button is blinking red because the saved subscriber number is being called, you can take the call on your phone by pressing the speed dial button and then confirming. If a subscriber allows call pick-up (for example on an answering machine), you can still take the call on your phone in the same manner, even after it has already been accepted.

Configuration

Web interface:

- **Function keys** > **Speed dialling**

Details about the settings are in Speed dial

Phone:

- **Settings** > **Function Keys** > **Speed dial**

Details about the settings are in Speed dial

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Assigning a picture to a configured speed dial number

Requirements for use:

- The URL of the external server on which the picture is stored

  or

- picture with Base64 encoding

A suitable tool for converting pictures to Base64 standard is provided at Image2Base64-Converter

To assign a picture to a configured speed dial number, do this:

1. Use the web interface to backup and restore your phone's current configuration: **Backup and restore** > **Create backup** > **Save**.
2. Open the backup file in a suitable editor.
3. In the code, find the place where the speed dial number is configured:

   `<key keyNumber="" icon="" info="" label="">`

   Note: The values assigned during configuration for `keyNumber`, `info` and `label` are displayed.
4. In `icon=""`, enter this data between the two quotation marks:

- the external server's URL

  or

- the character string output by the Converter.

5. Save the backup file.
6. Using the web interface, upload the backup file back into your phone: **Backup and restore** > **Restore backup** > **Browse** > Select saved file > **Import**.

The icon for **Speed dial** is replaced by the selected picture.

Further help in the Auerswald DokuWiki

SRTP

SRTP (Secure Real-Time Transport Protocol) is used to encrypt call data.

Important: If you are using this on a PBX, the PBX specifies the encryption method. In contrast, you must adjust the encryption settings on the phone.

Configuration

Web interface:

- **Identities** > **Options for experts** > **SRTP**

Details about the settings are in Options for experts

Phone:

- **Settings** > **Identities** > **SRTP**

Details about the settings are in Security

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Sync

Use the Sync app to configure other cloud services. Most importantly, contacts and calendar entries from a cloud provider are synchronised with the telephone.

Requirement for use

Information needed to set up an account:

- Provider's name
- E-mail address or username
- Password

Configuration

Phone:

Details about the settings are in Sync

Process

1. Before you can start setting up an account, you must assign the authorisation to synchronise calendar entries and contacts.
2. Add a new account to the Sync app.
   - To do so, follow the instructions on the device display. To set up the account, you need the e-mail address or username, name of the provider and the associated password.
3. Adjust the Sync Interval if necessary.

4. Import the contacts and calendar entries.

When the new account has been successfully set up, the contacts and calendar entries for the synchronised account are displayed on the device. Synchronisation is performed in both directions. Entries created on the device are also visible, and can be used, on other end devices.

Transferring calls

Call transfer types
Transferring a call with an announcement
Transferring a call without an announcement
Calling a 3rd internal subscriber

Call transfer types

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

During an existing call, you can perform a call transfer in these ways:

- Transfer the call with an announcement
- Transfer the call without announcement (blind transfer)
- Call the 3rd internal subscriber and connect them to an active call partner

Transferring a call with an announcement

Requirement for use

- A query call that you initiated yourself.

Process

To transfer a call, a query call is placed.

The call is announced.

The two call partners are connected with each other.

Description of the operation under Transferring calls

Transferring a call without an announcement

Also called blind transfer.

Requirements for use

- A query call that you initiated yourself.
- To connect two external communication partners, the following is required: **Transfer of external calls to external** permission granted in the PBX.
- Internal transfer destination

Process

If an external call partner is to be transferred to another internal subscriber, there is no need to wait until the subscriber called in the query call picks up. The receiver can be put down during calling.

The call to the internal subscriber will be forwarded.

If the subscriber accepts the call, the connection is established.

If the called subscriber does not pick up, the call returns to the caller's own phone (the phone rings) after 2 minutes (or as set on the PBX or at the provider).

Description of the operation under Transferring calls

Calling a 3rd internal subscriber

Calling a 3rd internal subscriber and connecting them to an active call partner

Requirements for use

- A query call that you initiated yourself
- To connect two external communication partners, the following is required: **Transfer of external calls to external** permission granted in the PBX.

Process

An additional call is added to a existing call (for example, when a call waiting call is accepted).

This second subscriber is to be transferred to another subscriber.

To do so, a third call is triggered and the second subscriber is connected to the third subscriber.

The original, existing call continues.

Update

An update involves updating the firmware, to add new features and resolve any problems that might exist. Here, the device sets up a connection with an update server, from which it downloads the latest firmware. (The settings on the device remain unchanged). There are three ways of carrying out an update:

- Manual update
- Automatic update
- Using provisioning

Further help under Provisioning

If the **Check for updates** function is activated, the device searches for updates at these times:

- Update attempt when the telephone is rebooted
- Update attempt after provisioning
- Update attempt according to the schedule.

Requirements for configuration

- Address of the update server

Manual Update

During a manual update, the downloading of the update is triggered manually. After the update, the phone restarts automatically.

Configuring a manual update

1. Enter the Update server URL

In the default settings: https://update.auerswald.de

Web interface:

- **Update**

Details about the settings are in Update

Phone:

- **Settings** > **Update**

Details about the settings are in Update

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Manual update process

1. **Web interface**: Press the **Start update** button

   Phone: Press the **Install** soft key as soon as the message that a new firmware version is available is displayed on the screen.

Automatic update

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.

Configuring an automatic update

1. Enable **Automatically install updates**
2. Enter the **Update server URL**

   In the default settings: https://update.auerswald.de

3. **Web interface:**

   Set the **Weekdays** and **Clock Time**.

Web interface:

- **Update** > **Basic Settings**

Details about the settings are in Update

Phone:

- **Settings** > **Update**

Details about the settings are in Update

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Automatic update process

It can take up to 60 minutes to perform an automatic update.

When you set the Weekday/Clock Time for an automatic update, the system checks for new firmware during this time period and downloads and installs it if necessary.

Is automatic update is not enabled, the system only checks for a newer version of the firmware during this time period.

If there is a newer version of the firmware, you are informed in a message on the screen.

User

The user adjusts the different authorisation levels setting so that they can make settings in the web interface. By default, the **admin** user is set up. You can add more users:

- Using provisioning

Further help under Provisioning

- By exporting the telephone configuration, editing the right section in the exported .xml file and then restoring the backup by importing the relevant file.

Further help under Data Backup

Configuration

Web interface:

- **User** > Display settings

Details about the settings are in User

Caution: Passwords that are unchanged from the default settings are a security risk. Change the password without delay.

Voicemail number

A voice mailbox acts as an answering machine. Depending on the setting, it accepts incoming calls and stores recorded messages as audio files (.wav).

Messages and announcements are not stored on the phone, but on the PBX.

The size of the voice mailbox and the authorisation to use it are set on the PBX. A voice mailbox can be assigned to an individual subscriber or to a group. A subscriber can be given the authorisation to use several voice mailboxes.

You can link a configured voice mailbox with the selected identity by entering the associated voicemail number.

Important: The voice mailbox is only available during operation on the following PBXs:

- COMpact 4000
- COMpact 5010 VoIP
- COMpact 5020 VoIP
- COMpact 5000/R
- COMpact 5200/R
- COMpact 5500R
- COMmander 6000/R/RX

In some PBXs, you will need to install another module (available as an optional extra) to run a voice mailbox:

- COMmander 6000/R/RX: COMmander VMF module

- COMpact 5010 VoIP: COMpact 2VoIP module
- COMpact 5020 VoIP: COMpact 2VoIP or 6VoIP module

Requirement for use

- A configured and assigned voice mailbox

Configuration

Web interface:

- **Identities** > **Options for experts** > **Voicemail number**

Details about the settings are in Options for experts

Phone:

- **Settings** > **Identities** > **Voicemail number**

Details about the settings are in Function codes

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Wallpaper

You can change the normal wallpaper used on the telephone's home screen. This enables you to customise it to match your company's corporate design or your own preferences.

There are the following ways to change the home screen:

- Using provisioning
  - Provide the image in the form of a Base64 string
  - Provide a link to an image file on a web server
- Set an image in the Android Gallery as the wallpaper for the home screen

If an image does not have the set dimensions, it is scaled and trimmed.

Requirement for use

- Image files with file format .png or .jpg
- Max. file size 5 MB

Configuration

Phone:

- Gallery app > required image > ⋮ > **Set picture as**

Details about the settings are in Gallery

Provisioning:

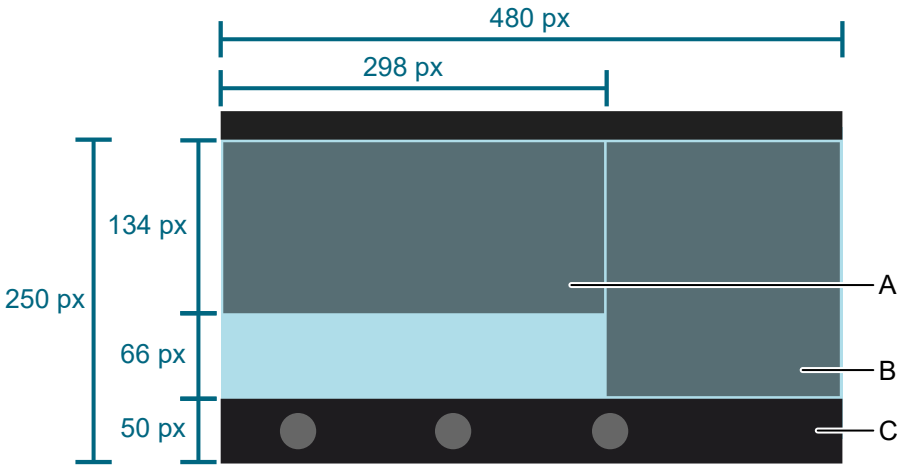
You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Display screen layout

Screen size:

- 480 x 250 px
- 130 dpi

The following pixel values are intended as a guide when creating personalised wallpapers.



A. Status widget
B. Functions widget
C. Soft key bar: Covers the wallpaper image at a height of 50 px.

XML Minibrowser

The XML Minibrowser is a feature of COMfortel® D-series phones.

The browser enables menus and dialogs that you have created yourself, in XML, to be displayed. You can upload the XML documents from a normal web server, using http, provided they have been stored there.

You can use this function to display menus and dialogs that you have created specially for that purpose.

You can display and modify apps such as phone books created to meet your own special requirements, lists of missed calls, settings on the PBX on the own needs (for example, Do not disturb, Call forwarding etc.).

Requirement for use

- .XML files stored on a web server

Configuration

Web interface:

- **Function keys** > **XML mini browser**

Details about the settings are in XML Minibrowser

Phone:

- **Settings** > **Function Keys** > **XML Minibrowser**

Details about the settings are in XML Minibrowser

Provisioning:

You will find general details about provisioning and how to provision this function in Auerswald DokuWiki

Process

- Press the button on which the **XML Minibrowser** function has been configured.

  After you press that button, the phone sends an HTTP(s) GET command to the server, waits for the reply, and then decodes and displays this reply just like a normal web browser would.

Further help in the Auerswald DokuWiki

Telephoning

Information about the section
Incoming calls
Call-Waiting Calls
Dialled calls
Call
Query Calls
Transferring calls
Conference call
Hands-Free Calling
Loudspeaker listening
Headset Call
Calls
Pick-Up

Information about the section

This section describes the different ways that you can use the phone for telephoning.

Important: The functions described in these instructions have been tested on Auerswald/FONtevo PBXs and then described. If the phone is operated on other PBXs or VoIP providers, functionality may be partially or completely restricted.

Note: There are alternatives to the functions below. These alternatives have not always been listed.

To create/end a connection

Pick up the receiver

or

press Loudspeaker

or

press Headset

or

press OK

or

Reject a call

Press Back

or

Holding a call/Reconnecting from a call that is on hold

Press Hold

or

press OK OK

Incoming calls

Accepting a call

Pick up the receiver

or

press OK [OK]

or

press Headset [ ]

or

press loudspeaker [ ]

or

Rejecting a call

Press

Putting an accepted call on hold

Press Hold [ ]

Reconnecting an on-hold call

Press Hold [ ]

or

press OK [OK]

Call-Waiting Calls

Accepting

Pick up the receiver

or

press OK [OK]

or

press Headset [ ]

or

press loudspeaker [ ]

or

Further help under Call waiting

Rejecting

Further help under Call waiting

Forwarding

Transfer [ ] > Enter destination number > Loudspeaker [ ]

or

Transfer [ ] > Enter destination number >

or

Transfer > Select a saved contact >

Further help under Call waiting

Dialled calls

Dialling a Phone Number Manually

Pick up the receiver > dial a phone number

Further help under Dial a Subscriber Number Manually

Dial preparation

Dial the phone number > pick up the receiver

Further help under Dial a Subscriber Number Manually

Dialling from within the call history (all calls)

> **All** > Select phone number/contact

Further help under Overview: All call lists

Dialling from within the call history (missed calls)

> **Missed** > Select phone number/contact

or

Select the ✉ > **You have missed calls.** message key in the displayed status bar > Select phone number/contact.

Further help under Missed Calls

Dialling from within the redial list (outgoing)

> **Outgoing** > Select phone number/contact

or

Redial key > Select phone number/contact

Dialling from the contacts list

> select contact > confirm selection or pick up the receiver

Note: If more than one number is stored for a contact, you can select the number to call before you pick up the receiver.

Further help under Contacts

Call

Putting a call on hold

Active call > Hold

Further help under Call

Reconnecting an on-hold call

To do this, press Hold again

or

touch on the display

or

OK OK.

Further help under Call

Accepting a call

During an active call, the LED on the key with the **Speed dialling** function assigned to it shines red. Press the key with the **Speed dialling** function assigned to it to pick up the call.

Muting a call

Microphone

Switching off muting

Press microphone again.

Ending a call

Hang up the receiver

or

Further help under Call

Sending a DTMF signal during a call

To do this, enter digits and special characters

Further help under Call

Query Calls

Initiating a query call (during a call)

Hold [✆] > enter the destination number/contact (Keypad) > OK [OK]

or

Hold [✆] > [⠿] > enter the destination number/contact > OK [OK]

When you connect a COMfortel® D-XT20:

Hold [✆] > press the speed dial button (key extension module)

or

press the speed dial button (key extension module)

Further help under Query Calls

Ending the query call and returning to the previous call

Hold [✆]

or

[✆"]

Further help under Query Calls

Splitting a call (during a query call))

Select the call partner to whom you want to change > [✆"]

Further help under Query Calls

Ending one of the two calls

Either one of the call partners hangs up the receiver

or

you can select the call partner for whom you want to end the call >

Further help under Query Calls

Connecting the two call partners to each other

To do this, hang up the receiver

or

Further help under Query Calls

Transferring calls

Transferring a call with an announcement

Requirements:

- A query call that you initiated yourself see

Further help under Query Calls

Vorgehensweise:

Further help under Transferring a call with an announcement

Transfer without announcement (blind transfer)

Proceed as follows:

Hold > enter destination number/contact > OK >

Further help under Transferring a call without an announcement

Conference call

Die aufgeführten Möglichkeiten beziehen sich sämtlich auf eine selbst eingeleitete Konferenz.

Initiating a call

Scenario:

- there is an existing connection between you and at least two other subscribers.

Further help under Conference calls

Splitting a call

To do this, select the required subscriber >

Note: If you press several times, you restore the conference call.

Further help under Conference calls

Connecting the other two conference call partners to each other

Further help under Conference calls

Splitting a conference call

One subscriber is put on hold and there is an active connection with the other subscriber. You can change between holding a call and an active call.

Press Hold to do this.

Further help under Conference calls

Holding a conference call and initiating an additional call

Select the conference call > Hold > > OK

The conference call partners are put on hold and hear the "music on hold".

When the call ends, you can continue the conference call by pressing Hold again.

Further help under Conference calls

Ending a call with a conference call partner

Select the subscriber for whom you want to close the connection >

Then, there will only be a connection with the remaining subscriber.

Further help under Conference calls

Ending a conference call completely

To do this, hang up the receiver

or

Further help under Conference calls

Hands-Free Calling

Accepting a call in hands-free calling mode

Incoming call >

or

Incoming call > loudspeaker

or

Incoming call > OK

Further help under Hands-free calling mode

Initiating a call in hands-free calling mode

Select contact > tap on receiver

or

Select the phone number > loudspeaker

or

Select the phone number > wait for a short while

Requirement: **Automatic start of call** enabled.

Further help under Automatic Start of Call

Further help under Hands-free calling mode

Ending a call in hands-free calling mode

or

Loudspeaker

Further help under Hands-free calling mode

Loudspeaker listening

Switching on during a call through the receiver

Loudspeaker

Further help under Loudspeaker listening mode

Switching off and returning to a normal call

Loudspeaker

Further help under Loudspeaker listening mode

Ending a call in loudspeaker listening mode

To do this, hang up the receiver

or

Further help under Loudspeaker listening mode

Headset Call

Personally initiating a call when headset operation is switched off (headset LED is not shining)

Headset

or

EHS

Further help under Headset mode

Personally initiating a call when headset operation is switched on (headset LED is shining green)

Headset

or

or

OK

or

EHS

Further help under Headset mode

Transferring an active call to the headset

Headset

or

EHS

Further help under Headset mode

Ending an active call in the headset

Headset

or

or

EHS.

Further help under Headset mode

Initiating the listen-in function on the receiver during a headset call

Pick up the receiver > Headset

Further help under Headset mode

Cancelling the listen-in function on the receiver during a headset call

To do this, hang up the receiver

Further help under Headset mode

Calls

To open the call history

Further help under Caller list

To list missed calls

> **MISSED**

or

message ✉ > **You have missed calls**

Further help under Caller list

To list outgoing calls

> **OUTGOING**

or

Redial ⏺

Further help under Caller list

Options for displaying entries in an active list

⌄

or

OK OK (hold down the key for approx. 2 sec.)

Further help under Caller list

Editing an entry in the call history before making a call

> > **Edit number before call**

Further help under Caller list

Adding an entry in the call history to the contacts

> > **Add contact**

Further help under Caller list

Deleting entries from the call history

> > **Remove from list**

or

Clear

Further help under Caller list

Deleting an entire call history

Clear (hold the key for approx. 2 sec.)

Further help under Caller list

Calling from an opened call historyn

Pick up the receiver

or

OK [OK]

or

Loudspeaker [🔊]

or

Headset [🎧]

Further help under Caller list

To leave the call history

Back [←]

Further help under Caller list

Pick-Up

Pick-up (during call)

When speed dialling is set up

The LED on the key with the Speed dialling function assigned to it flashes red.

When you press the flashing function key, you pick up the call.

When speed dialling is not set up

Enter the pick-up code and phone number for the internal phone >

pick up the receiver

or

OK OK

or

Further help under Pick-up in idle state

Pick-up (during a call of your own)

When speed dialling is set up

Home ● > the LED on the key with the Speed dialling function assigned to it flashes red.

When you press the flashing function key, you pick up the call.

