

COMfortel D-400

Operation Instructions



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About ...

About ...

[Current version 2.10](#)

[The product COMfortel D-400](#)

[The product COMfortel D-XT20i](#)


[The product COMfortel D-XT-PS](#)

[The product COMfortel D-Mount](#)

[These Instructions](#)

Current version 2.10

The new or revised functions below have been published with this Release.

-  You will find more information about changes to the firmware and the associated documentation at [Auerswald Support](#) / [FONtevo Support](#).

Display

The silent ringtone now also appears as an icon in the status bar.

-  Further help under [Display \(Home screen\)](#)

OpenVPN

Update

Service


Operating hours counter in the telephone: **Settings > About phone**

VPN status now also provided in the web interface: **Dashboard or Network > Current Settings**

-  Further help under [Service functions, problem solving](#)

Silent Alert

The function now also includes the option of starting a 'silent' alarm call to any telephone number.

 Further help under [Silent Alert](#)

Support provider

uaCSTA support

Additional settings: **Network > Topology > Compact SIP headers** and **No TCP for UDP**

Web interface

Various improvements

The product COMfortel D-400

The product COMfortel D-400

Scope of Delivery

Proper Use

Safety information

Technical data

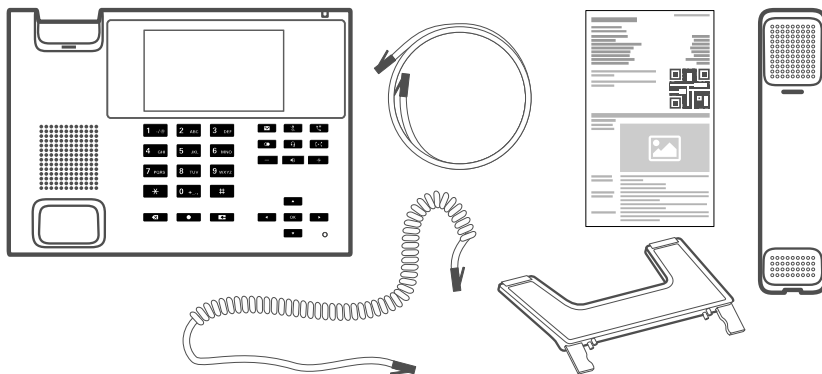
Initial Commissioning

Device Overview

Legal

Scope of Delivery

COMfortel D-400



Proper Use

The COMfortel D-400 is a VoIP phone for connection to Ethernet network. The phone is not cordless and is intended for use in enclosed, dry spaces.

i Note: To ensure interference-free operation, some local functions are not available on the terminals after provisioning by a cloud PBX (e.g. COMuniq ONE). A cloud PBX transmits new configuration files to the phones at regular intervals. Data stored locally on the phone can be deleted or reset.

Safety information

To ensure that you are able to use the COMfortel D-400 safely and without faults, comply with the notes below. Improper use may, for example, cause functional restrictions, destruction of the device or, in a worst case scenario, personal injury. You will find any necessary additional warning notices about using the device in the relevant sections.

Read the instructions for the device and keep them for future reference.

Connecting Safely

Connect the device as described in these Instructions. Take note of the technical data on the type plate and in these Instructions. Only connect the device's connection cables to wall sockets that are designed for that purpose, and that have been properly installed. Arrange for a qualified electrician to install all the cables inside the building.

Only use original accessories and original replacement parts. Non-approved headsets, external loudspeakers, or receivers, may cause hearing damage or interfere with the voice connection. Take note of the technical information about connecting a headset.

Location characteristics

Only operate the telephone in enclosed, dry spaces.

Never cover the device.

Falling objects can damage the glass on the display. Put the device somewhere where it is protected against falling objects.

Limitations on Use

Never use a damaged device.

Do not touch the device during an electrical storm.

Never use the device in life-support systems or nuclear facilities. The device can only be used for these purposes with prior written permission/clarification from the manufacturer in each individual case.

Necessary Knowledge for Configuration

Incomplete or incorrect configuration can create a personal hazard e.g. because emergency calls cannot be made.

The product is configured using the telephone or an integrated web server whose pages are accessed using a web browser.


The associated help is provided in English, German or French. If you are not familiar with these languages, and the technical terms that are used, seek support from someone who has the necessary technical and language skills.

Repair

Do not open the device. Only the manufacturer is permitted to open the device and repair it.

If the display is damaged, be careful when handling and packing the device. There is a risk of injury.

Cleaning

 **Warning:** Liquids penetrating the casing can damage or destroy the device.

- Only clean the device with a dry cloth.

Technical data

COMfortel D-400

Operating voltage	Supply via the Ethernet port using PoE in compliance with IEEE 802.3af. (If there is no PoE supply on the network, use a COMfortel PoE-100 or COMfortel PoE-1000, available as an accessory.)
PoE class	Class 0 (identified on the type plate)
Power consumption	Min. 2.2 W, max. 12.9 W
System connection	10/100/1000 Tx Ethernet
2nd Ethernet port	10/100/1000 Tx Ethernet
VoIP codecs	G.711 A-law, μ -Law, G.722 (wideband), G.726, G.729, iLBC
2 USB ports	A USB port is provided for the COMfortel D-XT20 / COMfortel D-XT20i key extension module
Displays	6 polychromatic LEDs, illuminated colour graphic display, 480 × 272 pixels, backlight
User elements	Keypad, 12 dedicated function keys, directional pad, touchscreen with glass surface
Handset	Wideband audio, electret microphone, dynamic receiver loudspeaker, hearing aid-compatible