When speed dialling is not set up

Home ● > enter pick-up code and phone number for the internal phone >

pick up the receiver

or

OK OK

or

Further help under Pick-up during a call

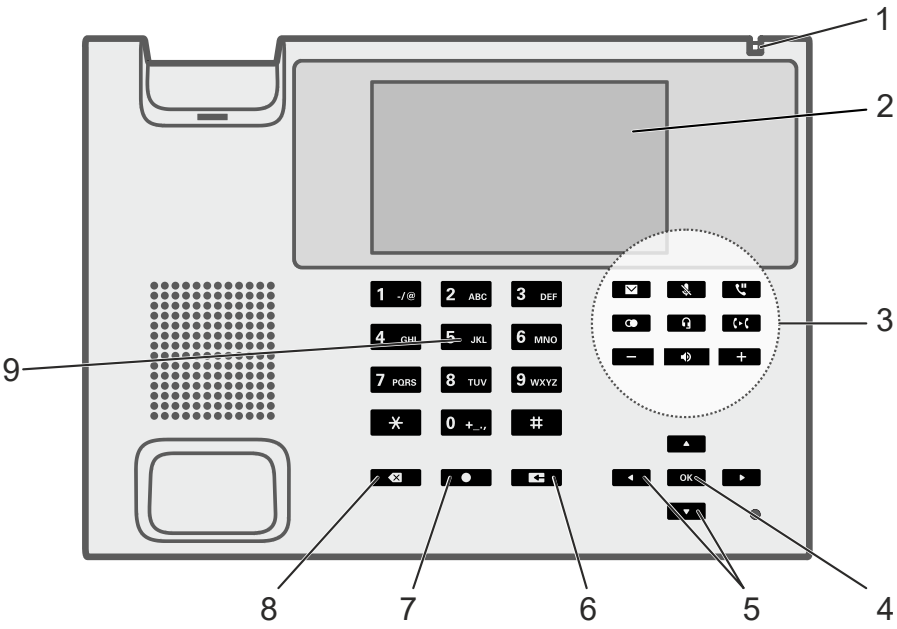
Device Overview

Front View
Rear View

Front View

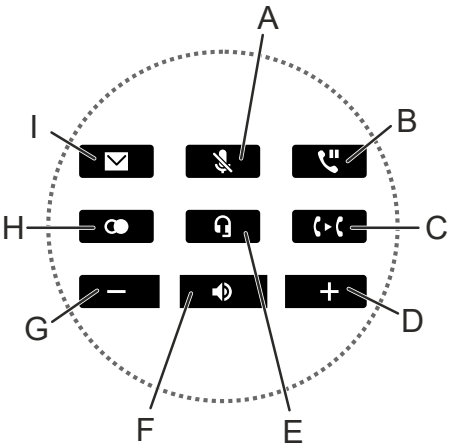
Each device has a touch display and different keys (some of which have LEDs). You can operate it using the keys or touch controls.

Keys and LEDs on the basic unit



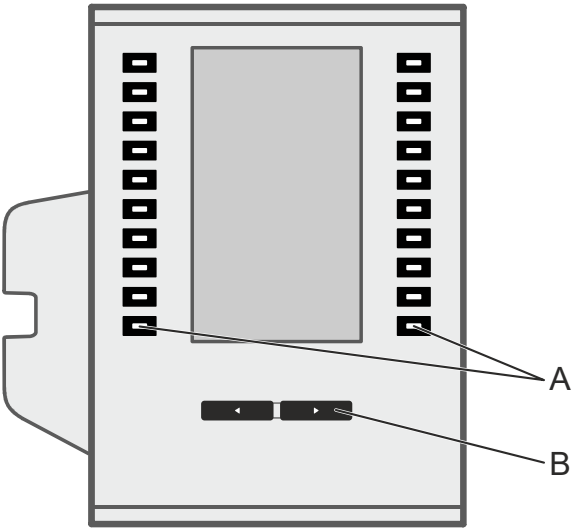
1. Casing LED
2. Touch display
3. Dedicated function keys
4. OK
5. Directional pad keys (Up, Down, Right, Left)
6. Back
7. Home

8. Delete
9. Keypad



A. Microphone
B. Hold
C. Transfer
D. plus
E. Headset
F. Loudspeaker
G. minus
H. Redialling
I. Messages

Keys and LEDs on the key extension module

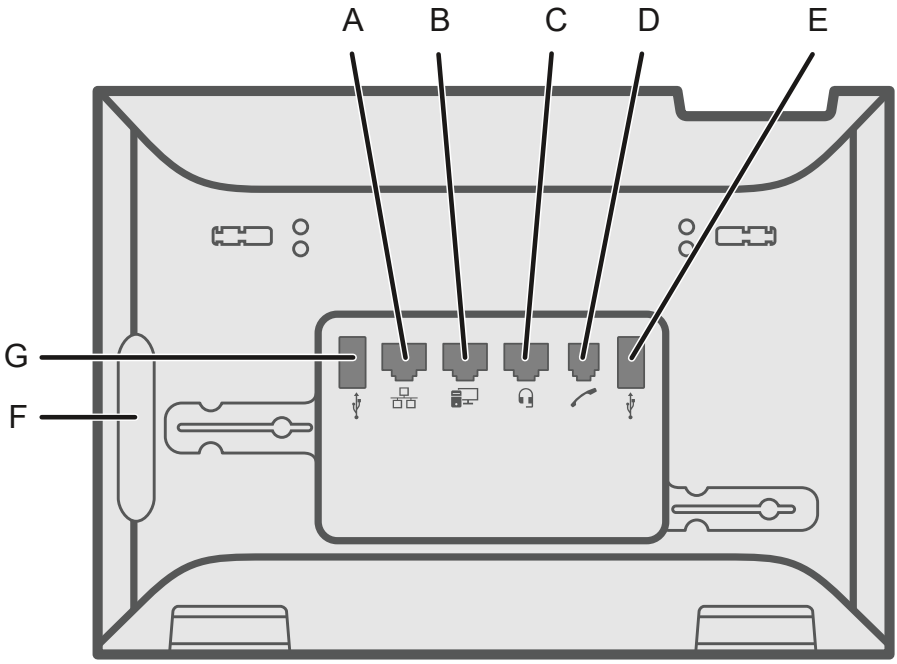


A. Function keys (10x on each side)
B. control rocker

Rear View

All connections on the bottom of the different devices.

COMfortel ® D-400

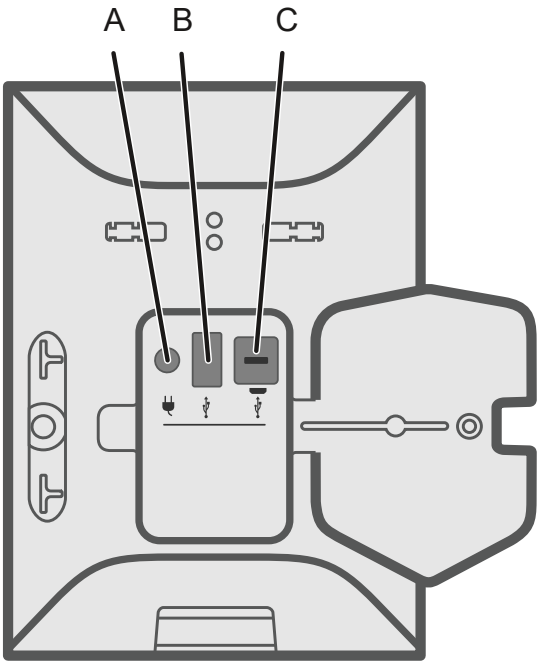


A. Network port
B. Direct PC connection via network cable
C. Headset socket
D. Receiver socket
E. USB port for a COMfortel D-Wireless (EZC-5200BS) Bluetooth dongle.

F. Rubber cover: to connect a COMfortel D-XT20 key extension module, remove the cover and attach it to the extension module.

G. USB port, exclusively for connecting a COMfortel D-XT20 key extension module.

COMfortel ® D-XT20



A. Socket into which you plug the COMfortel D-XT-PS wall-mounted power supply (if you connect two or more key extension modules)

B. USB port (e.g. for connecting another COMfortel D-XT20 key extension module)

C. Micro-USB port: use this to connect the telephone to the key extension module

Using the Web Interface

Basic Knowledge
Dashboard
Display
Function keys
Using provisioning
Identities
IP camera
Update
Network
LDAP
Telephony
Ringtones
Date and Time
User
Backup and restore
Access

Basic Knowledge

Opening the Web Interface
Operating Instructions

Opening the Web Interface

You login with the authority level Administrator.

Requirement:

- Recommended browsers: Mozilla Firefox, Google Chrome. (current version)
- You need to know the phone's IP address. (You can find it on the phone: select **Settings** > **Network**)
- There must be an existing network connection between the PC and phone

Proceed as follows:

1. Enter the phone's IP address (e. g. http://192.168.178.4) in the browser address line.

   The login window opens.

2. Enter your User name and Password access data.

   If you are running the web interface for the first time, enter the following access data:

   - **User name: admin**
   - **Password: admin**

Caution: Passwords that are unchanged from the default settings are a security risk. Change the User password without delay.

3. Click on Login.

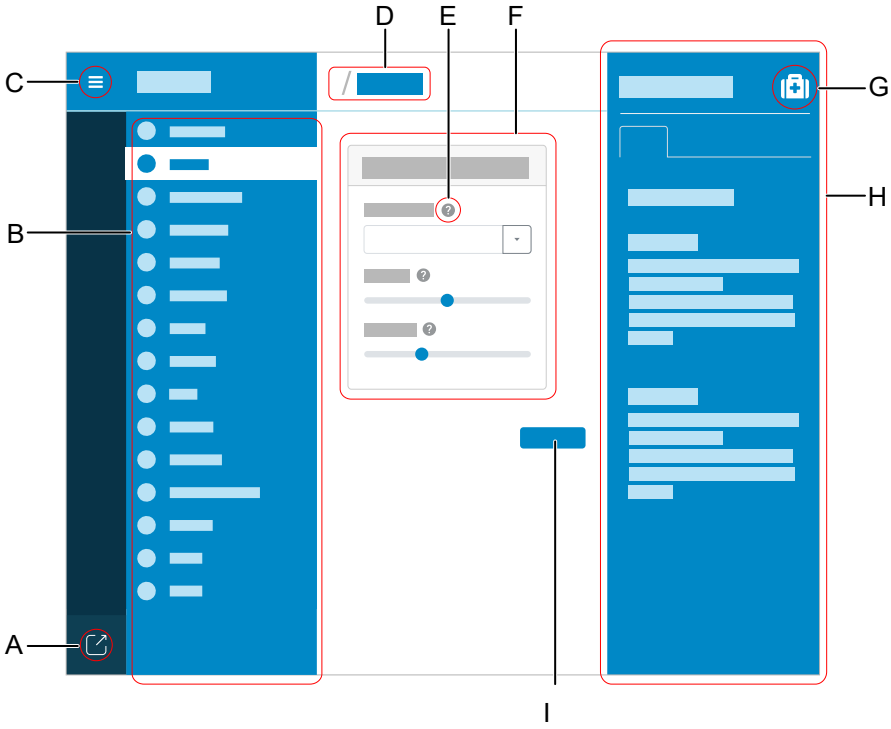
   You will now be logged on in the web interface and can make settings.

Operating Instructions

Overview
Fields and User Elements
Appearance

Overview

The web interface is divided into several areas:



A. Log out user

B. Vertical navigation

   Here, click on the required topic to select it.

C. Display or hide vertical navigation.

   If the menu structure on the left is being displayed, a vertical navigation is displayed.

D. Breadcrumb navigation

   Display the branching within the web interface.

Select the "house" icon to return to the home screen.

E. Context-sensitive help

F. Content area

The topic selected using the vertical navigation is displayed here.

G. Display or hide the help system.

H. Help system

I. Save

Fields and User Elements

Element	Function
	List field: enter settings in it to configure particular functions. The selected setting is displayed in the list field. Click on the arrow on the right of the list field to display possible options.
	Empty field: enter a name, value or web address in it. Click in the entry field and enter the text. The following characters must not be used: • " " quotation marks • $ dollar sign • % percent sign • < pointy bracket - less than • > pointy bracket - greater than • \ backslash • ^ caret • [ ] square brackets • { } curly brackets
	Active text input field.
	Text input field that is already filled.
	Text input field that is locked for processing.
	Form field for incrementally increasing/reducing a value.

Element	Function
	You can use a toggle button to enable some functions (move one point to the right) or disable them (move one point to the left). Click on an option to activate it. The previous selection is disabled at the same time.
	Use sliders to make infinitely variable settings (e.g. contrast settings). 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.

Appearance

The display/legibility of the web interface may be affected by browser settings, e.g.

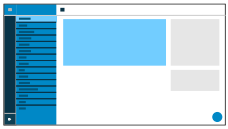
- Scale/zoom browsers (e.g.hold down Ctrl + scroll (mouse wheel))

Note: If the web interface is no longer legible because of the way the browser has been scaled/zoomed, you can restore the original view. (For example, in Mozilla Firefox, select **View** > **Zoom** > **100% (Original Size)** or press Ctrl + 0).

Dashboard

Status Information
Language and Location
Device name

Status Information



Type

Displays the phone model used.

Firmware version

Displays the firmware version currently in use on your device.

Further help under Update

Update system version

Displays the update system version in use on your device.

Bootloader version

Displays the bootloader version in use on your device.

Serial number

Displays your device's serial number.

MAC address

Displays your device's physical address on the network.

Logcat

Records all important events, errors and warnings and displays them in the browser. They are only recorded if the developer has implemented logging of errors or events.

Clipboard

Copies status information to the clipboard, so you can access it easily, for example, to make a request for support.

Online Help

Displays the online help in your browser.

Legal

Refers to the **Data protection**, **Auerswald license** and **Open source licenses** documents.

Data protection

Displays a multi-lingual PDF that contains information about the way Auerswald processes data, and how data is sent to Auerswald.

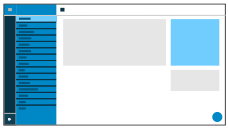
Auerswald license

Displays a multi-lingual PDF that contains Auerswald's software license agreement.

Open source licenses

Displays a multi-lingual PDF that contains information about the open source licenses that are in use.

Language and Location



Web interface language

Changes the language used in the web interface.

Further help under Language and Location

Phone language

Changes the language used on the phone user interface.

Further help under Language and Location

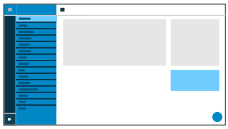
Location

Sets the phone's actual or required location.

Audio frequencies (pitches, pulse/pause characters and/or ringing tones), and also the time and time format, are different for each selected location.

Further help under Language and Location

Device name



Device name

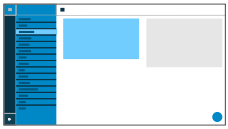
The name you assign to the device.

Further help under Device information

Display

Basic Settings
LED notifications

Basic Settings



Idle state

After the selected time, the phone is automatically returned to the idle state.

- **Not automatically**

  The phone is not automatically returned to the idle state.

Further help under Idle state

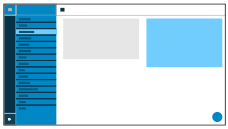
Brightness

Sets the brightness.

Note: Any changes you make to the brightness affect on all key extension modules that are connected.

Further help under Display and LED

LED notifications



Seen missed calls

Sets the message key LED's reaction to seen missed calls.

- **LED lights up**

  The message key LED shines and a text message is displayed in the Notifications menu.

- **LED is flashing**

  The message key LED flashes and a text message is displayed in the Notifications menu.

- **LED off**

  The message key LED does not flash and a text message is displayed in the Notifications menu.

- **Disabled**

  The message key LED does not flash and no text message is displayed in the Notifications menu.

Further help under Display and LED

Heard voice messages

Sets the message key LED's reaction to heard voice messages.

- **LED lights up**

The message key LED shines and a text message is displayed in the Notifications menu.

- **LED is flashing**

  The message key LED flashes and a text message is displayed in the Notifications menu.

- **LED off**

  The message key LED does not flash and a text message is displayed in the Notifications menu.

- **Disabled**

  The message key LED does not flash and no text message is displayed in the Notifications menu.

Further help under Display and LED

Message key LED

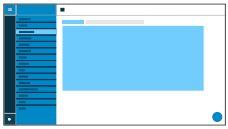
Controls the behaviour of the message key LED. If this option is deselected, the message key LED are switched off permanently.

Further help under Display and LED

Function keys

Overview
Edit function keys
Edit parameters
Edit icon

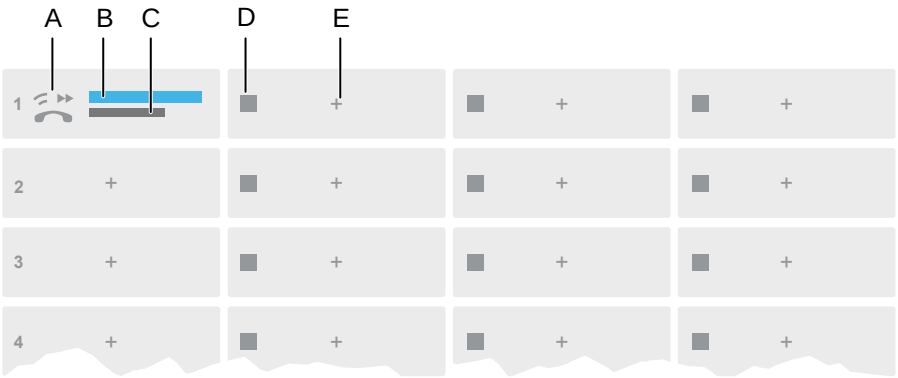
Overview



Function keys

You can see the interface in which you configure the function keys for the phone in the Function keys tab.

User interface phone



A. Function keys icon

Further help under System icons

B. Enter the same text as in the **Edit function keys** > **Key label** section

C. Function selected as described in the **Edit function keys** > **Function** section

D. Seq. number

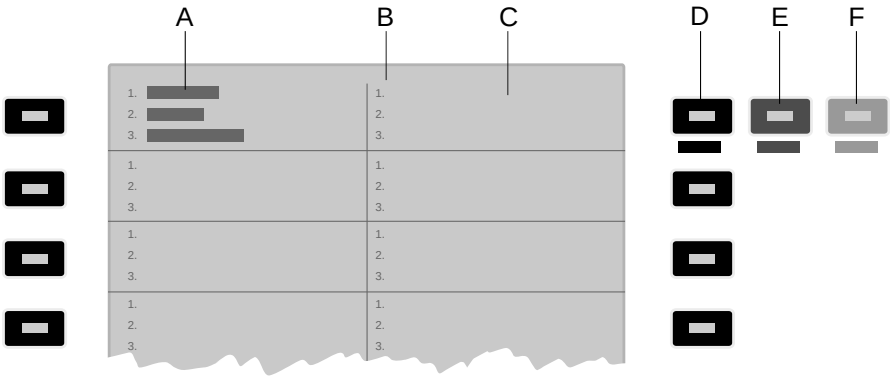
E. Displays the **Edit function keys** dialogue

Note: If a key already has a function assigned to it, the LED shines orange. You can assign a different function. For more information, see the section.

Key extension module (1 – 3)

You can see the interface in which you configure the function keys for the selected module in Key extension module tab 1 – 3. Up to 3 key extension modules can be connected.