Technical data

Headset	Separate interface for dynamic headsets, also with DHSG (wireless headset) support
Telephone hook	Magnetic switch contact
Casing	Plastic material, black or white
Size (W × H × D)	238 mm × 125/160 mm × 145/195 mm
Weight	761 g
Temperature	Operation: 0 to 40°C, storage: -30 to +70°C, non-condensing
Security	CE

Technical Data for Headset Connections

Microphone current consumption	max. 0.5 mA
Microphone sensitivity	-43 dB
Loudspeaker impedance	100 Ohms
Loudspeaker sensitivity at 1 kHz	19.5 +/- 3 dBPa/V
Sound level threshold	24 dBPa

Initial Commissioning

Installing the device feet

Connecting the telephone

Commissioning with provisioning

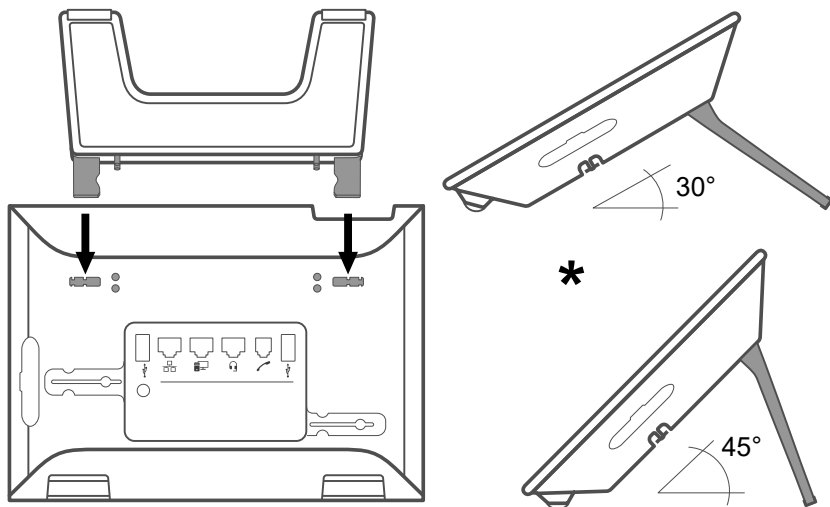
Manual commissioning on the PBX

Manual commissioning at the provider

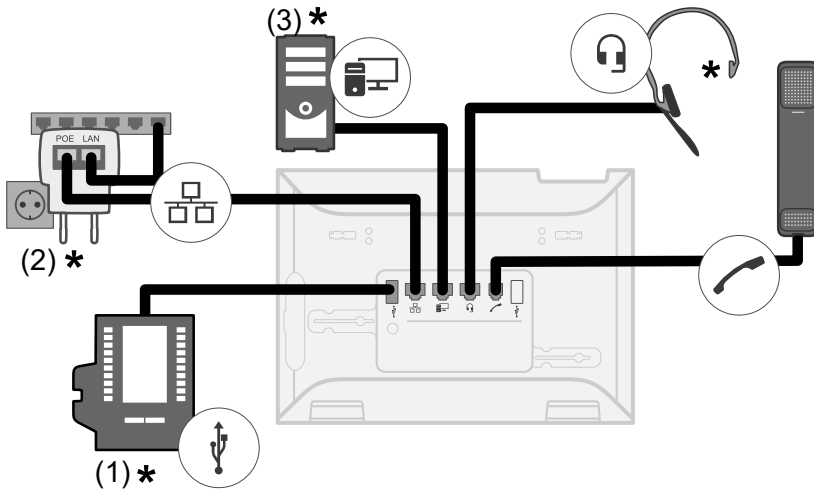
Open web interface

Installing the device feet

Mount the device base (2 different tilt angles).



Connecting the telephone



(1) Only for COMfortel D-XT20/COMfortel D-XT20i connection

(2) COMfortel PoE-100 (10/100 Mbit/s) or COMfortel PoE-1000 (10/100/1000 Mbit/s) if there is no PoE supply

(3) Direct PC connection via network cable

(4) USB port for Bluetooth dongle COMfortel D-Wireless (EZC-5200BS) or optional USB devices

* Not included in the scope of delivery

Commissioning with provisioning

1. Connect the telephone.

The Message key flashes.

The company logo is first shown on the display for 2 - 3 minutes, followed by information on the progress of provisioning.

The IP address of the phone is shown at the top right of the display.

2. Write down the IP address.

The phone starts up ready for use with the start screen.

Manual commissioning on the PBX

To operate the telephone, it is essential to set up an identity (here: PBX). You need the following information:

- The internal number configured for the phone (Example: 557) → **SIP Username**
- The associated password → **Password**
- The PBX's IP address (Example: 192.168.196.37) → **SIP Registrar**

1. Connect the telephone.




The Message key flashes.

The company logo is first shown on the display for 2 - 3 minutes, followed by the information that provisioning data is being searched for.

The IP address of the phone is shown at the top right of the display.

2. Write down the IP address.

 **Note:** Make the settings afterwards as follows:

- Navigate/select: via touch or cross control , 
- Enter: Keypad or screen keyboard
- Confirm: OK 

3. Set the language and location.


- **Country > Phone language**
- **Location**
- **Web interface**

Manual commissioning on the PBX

4. Optional: Switch back to the initial setup menu and activate access to the web interface.

– Back  > **WebUI**

5. Set up the identity and activate the identity.

–  > **Settings > Identities > 1:**


– **SIP Username**

– **Password**

– **SIP Registrar**

– **Active**

The phone registers at the PBX and is then ready to use.

 Further help under [Identities](#)

Manual commissioning at the provider

To operate the telephone, it is essential to set up an identity (here: provider). You need the following information:

- The username configured for the account (Example: phonenumber@provider.co.uk) → **SIP Username**
- The associated password → **Password**
- The VoIP provider's URL (Example: providername.co.uk) → **SIP Registrar**

1. Connect the telephone.




The Message key flashes.

The company logo is first shown on the display for 2 - 3 minutes, followed by the information that provisioning data is being searched for.

The IP address of the phone is shown at the top right of the display.

2. Write down the IP address.

 **Note:** Make the settings afterwards as follows:

- Navigate/select: via touch or cross control , 
- Enter: Keypad or screen keyboard
- Confirm: OK 

3. Set the language and location.


- **Country > Phone language**
- **Location**
- **Web interface**

Manual commissioning at the provider

4. Optional: Switch back to the initial setup menu and activate access to the web interface.

– Back  > **WebUI**

5. Set up the identity and activate the identity.

–  > **Settings > Identities > 1:**


– **SIP Username**

– **Password**

– **SIP Registrar**

– **Active**

The phone registers with the provider and is then ready to use.

 Further help under [Identities](#)

Open web interface

1. Enter the IP address of the telephone in the address field of the browser.

Example:**https://169.254.1.240**

Since the telephone forces an HTTPS connection, your browser will provide a safety warning (because of the missing safety certificate).

2. Accept the security certificate.
3. Log in.
 - **User name:admin**
 - **Password:admin**
 - **Login**
4. Enter a new administrator password.
 - **New password**
 - **Repeat new password**
 - **Login**

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

Device Overview

[Front View](#)

[Rear View](#)

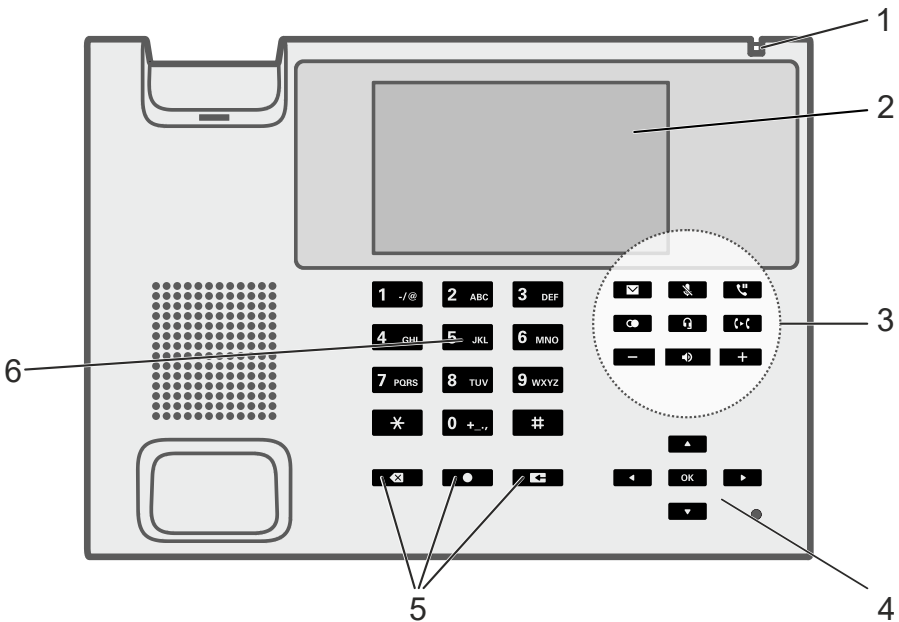
[Headset socket assignment](#)

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.

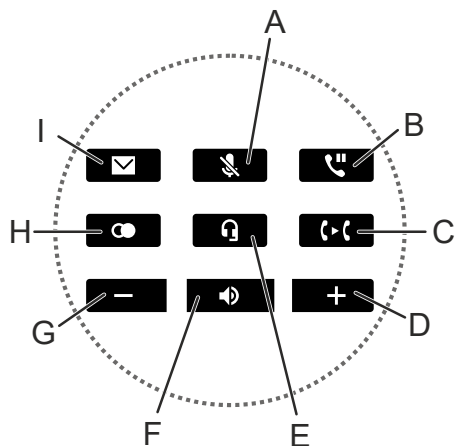
➔ Further help under [Keys and LEDs](#)

Keys and LEDs on the basic unit



1. housing LED
2. Touch display
3. Dedicated function keys
4. Directional pad and OK
5. Delete, Home and Back