User interface extension module



A. Shows that the phone's top left function key has had a function assigned to it on all 3 levels.

B. Lists all 3 possible levels to which a function can be assigned

C. Display

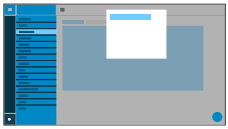
D. **Level 1** (always visible)

Click on the selected key to open the Edit function keys window

E. **Level 2** (opens when you pass over it with the mouse)
   Click on the selected key to open the Edit function keys window
F. **Level 3** (opens when you pass over it with the mouse)
   Click on the selected key to open the Edit function keys window

Note: If a key already has a function assigned to it, the LED shines orange. You can assign a different function.

Edit function keys



Level (1 – 3)

Click on one of the Level tabs (1 – 3) to jump between the 3 different key levels.

Function

Selects the function and displays the necessary parameters.

Note: To use additional function templates, activate the Auerswald/ Fontevo templates.

Further help under Function templates

Details about the settings are in Edit parameters

Edit icon

Displays the menu in which you select and adjust the required image file for use as an icon for the function key.

Details about the settings are in Edit icon

Key label

Displayed beside each function key on the screen.

Reset level

Removes the function assigned to the key on the current level.

Reset all levels

Deletes the functions assigned to the key on all levels.

Cancel

Closes the menu without adopting changes.

Save

Saves the entered parameters and close the window.

Edit parameters

Speed dial
Identity
Call waiting
Do not disturb
Browser
DTMF-Relay
Group
Group (incoming)
Group (outgoing)
Activate config
Anonymous call
Call forwarding on busy
Call forwarding on no reply
Call forwarding immediately
Call forwarding ext. calls: On busy
Call forwarding ext. calls: On no reply
Call forwarding ext. calls: Immediately
VPN
XML Minibrowser
Automatic configuration switching

Speed dial

Number/URI

Enter a phone number or address such as 198@192.168.XX.YY or 198@company.com, here.

Further help under Speed dial

Identity

Identity for which this function is set up.

Further help under Identities

Subscription

Activates the sending of BLF subscriptions to the PBX.

Note: It may be a good idea to deactivate subscriptions in situations when it is necessary to prevent the PBX from being overloaded by high volumes of transmitted data.

Pickup

Activates the Pickup function.

Note: Pickup only works if the Subscription function is activated.

Note: Pickup should not be used if the key is only used to switch functions in the PBX using a programming code. Deactivate Pickup in that case.

Further help under Pick-Up

Identity

Identity

Identity used to trigger subsequent calls.

Further help under Identities

Call waiting

No parameters necessary.

Further help under Call waiting

Do not disturb

Identity

Identity for which this function is set up.

Further help under Identities

Further help under Do not Disturb

Browser

Number/URI

Web server address

Further help under Apps

DTMF-Relay

DTMF sequence

Numbers needed to perform the required function.

Further help under Function templates

Group

Identity

Identity for which this function is set up.

Further help under Identities

Group

Group telephone number

Further help under Function templates

Group (incoming)

Identity

Identity for which this function is set up.

Further help under Identities

Group

Group telephone number

Further help under Function templates

Group (outgoing)

Identity

Identity for which this function is set up.

Further help under Identities

Group

Group telephone number

Further help under Function templates

Activate config

Identity

Identity for which this function is set up.

Further help under Identities

Configuration id

The PBX assigns the configuration ID automatically.

Further help under Function templates

Anonymous call

No parameters necessary.

Further help under Anonymous call

Call forwarding on busy

Identity

Identity for which this function is set up.

Further help under Identities

Note: Only assign the Identity parameter if PBX function templates are used.

Further help under Function templates

Destination

Call forwarding destination

Further help under Call forwarding

Call forwarding on no reply

Identity

Identity for which this function is set up.

Further help under Identities

Note: Only assign the Identity parameter if PBX function templates are used.

Further help under Function templates

Destination

Call forwarding destination

Further help under Call forwarding

Call forwarding immediately

Identity

Identity for which this function is set up.

Further help under Identities

Note: Only assign the Identity parameter if PBX function templates are used.

Further help under Function templates

Destination

Call forwarding destination

Further help under Call forwarding

Call forwarding ext. calls: On busy

Identity

Identity for which this function is set up.

Further help under Identities

Call forwarding for external calls

Point-to-multipoint connection: External phone numbers (MSN, see PBX configuration), for which call forwarding is to be performed.

PTP connection: Header plus extension for which call forwarding is to be performed.

Destination

Call forwarding destination

Further help under Function templates

Call forwarding ext. calls: On no reply

Identity

Identity for which this function is set up.

Further help under Identities

Call forwarding for external calls

Point-to-multipoint connection: External phone numbers (MSN, see PBX configuration), for which call forwarding is to be performed.

PTP connection: Header plus extension for which call forwarding is to be performed.

Destination

Call forwarding destination

Further help under Function templates

Call forwarding ext. calls: Immediately

Identity

Identity for which this function is set up.

Further help under Identities

Call forwarding for external calls

Point-to-multipoint connection: External phone numbers (MSN, see PBX configuration), for which call forwarding is to be performed.

PTP connection: Header plus extension for which call forwarding is to be performed.

Destination

Call forwarding destination

Further help under Function templates

VPN

No parameters necessary.

Further help under Network

XML Minibrowser

Number/URI

Web server address

Further help under XML Minibrowser

Automatic configuration switching

Identity

Identity for which this function is set up.

Further help under Identities

ID

Identification number for system relay with Automatic configuration switchover operating mode (900, in the factory settings).

Further help under Function templates

Edit icon

Browse

Displays a dialogue in which you can select a previously saved image file in the appropriate folder on the data storage device.

Further help under Function keys

Close

Closes the menu without adopting changes.

Further help under Function keys

Clear

Deletes the user-defined icon. The default icon for the selected function is displayed.

Further help under Function keys

Download

Saves the icon locally, as `icon.png`, size 64 x 64 px.

Further help under Function keys

Adopt

Applies the icon for these views:

- Edit function keys menu, web interface
- Function keys list, web interface
- Home screen function keys, telephone
- Edit function keys menu, telephone

Further help under Function keys

Adjustment tool

Tool for adjusting the icon's image size and screen window.

Further help under Function keys

Icon Preview

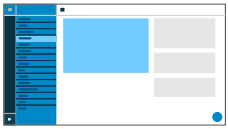
Displays a preview of the final icon.

Further help under Function keys

Using provisioning

Basic Settings
Schedule
SIP provisioning
Additional function templates

Basic Settings



Automatic provisioning

Automatic provisioning is performed according to the schedule and each time the phone is switched on.

Further help under Provisioning

Provisioning with DHCP data

The phone obtains the provisioning server's URL from a DHCP server. Additional data for controlling provisioning can also be transferred along with the URL.

Further help under Provisioning

Redirect server

The phone obtains the provisioning server's URL from the redirect server.

Further help under Provisioning

Provisioning from PBX search

Automatic provisioning of the phone is performed via the PBX.

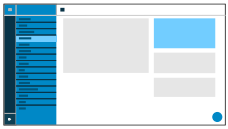
Further help under Provisioning

Provisioning server URL

This URL is required if it is not obtained via DHCP or a redirect server.

Further help under Provisioning

Schedule



Weekdays

The weekdays on which automatic provisioning is carried out.

Further help under Provisioning

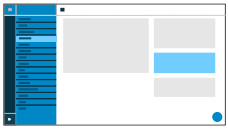
Time

Time at which automatic provisioning is carried out. The time window is 60 minutes.

Note: After a reboot, a random time between 00:00 and 05:00 is entered for provisioning. This prevents load spikes on the server.

Further help under Provisioning

SIP provisioning

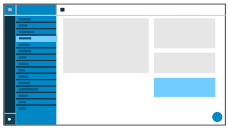


SIP provisioning

Starts remote configuration using SIP messages.

Further help under Provisioning

Additional function templates



Vendor templates

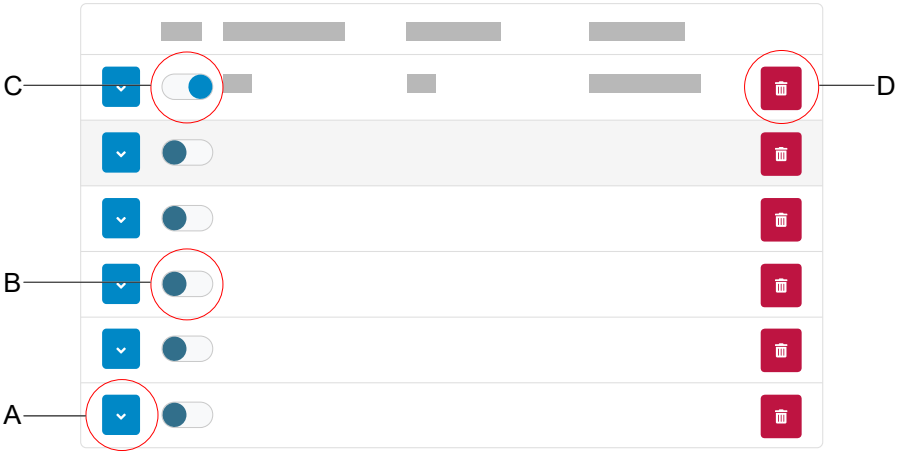
Activates templates and scripts that are specially designed to run on Auerswald/FONtevo PBXs.

Further help under Function templates

Identities

Managing Identities
Basic Settings
Options for experts
Codecs
Registrar
NAT
Outbound proxy

Managing Identities



A. Displays the settings for an identity
B. Disabled identity
C. Activated identity
D. Deletes all the settings for an identity

Basic Settings

Active

Press this to switch on the selected identity.

Further help under Identities

SIP Username

Used to identify the device to the VoIP provider or in the PBX. Identical to the user name assigned by the VoIP provider or the internal phone number registered in the PBX.

Further help under Identities

Password

Used to verify the user name. Identical to the password assigned by the VoIP provider when the identity was being created or the password entered in the PBX.

Further help under Identities

Display Name

Freely selectable name.

The display name is displayed both in the web interface, under the Display name, and on the phone, below the status bar.

If you do not set a display name, the display on the phone contains these elements: SIP-username@SIP-registrar.

Further help under Identities

Authentication Username

Enter the authentication username provided by the VoIP provider.

You need the authentication username when you register with a VoIP provider. If you connect to an Auerswald PBX, you do not need to enter the authentication ID.

Further help under Identities

SIP Registrar

This tells the phone where it can register itself. The information given here is the URL set by the VoIP provider on the IP address on which the registering PBX can be accessed.

Further help under Identities

Ringtone

Assigns a ringtone to the identity.

Further help under Sound

Options for experts

Fallback for

No fallback is possible for the current identity.

Sets the main identity for which the fallback identity applies.

Configured identity: Display **Display name**

Unconfigured identity: Displays the **identity** + seq. no.

Notes: In the case of a main identity, the field is greyed out and displays the entered fallback identity. A fallback identity can also be created for identities that have not yet been configured.

Further help under Fallback identity

CLIR type

(Number presentation suppression)

Area in the From header in which the VoIP provider expects to receive number presentation suppression. Selection as set in the PBX/at the provider.

No display text

A blank display text is sent in the From header.

Anonymous

The sent display text in the From header is "anonymous".

User anonymous

Both the display text and the User name section in the From header contain "anonymous".

Further help under Anonymous call

Voicemail number

Enter the voicemail number assigned by the VoIP provider or the voicemail number entered in the PBX.

Further help under Voicemail number

Pick-up code

This is required to perform a call pick-up. Character string stored on the PBX/at the provider, e.g. **##06** for Auerswald PBXs.

Further help under Pick-Up

Music on hold

If a connection or call is on hold, the "music on hold" is played.

Further help under Music on hold

Framesize

Sets the RTP packet size (msec Audio/RTP package).

Jitter buffer size

Specifies how many RTP packets can be cached to buffer or compensate for disruptions. (40 … 160 msec)

Further help under Identities

IP version

IPv4

Sets IPv4 for the registrar.

IPv6

Sets IPv6 for the registrar.

Auto

Automatically sets the protocol used by the registrar.

Further help under Identities

Interface type

The device can be accessed using the network or via VPN. Devices in one network cannot access devices in the other network. The Interface type sets the network in which the system is to look for devices, for the identity.

Network

Sets the network as the interface.

Further help under Identities

VPN

Sets VPN as the interface type.

Further help under VPN

SRTP

Transport protocol for encrypted connections.

Mandatory

This setting forces voice encryption to be on. If the voice partner (VoIP provider, PBX, external VoIP subscriber) does not support SRTP, the connection is not established.

Preferred

Switches on negotiation for the encryption of call data via SRTP. When a call is made, the call partner will be asked if encryption is possible. If selected, voice data is transmitted in encrypted form. If not selected, it is not encrypted.

Disabled

This setting forces voice encryption to be off. If the voice partner (VoIP provider, PBX, external VoIP subscriber) does not support encryption, the connection is not established.

Further help under SRTP

SIPS

Activates the transmission of encrypted SIP messages over TLS for connections with this identity.

The destination in the invite package header is contacted with an encrypted transmission.

Note: To create a successful, secure connection, a certificate must be provided for the provided host, if necessary.

Further help under SIPS

Further help under Certificates

Peer-to-peer TLS

Forces the encryption of SIP messages over the entire route to the destination.

Note: The call is not made if TLS is not available on the entire connection.

Further help under Identities

Check hostname

Checks whether the certificate belongs to the domain/IP.

Further help under Certificates

Certificate

If the **SIPS** function is activated, the system checks whether the certificate belongs to the domain/IP.

Further help under Certificates

Session timer

Switches on the check after a connection for a call that is still in existence.

Note: When the SIP session timer is switched on, this may result in the call being interrupted more frequently after the specified interval, if a VoIP provider has not implemented session renewal properly. In this case, set a different session timeout or disabled the session timer.

Further help under SIP

Session timeout (in min.)

2 … 255 minutes, default: 15 minutes

Specifies the number of minutes after which the SIP session timer is to check a call's connection.

Further help under SIP

Protocol type

UDP

(the User Datagram Protocol) is used to send data packets over connectionless non-secure communication lines.

TCP

(Transmission Control Protocol) segments data into packets from a specified size and sends these individual data packets to the recipient address until receipt has been confirmed.

Further help under SIP

Important: If encryption is enabled by SIPS, the TCP transport protocol is used. Manual settings are overwritten.

Local SIP port

0 … 65535

Sets the outgoing port for SIP messages.

Note: Enter "0" to generate a random port.

Important: If you define more than one identity, the SIP port for each identity must be different. If you enter "0", different ports are assigned automatically.

Further help under SIP

Subscription interval (min)

This sets the frequency at which the status of potential changes are queried on the PBX. Default: 45 minutes.

The value you enter here should be a compromise between a short interval (which generates traffic) and rapid updates.

Further help under SIP

Codecs

Codecs

Active

Best available quality: G.711, G.722

Best possible compression: G.726, G.729, iLBC

The sequence in which the active codecs are displayed in the list sets the sequence in which they are applied.

Inactive

You can select inactive codecs and drag & drop them in the **Active** list to arrange them, or remove them from the list.

Further help under Codecs

Registrar

Send SIP REGISTER

Switches the registrar on.

Further help under Identities

Realm

Name space that contains all the entries within one directory, specified by the VoIP provider/PBX operator.

Ideally, the **Realm** should be identical to the VoIP provider **SIP-Registrar** or PBX address.

Further help under Identities

Port

The registrar’s port. The (recommended) default value is 5060.

Caution: Different entries can cause malfunctions if the provider makes changes. An SRV query is only possible with the default value.

Caution: Each time a port is opened on the router, this creates a potential security risk. It is essential you put additional protective measures in place.

Further help under Identities

Time lapse registration (min.)

1 … 60 minutes

The registration time is the number of minutes that must elapse before the telephone reregisters itself with the VoIP provider.

The value you enter here should be a compromise between a short timespan (which generates traffic with the provider) and a long re-registration period.

Further help under Identities

NAT

SIP NAT traversal

Requirements:

- configured DNS server
- When the **activated** option is selected: **Registrar** is enabled for the telephone

Active

NAT traversal is performed by the telephone. The SIP request also contains an "rport" part in which the IP addresses used here (local, public) are transported.

Active with STUN

NAT traversal is performed by the telephone. To do this, you must also specify a STUN server.

Caution: Each time a port is opened on the NAT router, this creates a potential security risk. Implement appropriate security measures.

Inactive

NAT traversal is not performed by the telephone. The router which connects the local area network with the Internet should be a properly functioning SIP-aware router which performs NAT traversal.

Further help under NAT

RTP NAT traversal

Requirement:

- configured DNS server

Active with STUN

NAT traversal is performed by the telephone. To do this, you must also specify a STUN server.

Caution: Each time a port is opened on the NAT router, this creates a potential security risk. Implement appropriate security measures.

Note: if there are problems with half-open (dropped) call connections, a STUN server should be used (**Active with STUN**).

Inactive

NAT traversal is not performed by the telephone. The router which connects the local area network with the Internet should be a properly functioning SIP-aware router which performs NAT traversal.

Further help under NAT

STUN server URL

Requirement:

- configured DNS server

Note: The STUN server is used if **Active with STUN** has been selected.

Further help under Identities

STUN server port

1 … 65535

Note: If you encounter problems with half-open (dropped) call connections, enabling the RTP port might help.

Important: Every time port forwarding is performed, there is a security risk. For this reason, we recommend you use port forwarding as little as possible.

Further help under Identities

Time lapse registration (min.)

1 … 60 minutes

The registration time is the number of minutes that must elapse before the telephone reregisters itself with the VoIP provider.

The value you enter here should be a compromise between a short timespan (which generates traffic with the provider) and a long re-registration period.

NAT Keep-Alive Interval (sec.)

After the time specified here has passed, NAT Keep-Alive packets are sent to the firewall to maintain the NAT mapping.

Note: Some providers lock accounts if the NAT Keep-Alive Interval 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).

Further help under Identities

Outbound proxy

Mode

Inactive

Deactivate this function if

- the registrar can be accessed without outbound proxy
- no outbound proxy is available

Automatically

The PBX automatically determines an outbound proxy.

Manually

The outbound proxy is a fixed default setting. Enter this data as an IP address or a URL.

Further help under Outbound proxy

URL

Server address for the outbound proxy.

Note: The **URL** must be added if **Manually** mode is selected.

Further help under Outbound proxy

Port

Port for the outbound proxy.

Note: The **Port** must be added if **Manually** mode is selected.

Further help under Outbound proxy

Alternative URL

Alternative server address for the outbound proxy.