6. Keypad



A Microphone

B Hold

C Transfer

D plus

E Headset

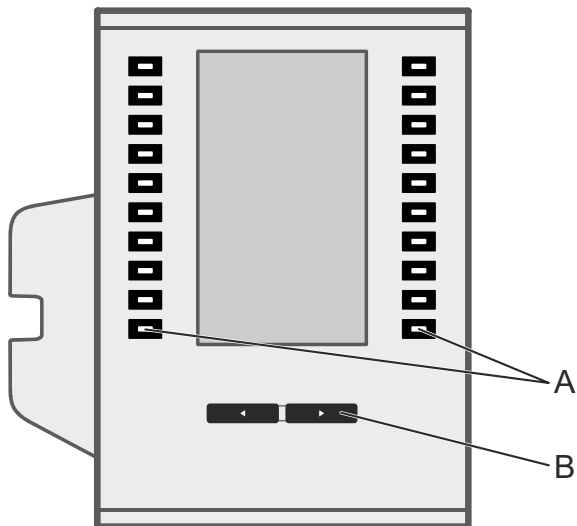
F Loudspeaker

G minus

H Redialling

I Messages

Keys and LEDs on the key extension module



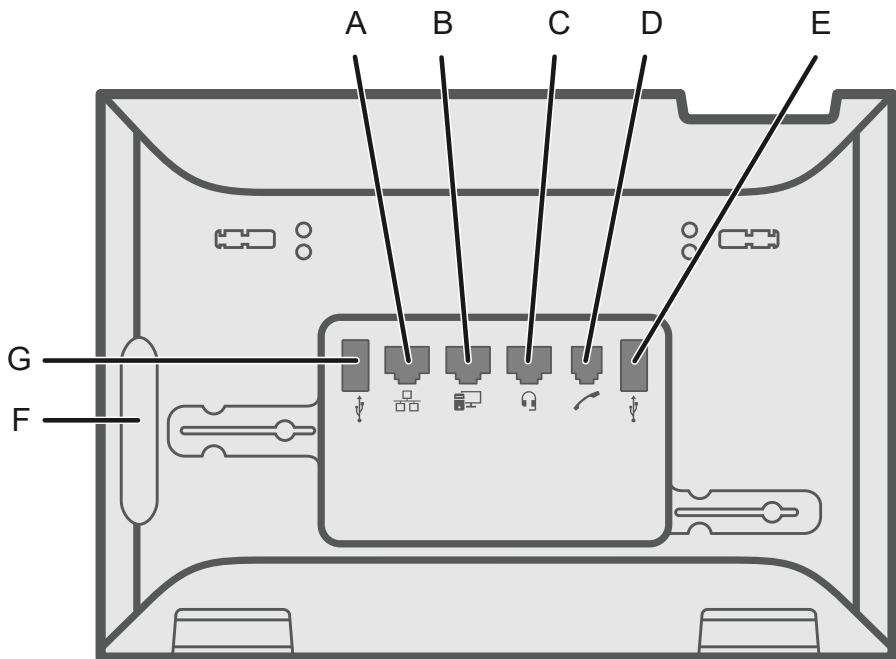
A Function keys (10x on each side)

B control rocker

Rear View

The next figures show the connections on the bottom of the different devices.

COMfortel D-400

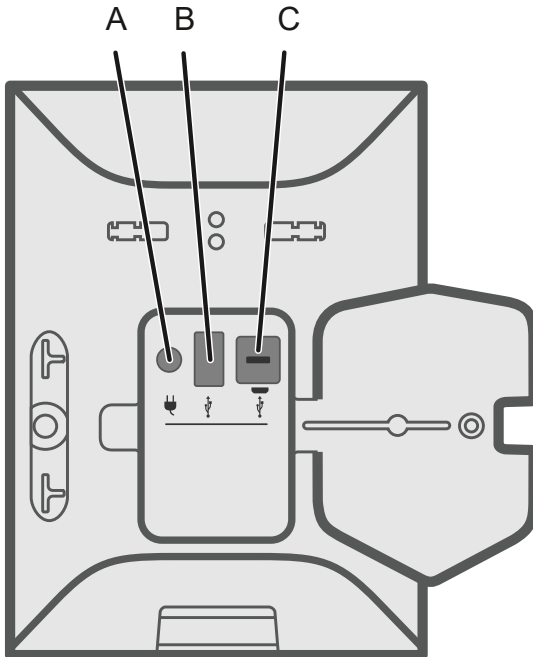


- A Network port
- B Direct PC connection via network cable
- C Headset socket
- D Receiver socket

Rear View

- E USB port (for COMfortel D-Wireless (EZC-5200BS), USB headset, USB mass storage)
- 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 or COMfortel D-XT20i key extension module.

COMfortel D-XT20/D-XT20i



- A Socket for plugging in the COMfortel D-XT-PS wall-mounted power supply (if you connect two or more key extension modules)
- B USB port (exclusively for connecting another COMfortel D-XT20/D-XT20i key extension module)

Rear View

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

Headset socket assignment

- 1 DHSG BUS_IN
- 2 DHSG GND
- 3 - Microphone
- 4 - Loudspeaker
- 5 + Loudspeaker
- 6 + Microphone
- 7 DHSG + 3.3 V
- 8 DHSG BUS_OUT

Legal

Legal

[Contact data](#)

[Environmental notices](#)

[Declaration of conformity](#)

[Conditions of guarantee](#)

[Licenses](#)

Contact data

Manufacturer: Auerswald & GmbH Co. KG, Hordorfer Str. 36, 38162
Cremlingen, Germany

D | A | CH | L: www.auerswald.de

B | E | F | GR | I | NL | PL | UK: www.fontevo.com

Environmental notices



To protect the environment, please make sure that the packaging materials are properly disposed of.



If the Auerswald device is taken out of use (retired), make sure that it is properly disposed of (it must not be disposed of with normal household waste).

Consult your local governmental authorities for information about how to dispose of the device in a proper and environmentally safe way. If you would like us to handle disposal, please send the device to us, at Auerswald GmbH & Co. KG.