Further help under Outbound proxy

Alternative port

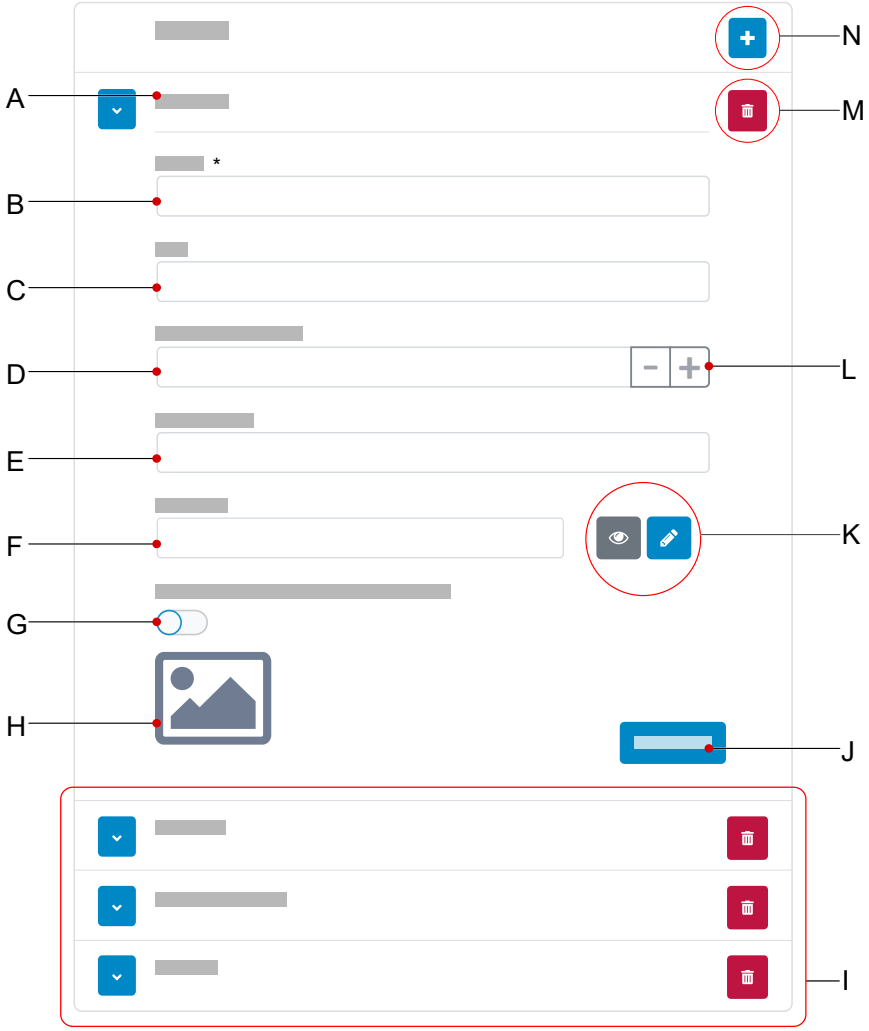
Alternative port for the outbound proxy.

Further help under Outbound proxy

IP camera

Camera management
Settings

Camera management

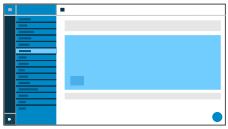


A. Unique name, as assigned under **Name**.

B. **Name**Entry required

C. **URL**
D. **Refresh rate in ms**
E. **Username**
F. **Password**
G. Only transfers the camera image for incoming calls
H. Preview of the configured camera (only if the URL is valid. If not, a placeholder is displayed.)
I. List of other configured cameras
J. Saves the settings.
K. View and edit the password
L. Changes the refresh rate settings in increments of 10 ms
M. Deletes the camera from the list
N. Adds a new camera to the list

Settings



Add camera

Adds another camera to the list. The list is dynamic. You can make settings for any number of cameras.

Further help under Camera

Name

Freely selectable name. The name is used to identify the camera within the telephone.

Further help under Camera

URL

Address from which the camera images are fetched.

Further help under Camera

Refresh rate in ms

Select the refresh rate: at least 100 ms.

Note: The value for the images actually transferred depends on which type of camera is used.

Further help under Camera

Username

Enter the user name, if necessary.

Further help under Camera

Password

Enter the password, if necessary.

Further help under Camera

Use for incoming calls only

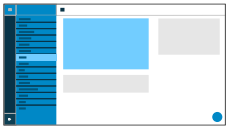
The camera image display is only activated for incoming calls.

Further help under Camera

Update

Basic Settings
Restart and factory reset
Scheduling

Basic Settings



Check for updates

If selected, the phone automatically checks for current updates.

Further help under Update

Automatically install updates

If selected, available updates are installed automatically.

Further help under Update

Update server URL

In the factory settings: https://update.auerswald.de

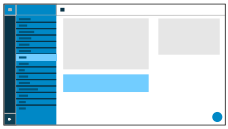
Further help under Update

Start update

Starts installation of a new firmware version.

Further help under Update

Restart and factory reset



Restart

Restarts the telephone.

Caution: This interrupts all connections, all calls and data services. Unsaved data is lost!

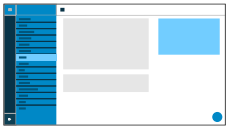
Further help under Update

Factory settings

Resets the phone to the factory settings. Any saved data and settings are deleted. The phone is shut down and then restarted.

Further help under Factory settings

Scheduling



Weekdays

The weekdays on which the phone checks for available updates and installs them.

Further help under Update

Time

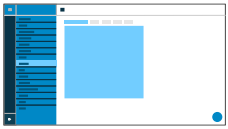
Time at which the phone checks for available updates and installs them.

Further help under Update

Network

Current Settings
IPv4
IPv6
VLAN
VPN

Current Settings



Lists all the network settings made on the phone.

DNS

IP address of the DNS server used here.

Further help under IPv4

IP addresses

Protocol

Shows which network protocol is in use.

IP address

Displays the phone's IP address.

Prefix

Different subnet mask notation.

Example: 24 corresponds to 255.255.255.0

Forwarding routes

Protocol

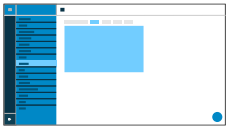
Shows which network protocol is being used by the forwarding route.

Gateway

Displays the IP address of the forwarding route.

If only one router is in use, the DNS's IP address is the same as that of the gateway. If more than one server is being used to handle these tasks, the IP addresses will be different.

IPv4



IPv4 mode

DHCP

The phone obtains its IP address automatically from a DHCP server.

Static

The telephone uses a fixed IP address (supplied by the system administrator).

Disabled

IPv4 can only be disabled if IPv6 is enabled.

Further help under IPv4

IP address

If you select **DHCP**: the phone's IP address is displayed

If you select **Static**: you can enter/change the phone's IP address

In the factory settings: 0.0.0.0.

Further help under IPv4

Subnet mask

Example: 255.255.255.0

Further help under IPv4

Gateway

Example: 192.168.0.2

The gateway provides interoperability between networks, so data can pass from one to another. The provider or the network system administrator provide the gateway.

Further help under IPv4

DNS 1

The DNS server is needed for Internet access. The provider or network system administrator sets the DNS server.

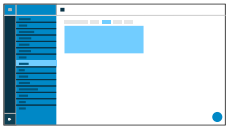
Further help under IPv4

DNS 2

Optional

Further help under IPv4

IPv6



IPv6 mode

DHCP

The phone obtains its IP address automatically from a DHCP server.

Disabled

IPv6 can only be disabled if IPv4 is enabled.

Further help under IPv6

Privacy Extensions

If this function is activated, IPv6 addresses that do not allow the user to be identified are created. The host part of the IPv6 address is anonymised.

Further help under IPv6

DNS 1

The DNS server is needed for Internet access. The provider or network system administrator sets the DNS server.

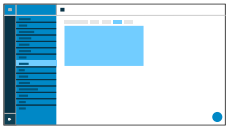
Further help under IPv6

DNS 2

Optional

Further help under IPv6

VLAN



Phone VLAN

Switches on VLAN for the phone.

Further help under VLAN

Phone VLAN ID

Enter the phone's VLAN ID: 1 … 4094

The associated data packets are tagged with this ID.

Further help under VLAN

Phone VLAN priority

0 (lowest priority) to 7 (highest priority)

Further help under VLAN

PC port VLAN

Switches on VLAN for the PC port.

Further help under VLAN

PC port VLAN ID

Enter the PC port's VLAN ID: 1 … 4094

The associated data packets are tagged with this ID.

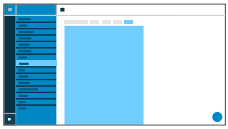
Further help under VLAN

PC port VLAN priority

0 (lowest priority) to 7 (highest priority)

Further help under VLAN

VPN



VPN

Switches on VPN for the phone.

Further help under VPN

VPN type

IPsec Xauth PSK

Authentication is performed using a shared secret and a personal secret.

IPsec Xauth RSA

Authentication is performed using a key pair: one private key and one public key.

IPsec Hybrid RSA

A mixture of **IPsec Xauth PSK** and **IPsec Xauth RSA**

Open VPN

OpenVPN libraries are used to set up a VPN over an encrypted TLS/SSL connection.

L2TP IPsec PSK

IPsec variant performed using the Layer 2 Tunneling Protocol.
Authentication is performed using a shared secret and a personal secret.

L2TP IPsec RSA

IPsec variant performed using the Layer 2 Tunneling Protocol. Authentication is performed using a key pair: one private key and one public key.

Further help under VPN

Name

Freely selectable name for the VPN connection.

Further help under VPN

Server

Server address for the VPN connection.

Your network administrator will give you the server address.

Further help under VPN

User name

User name for the VPN connection.

Your network administrator will give you your user name.

Further help under VPN

Password

Password for the VPN connection.

Your network administrator will give you the password.

Further help under VPN

DNS server

Address of the DNS server used for the VPN connection (e.g. 8.8.8.8).

Your network administrator will give you the DNS server address.

Further help under VPN

Search domain

Search domain addresses for the VPN connection.

Your network administrator will give you the search domain addresses.

Further help under VPN

Forwarding routes

Settings for the network, IP address range (e.g. 10.0.0.0/8).

Your network administrator will give you the IP address range for the forwarding routes.

Further help under VPN

IPsecIdentifier

Caution: IPsecIdentifier settings can vary greatly, depending on which server is in use. The network administrator must predefine the configuration.

Further help under VPN

Preinstalled IPsecSecret

Authentication key.

Further help under VPN

IPsecUserCert

This is generated by the system administrator or by the user.

The IPsecUserCert must fulfil these criteria:

- X.509 standard
- .pem format

Further help under VPN

IPsecUserPrivateKey

This is generated by the system administrator or by the user.

The private key must fulfil these criteria:

- X.509 standard
- .pem format

Further help under VPN

IPsecCaCert

Acts as a "trust anchor" for the connection.

The IPsec CA certificate (IPsecCaCert) must fulfil these criteria:

- X.509 standard
- .pem format

Further help under VPN

IPsec server certificate

Server-side certificate.

The IPsec CA certificate (IPsecCaCert) must fulfil these criteria:

- X.509 standard
- .pem format

Further help under VPN

Open VPN Configuration

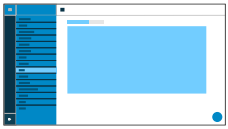
Contents of a configuration file (openvpn.cfg). Component part of setting up an open VPN.

Further help under VPN

LDAP

Basic Settings
LDAP filter

Basic Settings



LDAP protocol

Protocol used on the LDAP server

LDAP

By default, unencrypted data traffic.

LDAP StartTLS

Data traffic encrypted using Transport Layer Security.

LDAPS

LDAP via SSL technology.

Active

Switches on the directory service request.

Further help under LDAP

Server

The LDAP server's domain name or IP address

Further help under LDAP

Port

The LDAP server's port. On PBXs, use the preset port: port 389.

Further help under LDAP

User name

User name assigned when the LDAP server was being configured. Used for identification to the LDAP server.

Note: You can find the user name in your PBX's web interface: select **User data** > **Address Books** > **Settings**. The user name is in the **Simplified user name** line, beside the **User name** (e.g. cn=auerswaldschandelah,dc=auerswald).

Further help under LDAP

Password

This is the password assigned when the LDAP server was being configured. It is used for identification to the LDAP server.

Note: You can find the password in your PBX's web interface: select **User data** > **Address Books** > **Settings**. The password is in the **Simplified user name** line, beside the **Password**.

Further help under LDAP

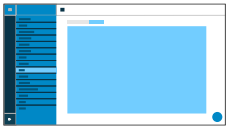
Search area

Point in the folder from which the LDAP search starts.

Example: BaseDN dc=auerswald

Further help under LDAP

LDAP filter



Only experts should make the settings available in the **LDAP** > **LDAP filter** area. LDAP filter syntax is used. RFC 2254 and RFC 4515 are used.

To enable contact data to be transferred from the LDAP server, enter the following values, listed below, in the end device.

Name filter

Sets the name filter used for the LDAP search.

Further help under LDAP

Number filter

Filter for assigning numbers to names for incoming and outbound calls.

Further help under LDAP

Number filter dial preparation

Filter for displaying the suggestions list in dial preparation.

Further help under LDAP

Max LDAP contacts

Sets the max. number of contacts that the LDAP server is to output.

Further help under LDAP

Max. matches

Sets the max. number of search results that the LDAP server is to output.

Further help under LDAP

Name attributes

Relevant name attributes.

Further help under LDAP

Phone number attributes

Relevant phone number attributes.

Further help under LDAP

Sort by

Sorting algorithm (by First name, by Last name)

Further help under LDAP

Name format

Defines the format in which names are displayed (First name first, Last name first).

Further help under LDAP

Number search incoming

If "Number search incoming" is enabled, the display name is searched for via LDAP, for incoming calls.

Further help under LDAP

Number search outgoing

If "Number search outgoing" is enabled, the display name is searched for via LDAP, for outgoing calls.

Further help under LDAP

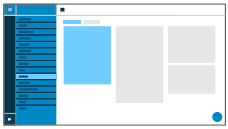
Telephony

Call settings
Call bindings

Call settings

Call signalling
Outgoing calls
Call forwarding
Automatic Answer

Call signalling



Reverse search

For incoming and outbound calls, this option displays the names of saved contacts that are suitable for the phone number.

Call waiting

Indicates an incoming call during a call.

Call waiting tone

This acoustic signal indicates that there is an incoming call during a call.

If this option is disabled, incoming calls are only signalled by a change in the display content during a call.

Do not disturb

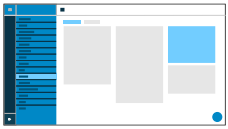
Rejects calls to the phone.

Call Completion

The callback is triggered automatically by the PBX.

Further help under Call Completion

Outgoing calls



Anonymous call

Stops your phone number from being displayed to the person you are calling

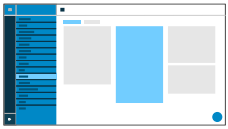
Automatic start of call

The call starts automatically after the predefined time.

Seconds until start of call

You can use the sliding adjuster to set the number of the seconds that the phone waits before making the automatic call.

Call forwarding



Immediately

Forwards incoming calls to the set destination number immediately.

Further help under Call forwarding

On busy

Forwards incoming calls to the set destination number if the subscriber is busy.

Further help under Call forwarding

On no reply

Forwards incoming calls to the set destination number if these calls have not been taken within a set time.

Further help under Call forwarding

Call forwarding destination

Enter the destination number here.

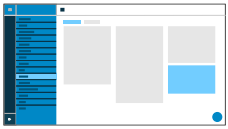
Further help under Call forwarding

Waiting time before call forwarding

Here, set the number of the seconds that the phone waits before activating call forwarding.

Further help under Call forwarding

Automatic Answer



On SIP request

Received calls use an Alert Info header containing `info=alert-autoanswer` to request immediate call acceptance. There is no acoustic signal during incoming calls.

Further help under Automatic answer

After timeout

Sets the number of seconds that the phone waits before automatically taking an incoming call.

Further help under Automatic answer

Call bindings

Name

Freely selectable name.

Further help under Call bindings

Remote party

Select a remote party with whom the binding is to be set up.

To prevent interruptions in the camera image display when call numbers change, you can also use regular expressions (regex) to represent a greater range of call numbers.

Example: The camera is connected with remote party `55`. As the door bell button `55(4)` was being pressed when the call was displayed, there is no camera image. This situation can be prevented in 2 ways:

1. set up another call binding with remote party `554`
2. enter this regular expression `55[1-4]?@.*`

   When you enter this regular expression, these subscriber numbers are recognised as valid: `55`, `551`, `552`, `553`, `554`.
   A camera image would not be displayed for:

   - subscriber numbers with more than 3 digits
   - subscriber numbers that do not start with `55`
   - subscriber numbers with digits outside the range `1 to 4` after `55`

Further help under Call bindings

Camera

Select the camera whose images are to be displayed.

Further help under Camera

Softkeys | key 1/2

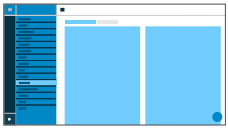
Selects a configured function key.

Further help under Call bindings

Ringtones

Ringtones by call type
Ringtone management

Ringtones by call type



Numbering

Displays the sequential number within the list.

Further help under Sound

Search term

Assigns the selected ringtone to the alert info from the PBX/provider's SIP Invite. Six names are predefined by default.

Further help under Sound

Ringtones by call type

List of possible ringtones. Assign a ringtone to a call type here.

Further help under Sound

Ringtone management

Import

Uploads the selected audio file to the device.

There are two steps in this procedure:

- **Browse**: Displays a dialogue in which you select the required file.
- **Import**: Uploads the selected audio file to the phone.

Note: Max. permitted file size per file: 5MB.

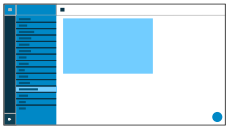
Further help under Sound

Memory utilisation

Displays how much memory is occupied by imported ringtones.

Further help under Sound

Date and Time



NTP

The time is automatically transferred from the NTP server.

If NTP is not enabled, there is no synchronisation between the telephone and the time server. It is possible that the date and time may be displayed incorrectly.

Further help under Date and Time

NTP server

The time server that supplies the time stamp. Use the address of a time server that is geographically close by, to achieve maximum accuracy.

Example: pool.ntp.org

Further help under Date and Time

Time zone

Data on the phone that has a time stamp (such as call history entries, calendar entries and e-mails) is displayed with the correct time.

Further help under Date and Time

Time format

12 h: Time display in 12-hour format. In addition, the time range AM/PM is displayed.

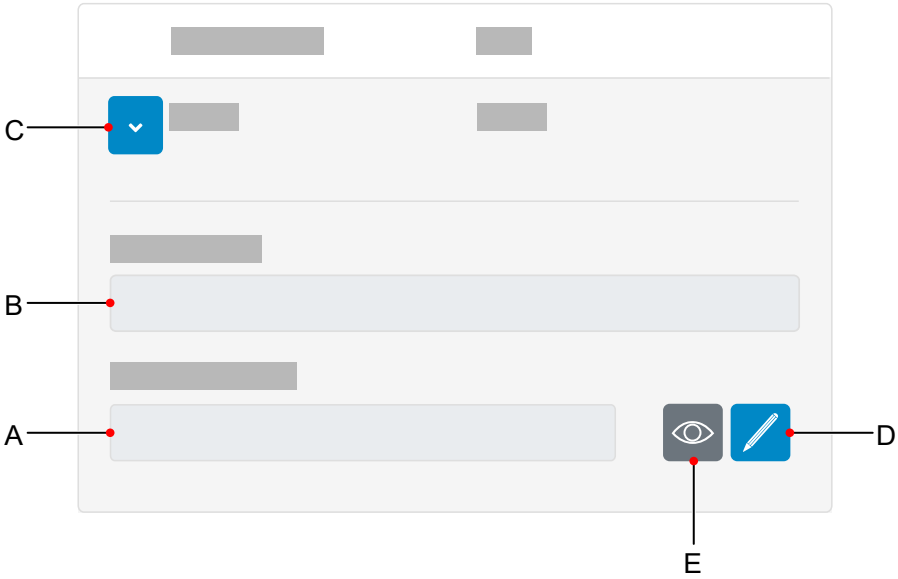
24 h: Time display in 24-hour format.

Further help under Date and Time

User

User administration
Settings

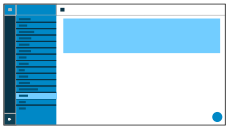
User administration



A. **Password** field
B. **User name** field
C. Displays the settings for a user
D. Click on the Edit icon to assign a new password
E. Displays/hides the currently set password (only in Edit mode)

Note: Currently, there is only one preset user (admin) whose user name and password can be changed.

Settings



User name

Displays the user name.

Note: Do not enter colons "**:**" in the user name.

Further help under User

Password

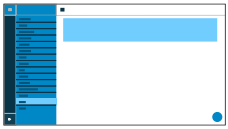
Enter/change the password here.

When you set a new password, comply with the conventions below. The password should:

- be different from the previous one used
- contain at least one number
- contain at least one capital letter
- contain at least one lower case letter
- contain at least one special character
- be at least 9 characters long

Further help under Passwords

Backup and restore



Create backup

Exports all phone settings to an .xml file.

A copy of the file will be saved on the PC.

Note: Depending on the setting for your browser, when you export the file, you will either be prompted to specify where the file will be stored or the file will be saved to your PC's Downloads folder. Example, Mozilla Firefox: **Settings** > **Files and Applications** > **Downloads**.

Further help under Data Backup

Restore backup

Uploads all settings in the saved .xml file to the phone.

There are two steps in the procedure:

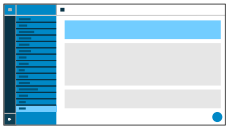
- **Browse**: Displays a dialogue in which you can select a previously saved copy of the phone settings in the appropriate folder on the data storage device.
- **Import**: Uploads the settings from the selected .xml file to the phone.

Further help under Data Backup

Access

Developer options
Action URL
Logging

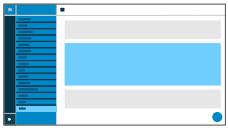
Developer options



Android Debug Bridge (adb)

Enables the PC to access the phone via the software interface. You can then use ADB to execute commands on the Android system.

Action URL



Allow action URLs

Triggers running of action URLs. The device receives HTTP requests from the PC and executes them.

Note: It is not possible to enable the **Allow action URLs** function when the **Web administration (https)** function is inactive.

Further help under Action URL

Action URL server

Required to send events. No entry required if only commands are sent.

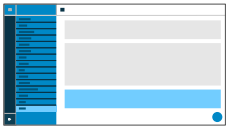
Further help under Action URL

Generate new token

Provides a static password for the phone interface.

Further help under Action URL

Logging



Extended Logging

Enables debug info recording.

Note: In some situations, extended logging can have a negative impact on system performance.

Further help under Logging

Using the Phone

Basic Knowledge
Calls
Contacts
Gallery
Sync
Settings

Basic Knowledge

Gesture control
Display
Notifications
Keys and LEDs
Apps

Gesture control

You can use gesture control to operate the device. This is an alternative to pressing keys, for some functions.

Tapping

Briefly tap the appropriate place on the display with the fingertip to perform one of these functions, depending on the element:

- Select
- Open
- Start
- Mark
- Switch on/off

Dragging/sliding

Vertically (scrolling)

Drag or slide from top to bottom, or from bottom to top, with the fingertip (without letting go)

- to scroll a list quickly
- to scroll web pages.

In some alphabetically sorted lists (e.g. Contacts), a vertical scroll bar is displayed on the right. Drag or slide the scroll bar upwards or downwards to scroll to the required letter.

Drag from the top edge of the display to display notifications. If you drag again, the brightness adjustment slider is displayed.

Diagonally (zoom in/out)

Drag two fingers apart or slide them together to increase or decrease the size of

- web page contents
- images in the Gallery app.

Swiping

Swipe left to right, or right to left, with the fingertip, to

- adjust settings such as for brightness, using the slider
- move between different call lists (all, missed, outgoing)
- delete messages in the notification window.

Display

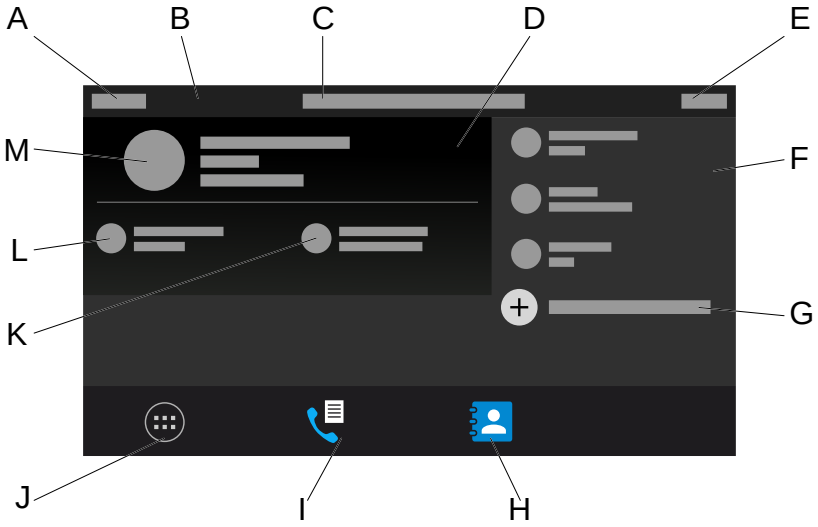
Display overview
Status Line
Status widget
Status bar
Function Keys
System icons
Entry and Selection Fields
Screen keyboard

Display overview

Home
Caller lists
Active conversation
Putting a conversation on hold
Call forwarding
Conference call
Transfer
Call bindings

Home

The next figure shows the telephone display with the Home screen open.

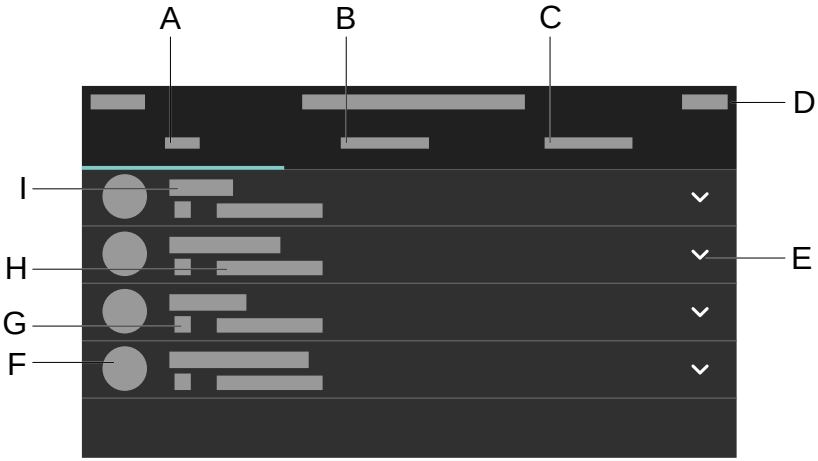


A. Calendar week
B. Status Line
C. Date
D. Status widget
E. Time, system icons
F. Touch function keys
G. Add additional touch function keys
H. Soft icon **Contacts**
I. Soft icon **Call list**
J. Soft icon **Menu**

K. Soft icon **New messages**
L. Soft icon **New Calls**
M. ICH Contact

Caller lists

Overview of call lists



A. **ALL** call history: Lists all calls by how recent they are.
B. **MISSED** call history: Lists all calls, sorted chronologically.
C. **OUTGOING** call history: Lists all outgoing calls, sorted chronologically.
D. Status bar: Displays the Clock date, Clock Time and, if required, other system icons
E. Displays a list containing these options:
   - **Call details**
   - **Edit number before call**
   - **Add to contacts**
   - **Clear entry**
F. Profile picture

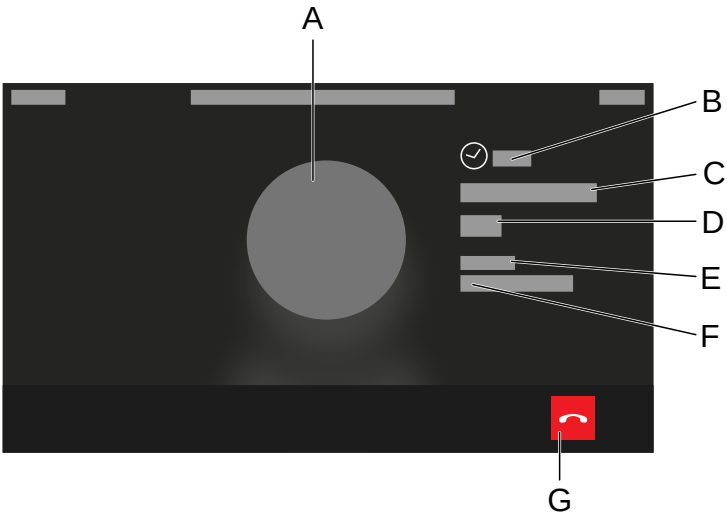
G. Call type icon
H. Call time and date
I. Phone number/Contact

Note: Tap on an entry in the list to dial it. To remove an entry from a call list, use the arrow keys to navigate to the entry and then press Delete ⌫. To delete the entire list contents, press the Delete key ⌫ for approx. 2 seconds and then press **OK** to confirm the screen message you see next. Press Back ↩ to leave the call history.

Details about the settings are in Display

Active conversation

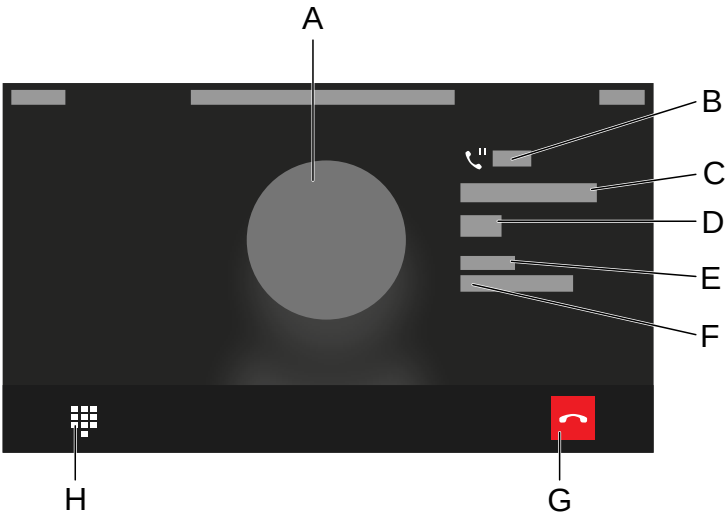
Active conversation between 2 SUBs



A. Contact profile
B. Conversation duration
C. Identity SUB 1
D. Subscriber number SUB 1
E. **Identity**
F. Identity 2
G. Hang up

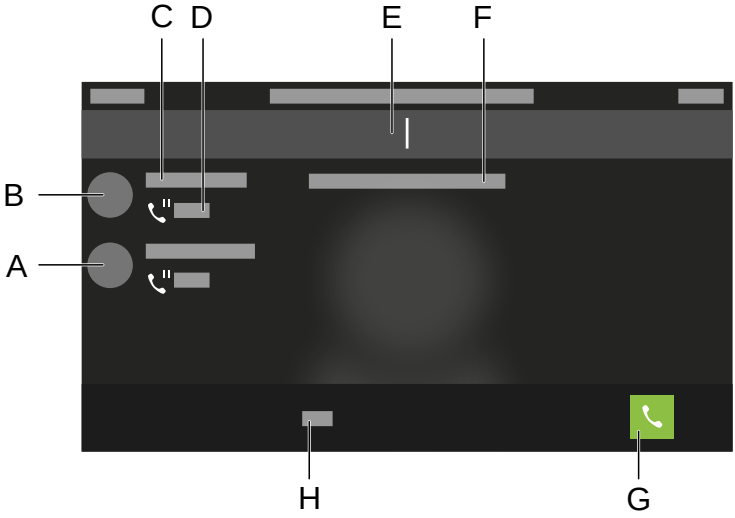
Putting a conversation on hold

Put subscriber 1 on hold



A. Contact profile
B. On-hold duration
C. Identity of SUB put on hold
D. SUB subscriber number put on hold
E. **Identity**
F. Own identity
G. Hang up
H. Changes to the view from which another SUB can be called

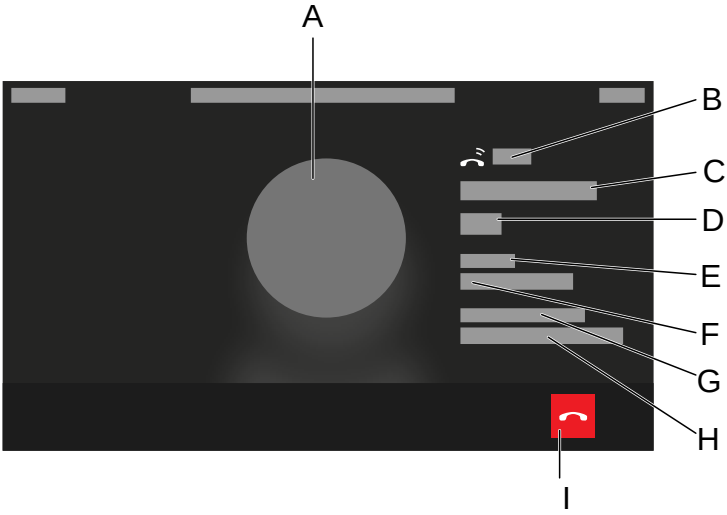
Put participant 2 on hold, participant 1 in call



A. Participant 1
B. Participant 2
C. Contact name
D. Call duration
E. Enter the subscriber number to call a different subscriber
F. Note text
G. Trigger a call
H. Toggle between numerical and alphanumeric entry

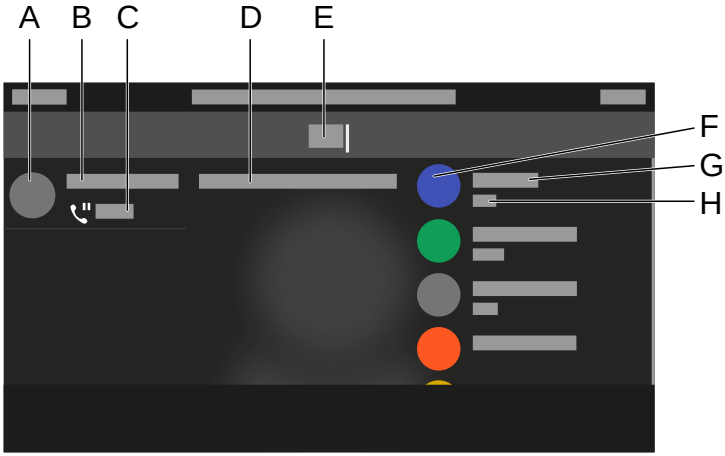
Call forwarding

Own call will be forwarded



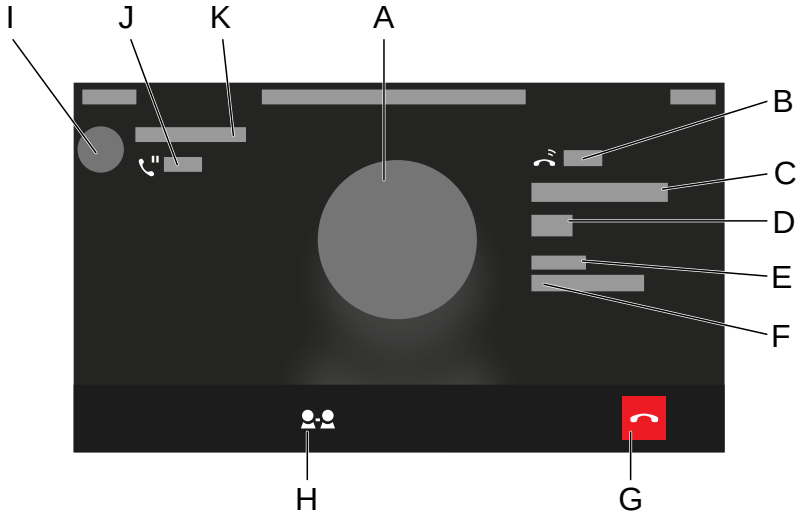
A. Contact profile
B. Call duration
C. Name of the identity to which the call is transmitted
D. Subscriber number of the identity to which the call is transmitted
E. **Identity**
F. Own identity
G. **Redirected via**
H. Redirecting identity with phone number display
I. Hang up

Selects the call forwarding destination



A. Contact profile
B. Identity of the call to be forwarded
C. Duration of the call to be forwarded
D. Note text
E. Call forwarding destination entry
   Suggested contacts, each consisting of:
F. Contact profile
G. Identity name
H. Identity subscriber number

Forwarding an active conversation



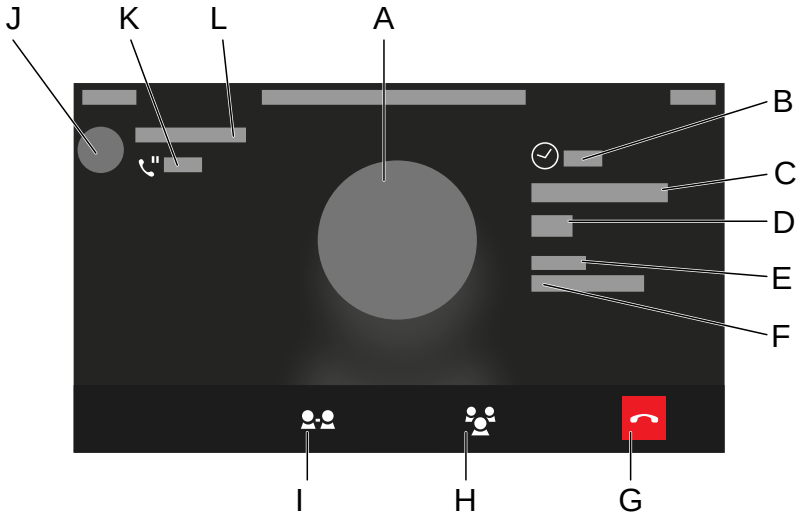
A. Contact profile
B. Duration of call to destination
C. Identity of call to destination
D. Subscriber number of call to destination
E. **Identity**
F. Own identity
G. Hang up
H. Connect partner

   Press the soft key to forward the call without announcement

I. Contact profile of the call to be forwarded
J. Duration of the call to be forwarded
K. Identity of the call to be forwarded