Declaration of conformity

Auerswald GmbH & Co. KG declares: This product complies with the basic health, safety and environmental requirements in all relevant European directives. The Declaration of conformity can be found at: www.auerswald.de/en/start/support/products. Select the product there. You can then download the Declaration of Conformity under "Documentations".

Conditions of guarantee

1. Auerswald GmbH & Co. KG, Vor den Grashöfen 1, 38162 Cremlingen, Germany, grants 24 months Manufacturer's Warranty from the date of purchase, as the manufacturer of this product.
2. We guarantee that our devices are error-free when supplied. If a manufacturing error is identified within 24 months of the delivery date, we will repair or replace the device free of charge without you, as the consumer, having to provide the usual legally required proof that this fault was present when you received the device. We either use new parts or parts in mint condition for the repair or replacement delivery. Any parts removed from the device become our property and can be destroyed by us.
3. In addition to this warranty, you have the unlimited legal right to claim against the supplier on the basis of the terms of the warranty for defects on the basis of the purchase contract. However, in contrast to our Manufacturer's Warranty, the legal warranty for defects only applies to the device's state when sold (handover).
4. You can only claim against this warranty if you return the faulty device to Auerswald GmbH & Co. KG or our local general importer or distributor, outside Germany, at your own cost, with a valid proof of purchase (invoice or till receipt). When you return it to us, please provide a detailed description of the fault that has occurred, and also tell us your telephone number, in case we need to contact you. To prevent shipping damage, provide suitable transport packaging (e.g. original packaging with a secondary shipping box).
5. The Manufacturer's Warranty excludes damage caused by mishandling, operating errors, misuse, external influences, lightning strikes/power surges, modifications to the product and extensions. Also excluded are wearing parts (e.g. batteries, fuses, rechargeable

Conditions of guarantee

batteries and memory cards) and damage caused by wearing parts (e.g. if batteries go flat). Shipping damage, consequential damage, and costs arising from down times and travel times are also excluded.

6. The warranty is cancelled if repairs are carried out by unauthorised agents.

Licenses

Please read the End User Licence Information (EULA) before using your Auerswald Product or downloading the software update accompanying this license.

The software in this product contains elements of copyright-protected software that is subject to the GPL, the LGPL or other licenses.

To view the licences, select **Dashboard** > **Status information** > **Legal**.

The product COMfortel D-XT20i

The product COMfortel D-XT20i

Scope of Delivery

Proper Use

Safety information

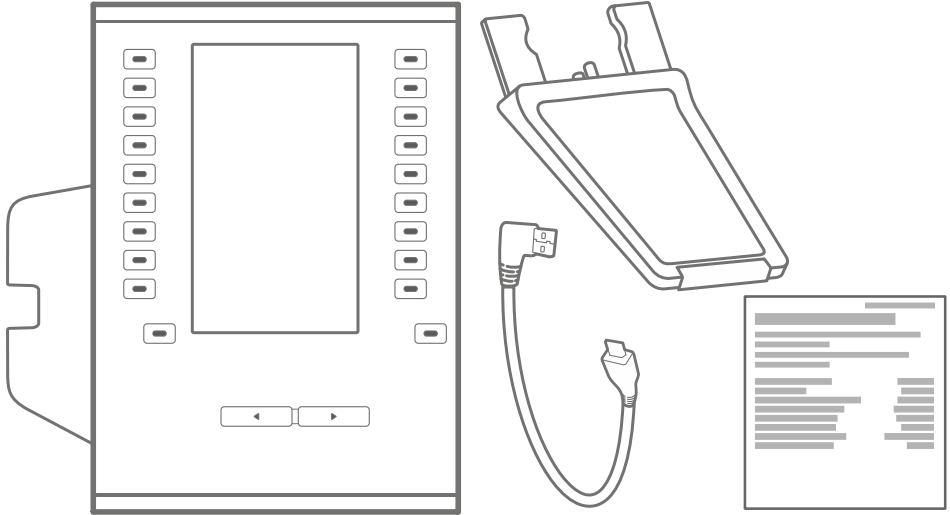
Technical Data

Assembly and connection

Legal

Scope of Delivery

COMfortel D-XT20i



Proper Use

The COMfortel D-XT20i is a module to add 20 freely assignable buttons. Suitable for the following telephones: COMfortel D-200/D-210/D-400/D-600.

Safety information

To ensure that you are able to use the COMfortel D-XT20i safely and without faults, comply with the notes below. Improper use may, for example, cause functional restrictions, destruction of the device or, in a worst case scenario, personal injury. You will find any necessary additional warning notices about using the device in the relevant sections.

Read these Instructions and keep them for future reference.

Also comply with the safety Information in the Instructions for your telephone.

Connecting Safely

Connect the device as described in these Instructions. Take note of the technical data on the type plate and in these Instructions.

Only use original accessories and original replacement parts. Using the wrong power supply unit can damage or destroy the device. Take note of the technical information about the power supply.

Limitations on Use

Do not mount the device on a wall.

Repair

Do not open the device. Only the manufacturer is permitted to open the device and repair it. If the display is damaged, be careful when handling and packing the device. There is a risk of injury.