Conference call

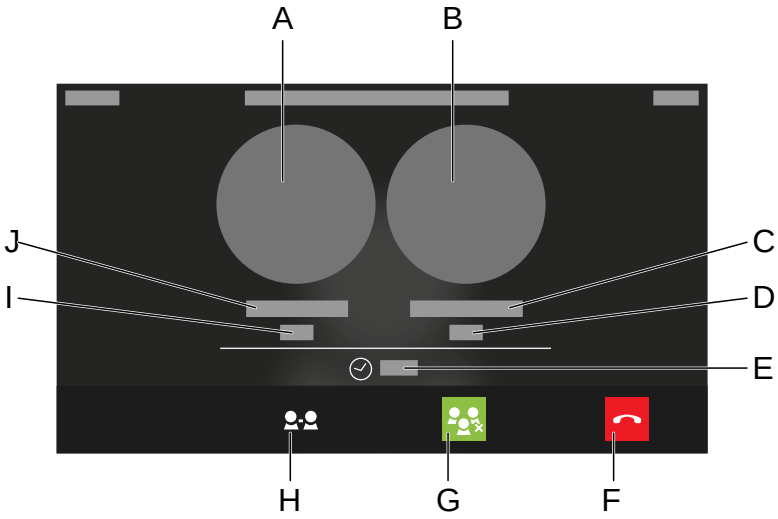
Preliminary conference call setup stage



A. Contact profile
B. Duration of active conversation
C. Identity of the active conversation
D. Subscriber number of active conversation
E. **Identity**
F. Own identity
G. Hang up
H. Conference call setup
I. Connect partner
J. Contact profile of on-hold call
K. Duration of on-hold call

L. Identity of on-hold call

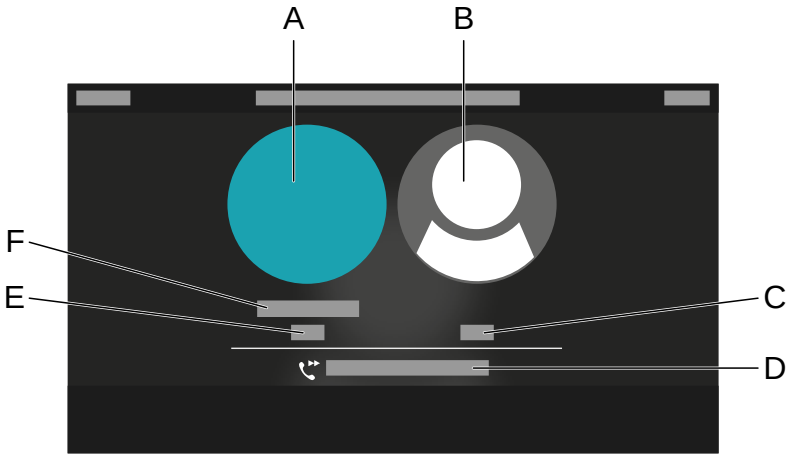
Active conference call



A. Contact profile, conference call participant 1
B. Contact profile, conference call participant 2
C. Identity, conference call participant 2
D. Subscriber number, conference call participant 2
E. Conference call duration
F. Own identity
G. Disconnect conference call
H. Connect partner
I. Subscriber number, conference call participant 1
J. Identity, conference call participant 2

Transfer

Call forwarding using transfer



A. Contact profile of active participant
B. Transfer target contact profile
C. Transfer target subscriber number
D. Transfer status display
E. Subscriber number of active participant
F. Identity of active participant

Call bindings

Call bindings with displayed info and additional remote party

A. Additional calls (e.g. a call on hold)

B. Information about the current remote party

C. End a call

D. Flags for displaying or hiding information about the current remote party

E. Set-up function key that is displayed when an incoming call is received. It provides additional options, in this case, opening a door using the **Relay** function key.

F. These must be present, to display a camera image:

- An IP camera with a valid URL.
- A call that is connected to the IP camera.

Status Line

The telephone's status line displays the following information:

- Calendar week
- Date
- Time

Status widget

The status widget displays the following information:

- Avatar or profile picture
- Device type
- Contact name as assigned in **Contacts** > **ME**
- Display name as assigned in **Identities**
- Missed Calls
- Voice messages

Status bar

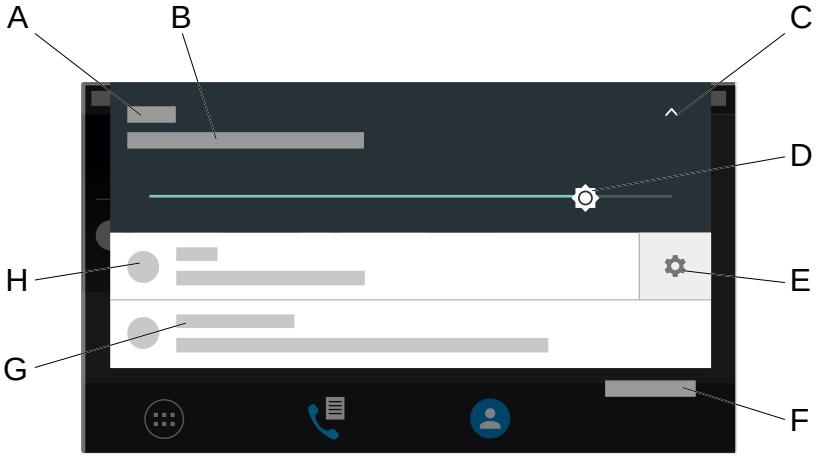
To display the status bar,

- swipe from the top edge of the display to the bottom
- press the Messages key

To hide the status bar,

- swipe from the bottom edge of the display to the top
- press the Back key

The status bar tells the user about the telephone's status at any time.



A. Time
B. Date
C. Hides or displays the slider that is used to set the display brightness
D. Brightness adjuster
E. **Settings icon** for working with notifications

F. Deletes all notifications

Note: Delete all is only displayed when the brightness adjuster is hidden.

G. Notification text

H. Notification icon

Note: If you need to make other notification-related settings, you will find other options in a context menu. Follow these steps to display it:

- Press and hold the notification
- Swipe the notification to the left or right, to display the **Settings icon**. Select the **Settings icon** to open the menu.

Function Keys

Touch function keys

The configured touch function keys are displayed on the top right of the display.

Press these keys to perform configured functions.

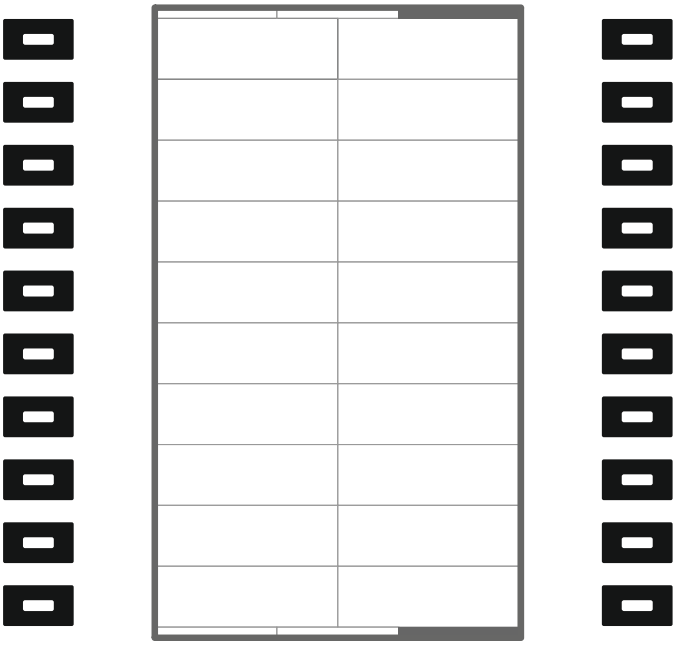
Use the up/down arrow keys or gesture control to scroll through the list, which contains several items.

Details about the settings are in Function keys

Details about the settings are in Edit function keys

COMfortel® D-XT20 key extension module

The number of programmable function keys on the device can be extended by adding up to three COMfortel ® D-XT20 key extension modules (not included in the scope of delivery). Modules are attached to the right-hand side of the phone.



Selecting a key level on the key extension module

Change between key levels by pressing the control rocker.

You can see the current key level on the horizontal scroll bar at the top and bottom edge of the display.

The display content changes according to the selected key level.

System icons

Menu

Call list

Contacts

Add a function key

Function key: **Speed dial**

Function key: **Identity**

 Function key: **Browser**

Function key: **Call forwarding**

Function key: **Call waiting**

Function key: **Anonymous call**

Function key: **Activate config**

Function key: **Do not disturb**

Function key: **Group**

 Function key: **XML Minibrowser**

Function key: **VPN**

Function key: **Relays**

Call forwarding immediately

Call forwarding on no reply

Anonymous call

Do not disturb enabled

Incoming call

Duration of an active call

Active call

Call on hold

Call Completion

Headset

Bluetooth

Accepted call

Missed call

Outgoing call

Unsuccessful outgoing call

Successfully forwarded call

Rerouted call

Call taken externally

Active conference call

Conference call participant

Own device is on hold

Own device is being forwarded

Connect subscriber

Delete numbers

Switch to numerical entry

Switch to alphanumeric entry

Forward call

Successful forwarding of a call

Failure to forward a call

Accepts a call

Reject a call/hang up

Search

Further information

Back/quit search

Add Contact

Contacts

Status icon: **Call**

Status icon: **New message**

Status icon: **Missed call**

update

No account

Warning

Setting the volume

Call details

Edit number before call

Add contact

Delete from list

Open list

Close list

- Identity active
- Identity inactive
- Identity not configured

Entry and Selection Fields

Element	Function
	An empty entry field is displayed, in which you can enter a name, number or address. Tap on the entry field and enter the text or number. You can either use the screen keyboard or the keys on the telephone to enter it. **Notes**: Any text already present in the entry field is overwritten by the text you input. The device is equipped with a T9 dictionary. The dictionary language changes to the language set in the device. You can enter frequently-used words in the dictionary. These words are then displayed as suggestions when you are entering text.
	Option fields for selecting the required setting. The selected setting is marked by a coloured dot. Tap on an option to activate it. The previous selection is disabled at the same time.
	Check boxes for enabling or disabling settings and functions. An empty check box means "inactive". A selected check box means "active". To change a check box's state, tap on it.
	Use the sliders to make infinitely variable settings (e.g. brightness or volume settings). The slider's position shows where the setting is. The further the slider is to the left, the lower the value that is set. The further the slider is to the right, the higher the value that is set.

Screen keyboard

A. Marked text

B. Insertion marks

   To change the marking, move the marks left or right.

C. **CUT**

   Copies the selected text to the clipboard and removes it from the current view.

D. **COPY**

   Copies the selected text to the clipboard.

E. **SELECT ALL**

   Selects the entire text in the entry field.

F. Shift key

   Switches between upper and lowercase letters.

G. Changes between numerical and alphanumeric entry.

H. Space bar

I. Confirms the entry and returns to the main menu.

J. Deletes the entry character by character.

K. Keyboard

Numerical or alphanumeric, depending on current setting.

L. **FINISHED**

Confirms the entry and returns to the main menu.

Display/hide the screen keyboard

You can display or hide the screen keyboard as required for text entry fields.

To do so, press # for approximately 2 seconds.

Notifications

Note: The options and displays provided in the Notifications menu option are identical to those for the message key ✉.

Further help under Dedicated function keys

One missed call

Select to open the list **Calls** > **Missed**.

A new voice message

The mailbox is called and the dialler is displayed.

Follow the spoken instructions to find out what to do next.

Keys and LEDs

Keypad
Dedicated function keys
Clear, Home, Back
Directional pad and OK
LED signalling on function keys
Casing LED
Changing the input mode

Keypad

Use the keypad to dial subscriber numbers and to enter numbers and letters. Press the digit keys one or more times until the required character appears. The assignment is then listed in the table below. The characters available vary according to the language configured for the device.

Key	Assignment
1	1-/@
2	a b c 2 A B C
3	d e f 3 D E F
4	g h i 4 G H I
5	j k l 5 J K L
6	m n o 6 M N O
7	p q r s 7 P Q R S
8	t u v 8 T U V
9	w x y z 9 W X Y Z
0	Spacer . , 0 + : ‘ \ “ ? ¿ ! ¡ _
*	* ( ) [ ] < = > « » ^ ´ ` ~ { }
#	# % & § £ $ €

Dedicated function keys

Messages with LED

- Displays these lists:
  - Voice messages
  - Missed calls

Note: You can configure how the LED on the message key works by selecting **Settings** > **Display and LED** > **Seen missed calls**/**Heard voice messages**.

Microphone with LED

- Switches the microphone off (mute) or on again.
- LED is shining red: Microphone is disabled.

Hold with LED

- You can put an active call on hold or reconnect it again.

Redialling

- Displays the outgoing calls list.

Headset with LED

- Press the Headset key to enable or disable the headset.
- LED is shining green: Headset operation is active.
- LED is flashing green: Inbound call.
- LED is shining red: There is an active call in the headset.

Transfer without LED

- You can transfer calls with or without prior notification.

[−] Minus

- Reduces the volume of the ringer, receiver, or loudspeaker, depending on operational state.

[🔊] Loudspeaker with LED

- LED is flashing green: Inbound call.
- LED is flashing red: Loudspeaker listening is enabled.
- LED is shining red: Hands-free calling is enabled.

[+] Plus

- Increases the volume of the ringer, receiver, or loudspeaker, depending on operational state.

Clear, Home, Back

Clear

- Press this to delete the last character in front of the cursor.

Home

- Press this to display the home screen. Previously started actions will continue in the background.

Back

- Press this to return to the most recently opened menu and end the current action.

Directional pad and OK

Use the directional pad to navigate in the display.

Use the directional pad direction keys to start operation and activate required elements in lists and menus. Press OK [OK] on the directional pad to select an activated element and execute the element's function.

LED signalling on function keys

Each LED indicates the status depending on the key definition.

Function	LED display	Status
Speed dial	Shining red	Outgoing call from speed dial number or currently active conversation on speed dial number
	Flashing red	Inbound call to the speed dial number
	Flashing green	Missed call from speed dial number
	Off	No active calls or conversations
Identity	Shining green	Active, registered identity, default identity
	Shining yellow	Inactive identity
	Flashing yellow	Unregistered identity
	Shining red	Inactive default identity
	Flashing red	Unregistered default identity
	Off	Active, registered identity, not a default identity
Call waiting	Shining green	Function is enabled
Do not disturb	Shining red	Function is enabled
Anonymous call	Shining green	Function is enabled
Call forwarding on busy	Shining green	Function is enabled
	Flashing red	Function key is in use, no destination number
Call forwarding on no reply	Shining green	Function is enabled

Function	LED display	Status
	Flashing red	Function key is in use, no destination number
Call forwarding immediately	Shining green	Function is enabled
	Flashing red	Function key is in use, no destination number
VPN	Shining green	Function is enabled
XML Minibrowser	None	Performs the stored functions
Switch relay	Flashing green (approx. 2 sec.)	Relay has been switched
Group	Shining green	Logged into the group
	Off	Logged out of the group
Activate config	Shining green	Active configuration
	Off	Inactive configuration
From device version COMfortel® D-400		
Browser	None	Calls the set page in the browser

Casing LED

The Casing LED indicates the following statuses:

- Flashing red (quickly): Incoming call
- Shining red: Active call

Changing the input mode

If you want to use the keypad to enter data in fields, press and hold (for approx. 2 seconds) to toggle the input mode (abc < > 123).

Apps

All Apps
Installing Additional Apps

All Apps

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

	Displays a selection list containing settings for configuring the device.
	You can view and process downloads performed with the browser.
	F-Droid is an alternative app store for the Android mobile operating system. Only free software is offered on it, usually with a GNU GPL or Apache license.
	Runs an app for viewing and managing pictures.
	Runs an app for displaying image sequences from the installed IP cameras.
	K-9 Mail is a free e-mail programme for the Android mobile operating system. The software is supplied under an Apache license and is available as an app from Google Play Store, F-Droid and the official website, among others.
	Opens the calendar with the dates overview. You can enter new dates or date series.
	Displays the contact list.
	Runs an app for listening to and managing music.
	Runs a calculator app with standard calculation types: addition, subtraction, multiplication and division.
	Runs an app for synchronising contacts and calendar entries.

	Displays the call list.
	Runs an app for showing the time on the display. You can also activate an alarm clock or use a stopwatch function.

Installing Additional Apps

You can install additional apps from the FDroid App Store . To enable this, the installation of additional apps must be permitted.

Further help under Apps

To install an app:

1. Press **Apps** Use **Menu** > **Settings** > **Apps**
2. Select permission to install apps.
3. Close the menu.
4. Open FDroid App Store . .
5. Select the app you want in the list.
6. Press . **Install**.
7. Follow the additional instructions for the particular app.

   Installed apps are listed in the installed apps overview.

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 install apps and files from trustworthy sources.

Calls

Navigation
Options

Navigation

Further help under Display overview

All

Press this to list all calls in chronological order.

Missed

Press this to list all missed calls by how recent they are.

Outgoing

Press this to list all outgoing calls by how recent they are.

Options

Trigger a call

Tap on the phone number/contact to start a call.

Display options

˅ Displays the list with all available options.

Call details

Displays additional details about the selected call:

- Call type icon
- Contact/phone number
- call type
- Date
- Time
- Call duration

Edit number before call

Displays the previously selected phone number. You can then modify the number by selecting:

- Clear
- Complete

Add contact

Jumps to the **Add Contact** menu.

Details about the settings are in Edit Contact

Clear entry

Deletes the selected entry in the Call history.

Note: Alternatively, you can delete entries in the caller list by pressing Delete ⌫. To delete the entire list, press the ⌫ button for approx. 2 seconds.

Using the Call History in Different Ways

1. Select an entry in the call history.
2. Press and hold OK OK for approx. 2 seconds.
   The options described in the "Menu" topic are listed.
3. Select any required options.

Contacts

Navigation
Edit Contact

Navigation

Favourites

Lists all the contacts that are marked as Favourites (identified by a star).

All

Lists all contacts in a sorted sequence. The sorting procedure you select defines the sorting sequence.

Options

⋮ Displays these options:

- **Displayed contacts**
- **Manage accounts**

  Displays the settings for LDAP

Details about the settings are in Contacts/LDAP

- **Settings**

  Here, you can modify the selected sorting process.

Delete

Deletes one or more contacts.

To delete a single contact, follow these steps:

1. Tap on the contact to open it.

   All the data stored for the contact is displayed.

2. Profile picture > ⋮ > **DELETE**
3. Confirm the action.

To delete one or more contacts, follow these steps:

1. Press the contact to be deleted for approximately 2 sec.
   A column with a check box is displayed.
2. Select the contact you want to delete.
3. ⋮ > **DELETE**
4. Confirm the action.

Search

🔍 Displays a search field. Use the screen keyboard that is now displayed to search for names, parts of names or numbers.

Add Contact

Changes the menu, so you can create a new contact.

Edit Contact

Name

Enter a name using the

- keypad or
- screen keyboard.

˅ You can then display or edit more details for the name.

Phone

Enter a phone number using the

- keypad or
- screen keyboard.

˅ You can then display or edit more details for the number.

E-mail

Enter an e-mail address using the

- keypad or
- screen keyboard.

˅ You can then display or edit more details for the e-mail address.

Other fields

Enter more information for the contact using the

- keypad or

- screen keyboard.

˅ You can then display or edit more details for the contact.

Save

✓ Saves the contact data locally in the telephone.

Gallery

More options

Displays options for performing more editing on the selected image, and displaying it.

Set picture as

- **Wallpaper**: The selected image is used as the wallpaper in the display.
- **Contact photo**: The selected photo is assigned an icon from the contact list.

Further help under Wallpaper

Sync

Accounts
Global options

Accounts

List of all set-up accounts.

Further help under Sync

Configure Sync

Opens the Sync configuration function.

Sync Interval

Select the Sync Interval

- **Periodic auto sync**

  (every 2 hours)

- **Sync on display switch-on**

  (Synchronises when the display is switched on, but not more frequently than 1x every 5 minutes.)

Note: By default, both options are preselected.

Data service settings

Select the data service that is used for synchronisation:

- **Use cellular networks**
- **Sync over WiFi**
- **Sync over Bluetooth**
- **Sync over Ethernet**
- **Sync over WiMAX**

- **Sync over other connections**

Note: By default, all data services are preselected.

Further help under Sync

Add account

Adds a new account to the list.

Further help under Sync

Remove account

Select the account that is to be removed from the list of set-up accounts.

Note: Deletes all contacts and calendar entries associated with this account, on the device.

Further help under Sync

Import contacts

Imports addresses for the selected account.

Further help under Sync

Global options

Debug options

Use the options below to specify which status messages are to be sent:

- **Report broken events**
- **Enable error reports**
- **Report connection errors**
- **Log to file**

Further help under Sync

About

Displays this information:

- The current app version
- **Support**
- **Contact**

Further help under Sync

Settings

Network
Identities
Bluetooth
Sound
Language and location
Display and LED
Telephony
Function keys
Camera
Update
Provisioning
Access
Apps
Date and Time
Contacts/LDAP
About phone

Network

Current Settings
IPv4 Settings
IPv6 Settings
VLAN
VPN

Current Settings

The current settings will be shown.

IPv4 Settings

IPv4 mode

DHCP

The phone obtains its IP address automatically from a DHCP server.

Static

The telephone uses a fixed IP address (supplied by the system administrator).

Disabled

IPv4 can only be disabled if IPv6 is enabled.

Further help under IPv4

IP address

If you select **DHCP**: the phone's IP address is displayed

If you select **Static**: you can enter/change the phone's IP address

In the factory settings: 0.0.0.0.

Further help under IPv4

Subnet mask

Example: 255.255.255.0

Further help under IPv4

Gateway

Example: 192.168.0.2

The gateway provides interoperability between networks, so data can pass from one to another. The provider or the network system administrator provide the gateway.

Further help under IPv4

DNS 1

The DNS server is needed for Internet access. The provider or network system administrator sets the DNS server.

Further help under IPv4

DNS 2

Optional

Further help under IPv4

IPv6 Settings

IPv6 mode

DHCP

The phone obtains its IP address automatically from a DHCP server.

Disabled

IPv6 can only be disabled if IPv4 is enabled.

Further help under IPv6

Privacy Extensions

If this function is activated, IPv6 addresses that do not allow the user to be identified are created. The host part of the IPv6 address is anonymised.

Further help under IPv6

DNS 1

The DNS server is needed for Internet access. The provider or network system administrator sets the DNS server.

Further help under IPv6

DNS 2

Optional

Further help under IPv6

VLAN

Phone VLAN

Switches on VLAN for the phone.

Further help under VLAN

Phone VLAN ID

Enter the phone's VLAN ID: 1 … 4094

The associated data packets are tagged with this ID.

Further help under VLAN

Phone VLAN priority

0 (lowest priority) to 7 (highest priority)

Further help under VLAN

PC port VLAN

Switches on VLAN for the PC port.

Further help under VLAN

PC port VLAN ID

Enter the PC port's VLAN ID: 1 … 4094

The associated data packets are tagged with this ID.

Further help under VLAN

PC port VLAN priority

0 (lowest priority) to 7 (highest priority)

Further help under VLAN

VPN

VPN

Switches on VPN for the phone.

Further help under VPN

User name

User name for the VPN connection.

Your network administrator will give you your user name.

Further help under VPN

Password

Password for the VPN connection.

Your network administrator will give you the password.

Further help under VPN

Identities

Identities Management
Basic Settings
Options for experts

Identities Management

Displaying settings

1. Select an identity in the list.
2. Tap it or confirm with OK [OK] to open the identity.

Settings are displayed in the individual menu options.

Note: You can only display settings for set-up identities.

Further help under Identities

Creating a new identity

1. Select an unconfigured identity (**---**) in the list.
2. Press OK [OK] to confirm your selection.
3. Make settings as described in **Identities**.

A new identity is added to the list.

Further help under Identities

Clearing an identity

1. Select the identity you want to clear in the list.
2. Press 🗑

Further help under Identities

Important: All settings made for the selected identity are deleted without asking you to confirm. If you back up the settings for an identity to a data storage device first, you can restore them if required.

Basic Settings

Active

Press this to switch on the selected identity.

Further help under Identities

SIP Username

Used to identify the device to the VoIP provider or in the PBX. Identical to the user name assigned by the VoIP provider or the internal phone number registered in the PBX.

Further help under Identities

SIP Registrar

This tells the phone where it can register itself. The information given here is the URL set by the VoIP provider on the IP address on which the registering PBX can be accessed.

Further help under Identities

Password

Used to verify the user name. Identical to the password assigned by the VoIP provider when the identity was being created or the password entered in the PBX.

Further help under Identities

Display Name

Freely selectable name.

The display name is displayed both in the web interface, under the Display name, and on the phone, below the status bar.

If you do not set a display name, the display on the phone contains these elements: SIP-username@SIP-registrar.

Further help under Identities

Authentication Username

Enter the authentication username provided by the VoIP provider.

You need the authentication username when you register with a VoIP provider. If you connect to an Auerswald PBX, you do not need to enter the authentication ID.

Further help under Identities

Options for experts

Registrar
SIP
NAT
Function codes
Audio
Security
Outbound-Proxy
Interface
Fallback for
Ringer Tone

Registrar

Send SIP REGISTER

Switches the registrar on.

Further help under Identities

Realm

Name space that contains all the entries within one directory, specified by the VoIP provider/PBX operator.

Ideally, the **Realm** should be identical to the VoIP provider **SIP-Registrar** or PBX address.

Further help under Identities

Port

The registrar's port. The (recommended) default value is 5060.

Caution: Different entries can cause malfunctions if the provider makes changes. An SRV query is only possible with the default value.

Caution: Each time a port is opened on the router, this creates a potential security risk. It is essential you put additional protective measures in place.

Further help under Identities

Time lapse registration (min.)

1 … 60 minutes

The registration time is the number of minutes that must elapse before the telephone reregisters itself with the VoIP provider.

The value you enter here should be a compromise between a short timespan (which generates traffic with the provider) and a long re-registration period.

Further help under Identities

SIP

Session timer

Switches on the check after a connection for a call that is still in existence.

Note: When the SIP session timer is switched on, this may result in the call being interrupted more frequently after the specified interval, if a VoIP provider has not implemented session renewal properly. In this case, set a different session timeout or disabled the session timer.

Further help under SIP

Session timeout (in min.)

2 … 255 minutes, default: 15 minutes

Specifies the number of minutes after which the SIP session timer is to check a call's connection.

Further help under SIP

Protocol type

UDP

(the User Datagram Protocol) is used to send data packets over connectionless non-secure communication lines.

TCP

(Transmission Control Protocol) segments data into packets from a specified size and sends these individual data packets to the recipient address until receipt has been confirmed.

Further help under SIP

Important: If encryption is enabled by SIPS, the TCP transport protocol is used. Manual settings are overwritten.

Further help under SIP

Local SIP port

0 … 65535

Sets the outgoing port for SIP messages.

Note: Enter "0" to generate a random port.

Important: If you define more than one identity, the SIP port for each identity must be different. If you enter "0", different ports are assigned automatically.

Further help under SIP

Subscription interval (min)

This sets the frequency at which the status of potential changes are queried on the PBX. Default: 45 minutes.

The value you enter here should be a compromise between a short interval (which generates traffic) and rapid updates.

Further help under SIP

NAT

SIP NAT traversal

Requirements:

- configured DNS server
- When the **activated** option is selected: **Registrar** is enabled for the telephone

Active

NAT traversal is performed by the telephone. The SIP request also contains an "rport" part in which the IP addresses used here (local, public) are transported.

Active with STUN

NAT traversal is performed by the telephone. To do this, you must also specify a STUN server.

Caution: Each time a port is opened on the NAT router, this creates a potential security risk. Implement appropriate security measures.

Inactive

NAT traversal is not performed by the telephone. The router which connects the local area network with the Internet should be a properly functioning SIP-aware router which performs NAT traversal.

Further help under Identities

RTP NAT traversal

Requirement:

- configured DNS server

Active with STUN

NAT traversal is performed by the telephone. To do this, you must also specify a STUN server.

Caution: Each time a port is opened on the NAT router, this creates a potential security risk. Implement appropriate security measures.

Note: if there are problems with half-open (dropped) call connections, a STUN server should be used (**Active with STUN**).

Inactive

NAT traversal is not performed by the telephone. The router which connects the local area network with the Internet should be a properly functioning SIP-aware router which performs NAT traversal.

Further help under Identities

STUN server URL

Requirement:

- configured DNS server

Note: The STUN server is used if **Active with STUN** has been selected.

Further help under Identities

STUN server port

1 … 65535

Note: If you encounter problems with half-open (dropped) call connections, enabling the RTP port might help.

Important: Every time port forwarding is performed, there is a security risk. For this reason, we recommend you use port forwarding as little as possible.

Further help under Identities

Time lapse registration (min.)

1 … 60 minutes

The registration time is the number of minutes that must elapse before the telephone reregisters itself with the VoIP provider.

The value you enter here should be a compromise between a short timespan (which generates traffic with the provider) and a long re-registration period.

Further help under Identities

NAT Keep-Alive Interval (sec.)

After the time specified here has passed, NAT Keep-Alive packets are sent to the firewall to maintain the NAT mapping.

Note: Some providers lock accounts if the NAT Keep-Alive Interval 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).

Further help under Identities

Function codes

Pick-up code

This is required to perform a call pick-up. Character string stored on the PBX/at the provider, e.g. **##06** for Auerswald PBXs.

Further help under Pick-Up

Voicemail number

Enter the voicemail number assigned by the VoIP provider or the voicemail number entered in the PBX.

Further help under Voicemail number

CLIR type

(Number presentation suppression)

Area in the From header in which the VoIP provider expects to receive number presentation suppression. Selection as set in the PBX/at the provider.

No display text

A blank display text is sent in the From header.

Anonymous

The sent display text in the From header is "anonymous".

User anonymous

Both the display text and the User name section in the From header contain "anonymous".

Further help under Anonymous call

Audio

Framesize

Sets the RTP packet size (msec Audio/RTP package).

Jitter buffer size

Specifies how many RTP packets can be cached to buffer or compensate for disruptions. (40 … 160 msec)

Further help under Identities

Music on hold

If a connection or call is on hold, the "music on hold" is played.

Further help under Music on hold

Codecs

Press this to display the codecs in the sequence in which they are used.

If you select a codec, you can replace it with a different codec, or none at all.

Best available quality: G.711, G.722

Best possible compression: G.726, G.729, iLBC

Note: Codecs that are assigned multiple times are automatically removed from the list and replaced with **---**.

Further help under Codecs

Security

SIPS active

Enables the encrypted transfer of signalling data.

Further help under SIPS

Further help under Certificates

Further help under Identities

Peer-to-peer TLS

Forces the encryption of SIP messages over the entire route to the destination.

Note: The call is not made if TLS is not available on the entire connection.

Further help under Identities

SRTP

Transport protocol for encrypted connections.

Mandatory

This setting forces voice encryption to be on. If the voice partner (VoIP provider, PBX, external VoIP subscriber) does not support SRTP, the connection is not established.

Preferred

Switches on negotiation for the encryption of call data via SRTP. When a call is made, the call partner will be asked if encryption is possible. If selected, voice data is transmitted in encrypted form. If not selected, it is not encrypted.

Disabled

This setting forces voice encryption to be off. If the voice partner (VoIP provider, PBX, external VoIP subscriber) does not support encryption, the connection is not established.

Further help under SRTP

Further help under Identities

Certificate

If the **SIPS** function is activated, the system checks whether the certificate belongs to the domain/IP.

Note: For each device variant, simply shows whether a certificate is installed and where processing can take place, if relevant.

Further help under Identities

Further help under Certificates

Check hostname active

If this function is activated, the system checks whether the certificate belongs to the domain/IP.

Further help under Identities

Further help under Certificates

Outbound-Proxy

Mode

Inactive

Deactivate this function if

- the registrar can be accessed without outbound proxy
- no outbound proxy is available

Automatically

The PBX automatically determines an outbound proxy.

Manually

The outbound proxy is a fixed default setting. Enter this data as an IP address or a URL.

Further help under Outbound proxy

URL

Server address for the outbound proxy.

Note: The **URL** must be added if **Manually** mode is selected.

Further help under Outbound proxy

Port

Port for the outbound proxy.

Note: The **Port** must be added if **Manually** mode is selected.

Further help under Outbound proxy

Alternative URL

Alternative server address for the outbound proxy.

Further help under Outbound proxy

Alternative port

Alternative port for the outbound proxy.

Further help under Outbound proxy

Interface

Network

Activates the network (LAN/WLAN) as an interface for the device.

Further help under Network

VPN

Activates the VPN as an interface for the device.

Further help under VPN

Fallback for

No fallback

No fallback is possible for the current identity.

Further help under Fallback identity

Configured/Unconfigured identity

Sets the main identity for which the fallback identity applies.

Configured identity: Display **Display name**

Unconfigured identity: Displays the **identity** + seq. no.

Note: A fallback identity can also be created for identities that have not yet been configured.

Further help under Fallback identity

Ringer Tone

Ringtone

Assigns a ringtone to the identity.

Further help under Sound

Bluetooth

Switch-on

Switches on communication with nearby Bluetooth devices.

Further help under Bluetooth

Available

Displays the closest Bluetooth-enabled devices.

Further help under Bluetooth

Connecting/disconnecting a device

Tap on a device to display a dialogue in which you can set up or disconnect the connection you want.

Further help under Bluetooth

⋮ update

Refreshes the list of available Bluetooth devices.

Further help under Bluetooth

⋮ Show received files

Here, you can modify the selected sorting process.

Further help under Bluetooth

Paired devices

Displays these settings:

- **Name**
- **Use for**

  Select the type of use dependent on paired device.

Further help under Bluetooth

Sound

Procedure for selecting a ringtone:

- If you hover over a ringtone, the system plays it.
- If you confirm a selected ringtone, this enables it.

Default ringtone

Assigns a ringtone to inbound calls. This ringtone can be set individually so the user can identify different call types → **Ringtones by call type**.

Further help under Sound

Default notification

Assigns a ringtone to notifications (e.g. callback on busy).

Further help under Sound

Default alarm

Assigns a ringtone to wake-up calls. This can be set individually for each wake-up call → Clock app.

Further help under Sound

Ringtones by call type

Opens a list of six predefined default names.

Select an entry in the list to open another menu in which you can assign a ringtone to the call type.

Search term

Alert info from the PBX/provider’s SIP Invite.

Ringtone

Assigns a ringtone to the alert info from the PBX/provider’s SIP Invite.

Further help under Sound

Language and location

Phone language

Changes the language used on the phone user interface.

Further help under Language and Location

Location

Sets the phone's actual or required location.

Audio frequencies (pitches, pulse/pause characters and/or ringing tones), and also the time and time format, are different for each selected location.

Further help under Language and Location

Web interface language

Changes the language used in the web interface.

Further help under Language and Location

Display and LED

Idle state

After the selected time, the phone is automatically returned to the idle state.

- **Not automatically**

  The phone is not automatically returned to the idle state.

Further help under Idle state

Brightness

Sets the brightness.

Note: Any changes you make to the brightness affect on all key extension modules that are connected.

Further help under Display and LED

Seen missed calls

Sets the message key LED's reaction to seen missed calls.

- **LED lights up**

  The message key LED shines and a text message is displayed in the Notifications menu.

- **LED is flashing**

  The message key LED flashes and a text message is displayed in the Notifications menu.

- **LED off**

  The message key LED does not flash and a text message is displayed in the Notifications menu.

- **Disabled**

  The message key LED does not flash and no text message is displayed in the Notifications menu.

Further help under Display and LED

Heard voice messages

Sets the message key LED's reaction to heard voice messages.

- **LED lights up**

  The message key LED shines and a text message is displayed in the Notifications menu.

- **LED is flashing**

  The message key LED flashes and a text message is displayed in the Notifications menu.

- **LED off**

  The message key LED does not flash and a text message is displayed in the Notifications menu.

- **Disabled**

  The message key LED does not flash and no text message is displayed in the Notifications menu.

Further help under Display and LED

Message key LED

Controls the behaviour of the message key LED. If this option is deselected, the message key LED are switched off permanently.

Further help under Display and LED

Reset wallpaper

Removes the current wallpaper and replaces it with the default wallpaper.

Further help under Wallpaper

Telephony

Call waiting
Audible indication
Do not disturb
Call forwarding
Anonymous call
Reverse search
Automatic start of call
Automatic Answer
Call Completion
Call bindings

Call waiting

Call waiting

Indicates an incoming call during a call.

Audible indication

Call waiting tone

This acoustic signal indicates that there is an incoming call during a call.

If this option is disabled, incoming calls are only signalled by a change in the display content during a call.

Further help under Call waiting

Do not disturb

Do not disturb

Rejects calls to the phone.

Call forwarding

Immediately

Forwards incoming calls to the set destination number immediately.

Further help under Call forwarding

Call forwarding destination

Enter the destination number here.

Further help under Call forwarding

On busy

Forwards incoming calls to the set destination number if the subscriber is busy.

Further help under Call forwarding

Call forwarding destination

Enter the destination number here.

Further help under Call forwarding

On no reply

Forwards incoming calls to the set destination number if these calls have not been taken within a set time.

Further help under Call forwarding

Call forwarding destination

Enter the destination number here.

Further help under Call forwarding

Waiting time before call forwarding

Here, set the number of the seconds that the phone waits before activating call forwarding.

Further help under Call forwarding

Anonymous call

Anonymous call

Stops your phone number from being displayed to the person you are calling

Reverse search

Reverse search

For incoming and outbound calls, this option displays the names of saved contacts that are suitable for the phone number.

Automatic start of call

Automatic start of call

The call starts automatically after the predefined time.

Seconds until start of call

You can use the sliding adjuster to set the number of the seconds that the phone waits before making the automatic call.

Automatic Answer

On SIP request

Received calls use an Alert Info header containing `info=alert-autoanswer` to request immediate call acceptance. There is no acoustic signal during incoming calls.

Further help under Automatic answer

After timeout

Sets the number of seconds that the phone waits before automatically taking an incoming call.

Further help under Automatic answer

Call Completion

Call Completion

The callback is triggered automatically by the PBX.

Further help under Call Completion

Call bindings

Add

Creates a new call binding.

Name

Freely selectable name.

Further help under Call bindings

Remote party

Select a remote party with whom the binding is to be set up.

To prevent interruptions in the camera image display when call numbers change, you can also use regular expressions (regex) to represent a greater range of call numbers.