Technical Data

COMfortel D-XT20i

Connection to	COMfortel D-200/D-210/D-400/D-600
Supply	Max. 1 module: via USB Operating voltage: max. 5 V, max. 0.5 A Power consumption: max. 2.5 W, min. 1 W 2 or max. 3 modules: via power supply COMfortel D-XT-PS (type no. HSE-S1501500EU/...UK) Operating voltage: 15 V, max. 0.6 A Power consumption: max. 9 W, min. 0 W
Displays	20 LEDs, three-colour, illuminated IPS display, 4.3", 272 × 480 pixels, backlight
User elements	20 programmable function keys, control rocker
Casing	Plastic material, black or white
Dimensions	123 mm × 133/100 mm × 145/195 mm
Weight	306 g
Temperature	Operation: 0°C to 40°C, storage: -30°C to +70°C, non-condensing

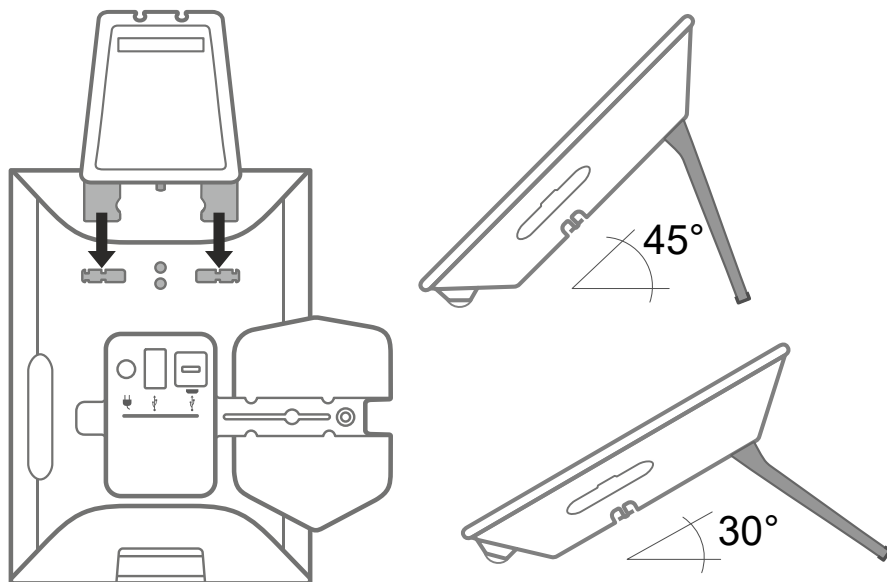
Technical Data

Security

CE

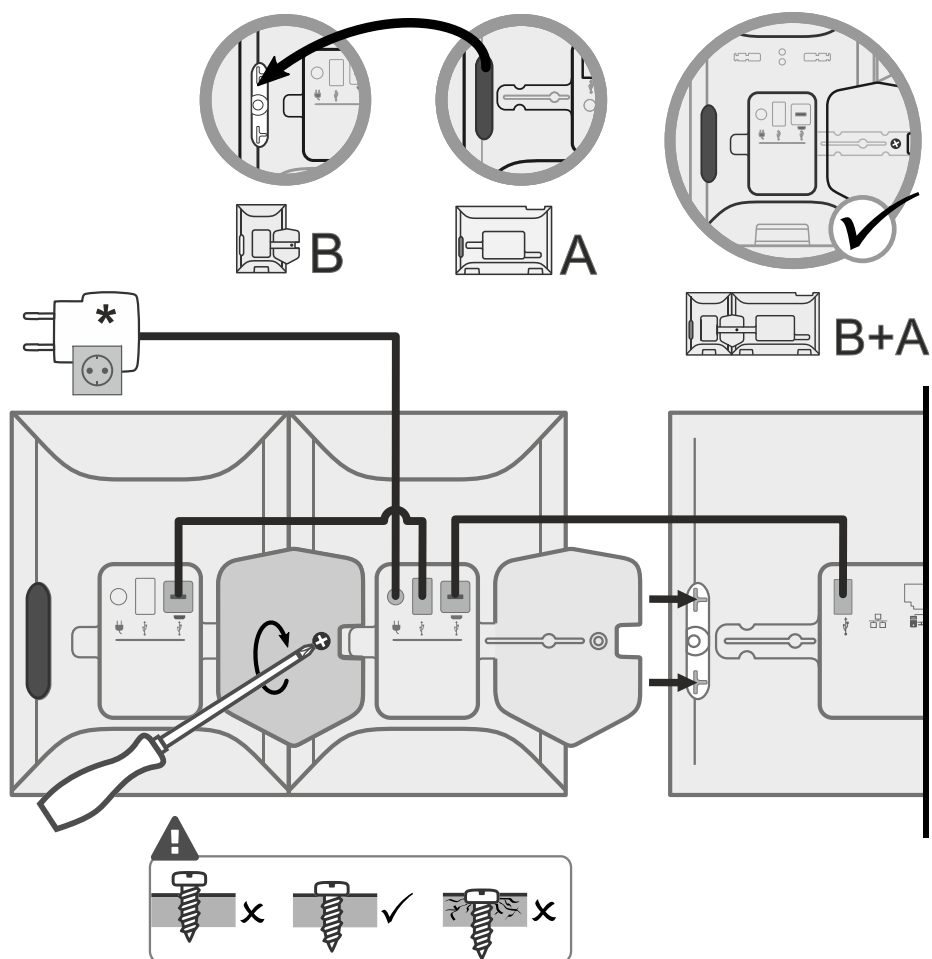
Assembly and connection

1. Mount the device base (2 different tilt angles).



2. Connect the module to the telephone.

Assembly and connection



A Basic device/telephone (not included in the scope of delivery)

B Module COMfortel D-XT20i

Assembly and connection

- * When connecting 2 or more key extension modules: Use a COMfortel D-XT-PS power supply (not included in the scope of delivery)

Legal

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[Contact data](#)

[Environmental notices](#)

[Declaration of conformity](#)

[Conditions of guarantee](#)

Contact data

Manufacturer: Auerswald & GmbH Co. KG, Hordorfer Str. 36, 38162
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Environmental notices



To protect the environment, please make sure that the packaging materials are properly disposed of.