Example: The camera is connected with remote party `55`. As the door bell button `55(4)` was being pressed when the call was displayed, there is no camera image. This situation can be prevented in 2 ways:

1. set up another call binding with remote party `554`
2. enter this regular expression `55[1-4]?@.*`

   When you enter this regular expression, these subscriber numbers are recognised as valid: `55`, `551`, `552`, `553`, `554`.
   A camera image would not be displayed for:

   - subscriber numbers with more than 3 digits
   - subscriber numbers that do not start with `55`
   - subscriber numbers with digits outside the range `1 to 4` after `55`

Further help under Call bindings

Camera

Select the camera whose images are to be displayed.

Further help under Call bindings

Softkeys | key 1/2

Selects a configured function key.

Further help under Call bindings

Function keys

Managing function keys
Edit function keys
Edit parameters

Managing function keys

Choose a key

Selects a key for adjusting settings.

Further help under Function keys

Add entry

Adds a new entry to the end of the list.

Further help under Function keys

Clear

Deletes the marked function key in the list.

Further help under Function keys

Insert

Adds an entry to the list, above the marked position.

Further help under Function keys

Edit

Opens a dialogue in which parameters can be configured for the selected key.

Further help under Function keys

Edit function keys

Function

Selects the function and displays the necessary parameters.

Note: To use additional function templates, activate the Auerswald/ Fontevo templates.

Further help under Function templates

Details about the settings are in Edit parameters

Key label

Displayed beside each function key on the screen.

Clear

Deletes the marked function key in the list.

Cancel

Closes the menu without adopting changes.

Save

Saves the entered parameters and close the window.

Edit parameters

Speed dial
Identity
Call waiting
Do not disturb
Browser
DTMF-Relay
Group
Group (incoming)
Group (outgoing)
Activate config
Anonymous call
Call forwarding on busy
Call forwarding on no reply
Call forwarding immediately
Call forwarding ext. calls: On busy
Call forwarding ext. calls: On no reply
Call forwarding ext. calls: Immediately
VPN
XML Minibrowser
Automatic configuration switching

Speed dial

Number/URI

Enter a phone number or address such as 198@192.168.XX.YY or 198@company.com, here.

Further help under Speed dial

Identity

Identity for which this function is set up.

Further help under Identities

Subscription

Activates the sending of BLF subscriptions to the PBX.

Note: It may be a good idea to deactivate subscriptions in situations when it is necessary to prevent the PBX from being overloaded by high volumes of transmitted data.

Pickup

Activates the Pickup function.

Note: Pickup only works if the Subscription function is activated.

Note: Pickup should not be used if the key is only used to switch functions in the PBX using a programming code. Deactivate Pickup in that case.

Further help under Pick-Up

Identity

Identity

Identity used to trigger subsequent calls.

Further help under Identities

Call waiting

No parameters necessary.

Further help under Call waiting

Do not disturb

Identity

Identity for which this function is set up.

Further help under Identities

Further help under Do not Disturb

Browser

Number/URI

Web server address

Further help under Apps

DTMF-Relay

DTMF sequence

Numbers needed to perform the required function.

Further help under Function templates

Group

Identity

Identity for which this function is set up.

Further help under Identities

Group

Group telephone number

Further help under Function templates

Group (incoming)

Identity

Identity for which this function is set up.

Further help under Identities

Group

Group telephone number

Further help under Function templates

Group (outgoing)

Identity

Identity for which this function is set up.

Further help under Identities

Group

Group telephone number

Further help under Function templates

Activate config

Identity

Identity for which this function is set up.

Further help under Identities

Configuration id

The PBX assigns the configuration ID automatically.

Further help under Function templates

Anonymous call

No parameters necessary.

Further help under Anonymous call

Call forwarding on busy

Identity

Identity for which this function is set up.

Further help under Identities

Note: Only assign the Identity parameter if PBX function templates are used.

Further help under Function templates

Destination

Call forwarding destination

Further help under Call forwarding

Call forwarding on no reply

Identity

Identity for which this function is set up.

Further help under Identities

Note: Only assign the Identity parameter if PBX function templates are used.

Further help under Function templates

Destination

Call forwarding destination

Further help under Call forwarding

Call forwarding immediately

Identity

Identity for which this function is set up.

Further help under Identities

Note: Only assign the Identity parameter if PBX function templates are used.

Further help under Function templates

Destination

Call forwarding destination

Further help under Call forwarding

Call forwarding ext. calls: On busy

Identity

Identity for which this function is set up.

Further help under Identities

Call forwarding for external calls

Point-to-multipoint connection: External phone numbers (MSN, see PBX configuration), for which call forwarding is to be performed.

PTP connection: Header plus extension for which call forwarding is to be performed.

Destination

Call forwarding destination

Further help under Function templates

Call forwarding ext. calls: On no reply

Identity

Identity for which this function is set up.

Further help under Identities

Call forwarding for external calls

Point-to-multipoint connection: External phone numbers (MSN, see PBX configuration), for which call forwarding is to be performed.

PTP connection: Header plus extension for which call forwarding is to be performed.

Destination

Call forwarding destination

Further help under Function templates

Call forwarding ext. calls: Immediately

Identity

Identity for which this function is set up.

Further help under Identities

Call forwarding for external calls

Point-to-multipoint connection: External phone numbers (MSN, see PBX configuration), for which call forwarding is to be performed.

PTP connection: Header plus extension for which call forwarding is to be performed.

Destination

Call forwarding destination

Further help under Function templates

VPN

No parameters necessary.

Further help under Network

XML Minibrowser

Number/URI

Web server address

Further help under XML Minibrowser

Automatic configuration switching

Identity

Identity for which this function is set up.

Further help under Identities

ID

Identification number for system relay with Automatic configuration switchover operating mode (900, in the factory settings).

Further help under Function templates

Camera

Add camera

Adds another camera to the list. The list is dynamic. You can make settings for any number of cameras.

Further help under Camera

Name

Freely selectable name. The name is used to identify the camera within the telephone.

Further help under Camera

URL

Address from which the camera images are fetched.

Further help under Camera

Refresh rate in ms

Select the refresh rate: at least 100 ms.

Note: The value for the images actually transferred depends on which type of camera is used.

Further help under Camera

Username

Enter the user name, if necessary.

Further help under Camera

Password

Enter the password, if necessary.

Further help under Camera

Use for incoming calls only

The camera image display is only activated for incoming calls.

Further help under Camera

Update

Start update

Starts the update.

Further help under Update

Check for updates

If selected, the phone automatically checks for current updates.

Further help under Update

Automatically install updates

If selected, available updates are installed automatically.

Further help under Update

Update server URL

In the factory settings: https://update.auerswald.de

Further help under Update

Restart

Restarts the telephone.

Caution: This interrupts all connections, all calls and data services. Unsaved data is lost!

Further help under Update

Factory settings

Resets the phone to the factory settings. Any saved data and settings are deleted. The phone is shut down and then restarted.

Further help under Factory settings

Provisioning

Start provisioning

Starts manual provisioning.

Automatic provisioning

Automatic provisioning is performed according to the schedule and each time the phone is switched on.

Further help under Provisioning

Provisioning with DHCP data

The phone obtains the provisioning server's URL from a DHCP server. Additional data for controlling provisioning can also be transferred along with the URL.

Further help under Provisioning

Redirect server

The phone obtains the provisioning server's URL from the redirect server.

Further help under Provisioning

Provisioning from PBX search

Automatic provisioning of the phone is performed via the PBX.

Further help under Provisioning

Provisioning server URL

This URL is required if it is not obtained via DHCP or a redirect server.

Further help under Provisioning

Vendor templates

Activates templates and scripts that are specially designed to run on Auerswald/FONtevo PBXs.

Further help under Function templates

Access

Extended Logging

Enables debug info recording.

Note: In some situations, extended logging can have a negative impact on system performance.

Further help under Logging

Web administration (https)

Activates access to the web interface.

Note: You cannot call the web interface if this function is inactive.

Android Debug Bridge (adb)

Enables the PC to access the phone via the software interface. You can then use ADB to execute commands on the Android system.

Password web interface

Displays the password entry/modification dialogue for the web interface.

Note: When you define the password, comply with the conventions for secure passwords.

Further help under Passwords

Allow action URLs

Triggers running of action URLs. The device receives HTTP requests from the PC and executes them.

Note: It is not possible to enable the **Allow action URLs** function when the **Web administration (https)** function is inactive.

Further help under Action URL

Action URL server

Required to send events. No entry required if only commands are sent.

Further help under Action URL

Apps

F-Droid

Activates the display and use of F-Droid.

Note: If the function is not activated, the app is not displayed in the overview of installed apps.

Further help under Apps

K-9 Mail

Activates the display and use of K-9 Mail.

Note: If the function is not activated, the app is not displayed in the overview of installed apps.

Further help under Apps

Firefox Klar

Activates the display and use of Firefox Klar.

Note: If the function is not activated, the app is not displayed in the overview of installed apps.

Further help under Apps

Date and Time

NTP

The time is automatically transferred from the NTP server.

If NTP is not enabled, there is no synchronisation between the telephone and the time server. It is possible that the date and time may be displayed incorrectly.

Further help under Date and Time

NTP server

The time server that supplies the time stamp. Use the address of a time server that is geographically close by, to achieve maximum accuracy.

Example: pool.ntp.org

Further help under Date and Time

Time format

12 h: Time display in 12-hour format. In addition, the time range AM/PM is displayed.

24 h: Time display in 24-hour format.

Further help under Date and Time

Time zone

Data on the phone that has a time stamp (such as call history entries, calendar entries and e-mails) is displayed with the correct time.

Further help under Date and Time

Contacts/LDAP

Active

Switches on the directory service request.

Further help under LDAP

Max LDAP contacts

Sets the max. number of contacts that the LDAP server is to output.

Further help under LDAP

Max. matches

Sets the max. number of search results that the LDAP server is to output.

Further help under LDAP

Sort by

Sorting algorithm (by First name, by Last name)

Further help under LDAP

Name format

Defines the format in which names are displayed (First name first, Last name first).

Further help under LDAP

Number search incoming

If "Number search incoming" is enabled, the display name is searched for via LDAP, for incoming calls.

Further help under LDAP

Number search outgoing

If "Number search outgoing" is enabled, the display name is searched for via LDAP, for outgoing calls.

Further help under LDAP

About phone

Device name

The name you assign to the device.

Further help under Device information

Model

Displays your device's model details.

Serial number

Displays your device's serial number.

Keypad serial number

Displays the serial number of the keyboard PCB installed on your device.

Build number

Displays the build number of the software version installed on the device.

MAC address

Displays your device's physical address on the network.

Android version

Displays the Android version installed on your device.

Kernel version

Displays the kernel version in use on your device.

Update system version

Displays the update system version in use on your device.

Bootloader version

Displays the bootloader version in use on your device.

Licenses

Here, you can display the following license information:

- End User License Information (EULA)
- Android Licenses
- Licenses webserver
- Licenses webclient

Further help under Device information

Glossary

Technical Terms and Functions
Abbreviations

Technical Terms and Functions

Account
Bootloader
Browser
Build number
Call Deflection
Client
Codec
DHCP
DNS
Domain
Downdate
DTMF
EHS
End Device
Ethernet
Firewall
Firmware
Frame size
Gateway
Host
HTTPS
IMAP
IP Address
IPsec
IPv4

IPv6
Jitter Buffer
LDAP
LED
MAC
NAT
NAT Traversal
NTP
Open-Source License
PoE
POP3
Port
Provisioning
Redirect Server
Registrar
Router
RTP
Rubber cover
Server
SIP
SIP-Port
SIPS
SLAAC
SMTP-Server
STUN
Subnet mask
Switch

TCP

TLS

UDP

Update

Update-Server

URI

URL

VLAN

VoIP

VoIP Account

VoIP Address

VoIP Provider

VPN

Dial Preparation

XML

Certificate

Account

Authorisation to access a VoIP provider or a VoIP PBX. Users must identify themselves by logging in with a username and a password.

Bootloader

Special software, loaded from a bootable data medium by the firmware and then executed. The Bootloader then loads other parts of the operating system, including usually a kernel.

Browser

Special software to display websites from the Internet.

Build number

The build number is a sequential number, automatically assigned during a build process. The build number is part of the software version number.

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.

Client

Piece of computer hardware or software that accesses a service made available by a server.

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 depends on the codec used.

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.

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.

DTMF

Dual Tone Multi Frequency dialling – dialling method that transmits the dialled number to the exchange as two superimposed sinusoidal signals.

EHS

Electronic Hook switch: a device that connects a wireless (Bluetooth or DECT standard) headset with the phone, electronically, making particular functions available on the headset. Phone calls can be controlled entirely from the headset, via EHS: conversations can be accepted or ended directly on the headset, conversations can be split between the headset and phone and the phone can be muted. Additional features can be implemented, depending on product.

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 developed by the companies INTEL, DEC and Xerox.

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.

Frame size

Sets the RTP packet size (msec Audio/RTP package).

Gateway

PC or router that acts 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.

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.

HTTPS

Hypertext Transfer Protocol Secure – communication protocol for tap-proof data transfer with encryption within the World Wide Web.

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

IPv4 addresses consist of four numbers between 0 and 255 that are separated by a full stop, 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 operating 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 kind of sender or recipient address cannot be sent over the Internet. However, they can be used in local networks without restriction. The benefit 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.

IPv6

IPv6 addresses consist of eight blocks, each containing four numbers or letters, and each separated by a colon e.g. 3001:00FF:ABC0:0EAC:0001:0000:0000:000F or, in short form, 3001:FF:ABC0:EAC:1::F.

Thanks to the longer address format, IPv6 offers a greater number of possible IP addresses than the Internet Protocol Version 4 (IPv4).

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.

LDAP

Lightweight Directory Access Protocol – protocol that 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).

MAC

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.

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.

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.

Open-Source License

Software license acknowledged by the Open Source Initiative (OSI). Open-source licenses are the basis of free-of-charge applications whose programming code may be modified without restrictions.

PoE

Power over Ethernet (PoE) is a method by which small devices in a network, for example, VoIP telephones, receive both power and data via an Ethernet cable. Benefit: Fewer obtrusive power cables are required.

PoE is described in the IEEE 802.3af standard.

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) from a provisioning server.

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 domain name registrar is an organisation or company that registers Internet domains.

A SIP registrar tells the phone where it can register itself. The information given here is the URL set by the VoIP provider on the IP address on which the registering PBX can be accessed.

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.

RTP

Transport Protocol – a transport protocol that guarantees complete data transport in real time, especially of audio/video data, for which a packet loss of 1 to 20% is acceptable, depending on the codec in use. RTP does not guarantee the service quality of the data transfer.

Rubber cover

Rubber cover which must be removed before the key extension module can be mounted.

Server

Computer or software that performs different tasks as part of a network and, for example, provides other users (clients) of this network with specific information, data or 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.

SIPS

Session Initiation Protocol Secure – SIPS are SIP data encrypted using the TLS protocol. The network protocol sets up a communication session between two or more subscribers. The provider encrypts external connections to prevent listening in. The processes used to set up and shut down a connection, and signalling, are all encrypted by SIPS.

SLAAC

Stateless Address Autoconfiguration – process for automatically and statelessly configuring IPv6 addresses on a network interface. "Stateless" means that the IPv6 address is not assigned and stored centrally. The host generates its own IPv6 address, using additional information as an aid. SLAAC is the further development of "classic" processes for IP auto configuration in IPv4. IPv6 routers have an active role, unlike those in IPv4. IPv6 offers the same convenience as operating a very simple DHCP server.

SMTP-Server

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.

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.

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).

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.

URI

Uniform Resource Identifier. Used to uniquely identify every single item in the World Wide Web, irrespective of whether it is a page with text, a video, a sound file, a moving image, a static image or a programme.

A URI usually describes:

- the mechanism used to access a resource
- the specific computer on which the resource is present
- the specific name of the resource (or the file name) on the computer

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...“).

VLAN

Virtual Local Area Network. This is a virtual network within a local network.

VLAN-enabled switches ensure that data packets within the subnet are not forwarded to a different VLAN, although the subnets might be connected to shared switches.

Among other things, a VLAN can be used to keep IP telephony separate from normal network traffic, at network level.

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 Address

VoIP telephone number plus domain, separated by the @ character: <subscriber>@domain.

VoIP Provider

Internet service provider offering internet telephony (VoIP, Voice over Internet Protocol).

VPN

Ein VPN (Virtual Private Network) bindet entfernte oder benachbarte Netzwerke (LAN) über einen VPN-Tunnel in das eigene Netzwerk ein. Der Tunnel dient dabei als Hülle, in der die Daten eingebettet von einem zum anderen Netzwerk transportiert werden.

Dial Preparation

Dialling of a number before a call is initiated by lifting the receiver.

XML

Extensible Markup Language – a markup language used to display hierarchically structured data, in a text file.

XML data can be opened and edited in an editor. Computers can also read and write XML format. XML consists of tags which are enclosed by pointed brackets: "<" ">". Unlike XML, HTML has only one fixed set of tags, such as, for example <h1>, or <li>. You can define your own custom tags in XML. The standard only defines what a tag must look like, not what it means. Tags can be nested, enabling a hierarchy to be created.

A Document Type Definition (DTD) describes the structure and grammar used in documents. It is an XML system component and is enabled by default.

Certificate

Digital key issued by a Certification Authority (CA) to ensure the authentication and secure transmission of e-mails, web sites, etc.

Abbreviations

AM		Answering machine
ARA	Auerswald Remote Access	
CLIR	Calling Line Identification Restriction	Phone number is not displayed if that is appropriate
CTI	Computer Telephony Integration	
DHCP	Dynamic Host Configuration Protocol	
DNS	Domain Name Service	
DSL	Digital Subscriber Line	
DTMF	Dual Tone Multi Frequency	
ESMTP	Extended Simple Mail Transfer Protocol	
HTML	Hypertext Markup Language	
HTTP	Hypertext Transfer Protocol	
IMAP	Internet Message Access Protocol	
IP	Internet Protocol	
IPsec	Internet Protocol Security	
IPv4	Internet Protocol Version 4	
IPv6	Internet Protocol Version 6	
ISDN	Integrated Services Digital Network	
LAN	Local Area Network	

LDAP	Lightweight Directory Access Protocol	Protocol for easy access to directory server
LED	Light-emitting diode	
MAC	Media Access Control	
NAT	Network Address Translation	
NTP	Network Time Protocol	
PBX	Private Branch Exchange	Private PBX
PoE	Power over Ethernet	
POP3	Post Office Protocol, Version 3	
RTP	Real-Time Transport Protocol	
SIP	Session Initiation Protocol	
SIPS	Session Initiation Protocol Secure	
SLAAC	Stateless Address Autoconfiguration	
SMTP	Simple Mail Transfer Protocol	
SRTP	Secure Real-Time Transport Protocol	
SSL	Secure Sockets Layer	
STUN	Simple Transversal of UDP over NATs	
TCP	Transmission Control Protocol	
TLS	Transport Layer Security	
UDP	User Datagram Protocol	
URI	Uniform Resource Identifier	

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

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Instructions

You will find the Operating Manual and the Quick Guide on our web site. After an update, you usually require a new version of the instructions. You will find these on our website.