If the Auerswald device is taken out of use (retired), make sure that it is properly disposed of (it must not be disposed of with normal household waste).

Consult your local governmental authorities for information about how to dispose of the device in a proper and environmentally safe way. If you would like us to handle disposal, please send the device to us, at Auerswald GmbH & Co. KG.

Declaration of conformity

Auerswald GmbH & Co. KG declares: This product complies with the basic health, safety and environmental requirements in all relevant European directives. The Declaration of conformity can be found at: www.auerswald.de/en/start/support/products. Select the product there. You can then download the Declaration of Conformity under "Documentations".

Conditions of guarantee

1. Auerswald GmbH & Co. KG, Vor den Grashöfen 1, 38162 Cremlingen, Germany, grants 24 months Manufacturer's Warranty from the date of purchase, as the manufacturer of this product.
2. We guarantee that our devices are error-free when supplied. If a manufacturing error is identified within 24 months of the delivery date, we will repair or replace the device free of charge without you, as the consumer, having to provide the usual legally required proof that this fault was present when you received the device. We either use new parts or parts in mint condition for the repair or replacement delivery. Any parts removed from the device become our property and can be destroyed by us.
3. In addition to this warranty, you have the unlimited legal right to claim against the supplier on the basis of the terms of the warranty for defects on the basis of the purchase contract. However, in contrast to our Manufacturer's Warranty, the legal warranty for defects only applies to the device's state when sold (handover).
4. You can only claim against this warranty if you return the faulty device to Auerswald GmbH & Co. KG or our local general importer or distributor, outside Germany, at your own cost, with a valid proof of purchase (invoice or till receipt). When you return it to us, please provide a detailed description of the fault that has occurred, and also tell us your telephone number, in case we need to contact you. To prevent shipping damage, provide suitable transport packaging (e.g. original packaging with a secondary shipping box).
5. The Manufacturer's Warranty excludes damage caused by mishandling, operating errors, misuse, external influences, lightning strikes/power surges, modifications to the product and extensions. Also excluded are wearing parts (e.g. batteries, fuses, rechargeable

Conditions of guarantee

batteries and memory cards) and damage caused by wearing parts (e.g. if batteries go flat). Shipping damage, consequential damage, and costs arising from down times and travel times are also excluded.

6. The warranty is cancelled if repairs are carried out by unauthorised agents.

The product COMfortel D-XT-PS

The product COMfortel D-XT-PS

Scope of Delivery

Proper Use

Safety information

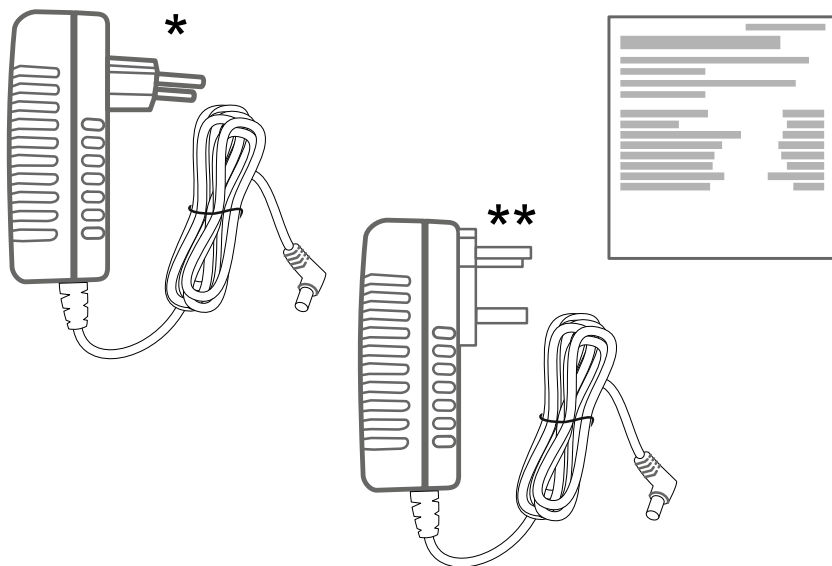
Technical Data

Connection

Legal

Scope of Delivery

COMfortel D-XT-PS



* D A C H L B E F G R I N L P L

** U K

Proper Use

The COMfortel D-XT-PS is a power supply unit for providing a direct power supply for 2 or 3 COMfortel D-XT20/D-XT20i key extension modules or the COMfortel D-600.

Safety information

To ensure that you are able to use the COMfortel D-XT-PS safely and without faults, comply with the notes below. Improper use may, for example, cause functional restrictions, destruction of the device or, in a worst case scenario, personal injury. You will find any necessary additional warning notices about using the device in the relevant sections.

Read these Instructions and keep them for future reference.

Also comply with the safety Information in the Instructions for your telephone.

Connecting Safely

Connect the device as described in these Instructions. Take note of the technical data on the type plate and in these Instructions. Only connect the device's connection cables to wall sockets that are designed for that purpose, have been properly installed, and are easily accessible. Arrange for a qualified electrician to install all the cables inside the building.

Ensure you comply with the relevant regulations when handling supply voltage and devices attached to the mains.

Location characteristics

Only operate the PBX in closed, dry rooms.

Never cover the device.

Limitations on Use

Never use a damaged device. If you need to replace a damaged device, disconnect the fuse on the power supply before touching that device. If a device is damaged, dispose of it.

Do not touch the device during an electrical storm.

The power supply is only suitable for devices as defined by its proper use. Never use the power supply on other devices. The power supply could damage these devices or start a fire.

Repair

Do not open the device. Only the manufacturer is permitted to open the device and repair it.

Cleaning

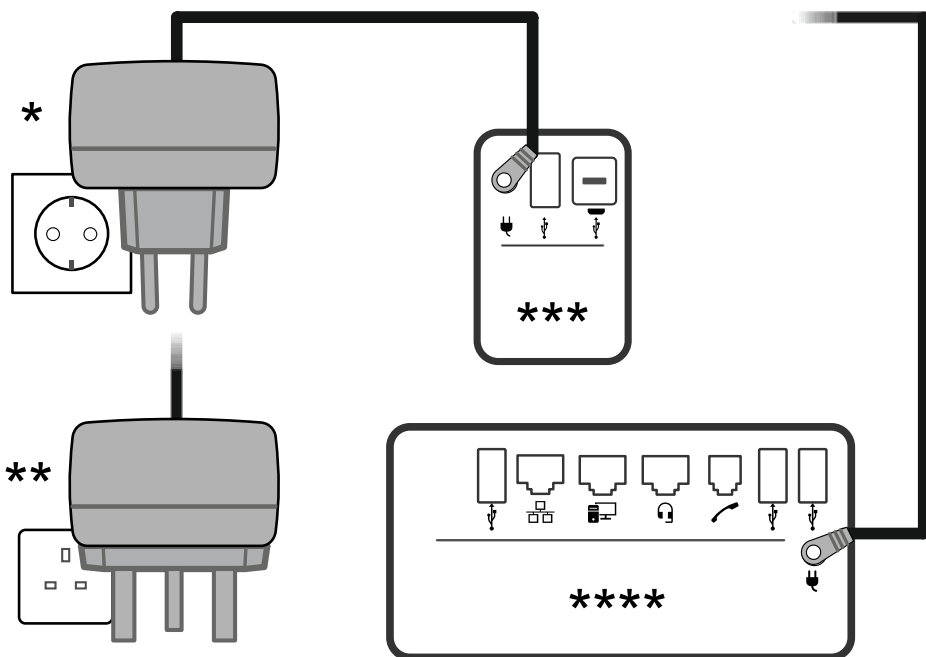
Any liquid that penetrates the casing can result in a life-threatening electric shock or can damage or destroy the telephone. Only clean the device with a dry cloth.

Technical Data

COMfortel D-XT-PS

Type no.	HSE-S1501500EU/...UK
Operating voltage	90 – 264 V AC, 47 Hz – 63 Hz
Output values	15 V DC, 1,5 A
Casing	Black plastic
Dimensions	4.8 cm × 9 cm × 7.1 cm
Weight	160 g
Temperature	Operation: 0°C to 40°C, storage: -10°C to +70°C, non-condensing
Security	CE

Connection



* D A C H L B E F G R I N L P L

** U K

*** Connection to COMfortel D-XT20i

**** Connection to COMfortel D-600

Legal

Legal

[Contact data](#)

[Environmental notices](#)

[Declaration of conformity](#)

[Conditions of guarantee](#)

Contact data

Contact data

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Environmental notices



To protect the environment, please make sure that the packaging materials are properly disposed of.



If the Auerswald device is taken out of use (retired), make sure that it is properly disposed of (it must not be disposed of with normal household waste).

Consult your local governmental authorities for information about how to dispose of the device in a proper and environmentally safe way. If you would like us to handle disposal, please send the device to us, at Auerswald GmbH & Co. KG.

Declaration of conformity

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2. We guarantee that our devices are error-free when supplied. If a manufacturing error is identified within 24 months of the delivery date, we will repair or replace the device free of charge without you, as the consumer, having to provide the usual legally required proof that this fault was present when you received the device. We either use new parts or parts in mint condition for the repair or replacement delivery. Any parts removed from the device become our property and can be destroyed by us.
3. In addition to this warranty, you have the unlimited legal right to claim against the supplier on the basis of the terms of the warranty for defects on the basis of the purchase contract. However, in contrast to our Manufacturer's Warranty, the legal warranty for defects only applies to the device's state when sold (handover).
4. You can only claim against this warranty if you return the faulty device to Auerswald GmbH & Co. KG or our local general importer or distributor, outside Germany, at your own cost, with a valid proof of purchase (invoice or till receipt). When you return it to us, please provide a detailed description of the fault that has occurred, and also tell us your telephone number, in case we need to contact you. To prevent shipping damage, provide suitable transport packaging (e.g. original packaging with a secondary shipping box).
5. The Manufacturer's Warranty excludes damage caused by mishandling, operating errors, misuse, external influences, lightning strikes/power surges, modifications to the product and extensions. Also excluded are wearing parts (e.g. batteries, fuses, rechargeable

Conditions of guarantee

batteries and memory cards) and damage caused by wearing parts (e.g. if batteries go flat). Shipping damage, consequential damage, and costs arising from down times and travel times are also excluded.

6. The warranty is cancelled if repairs are carried out by unauthorised agents.

The product COMfortel D-Mount

The product COMfortel D-Mount

Scope of Delivery

Proper Use

Safety information

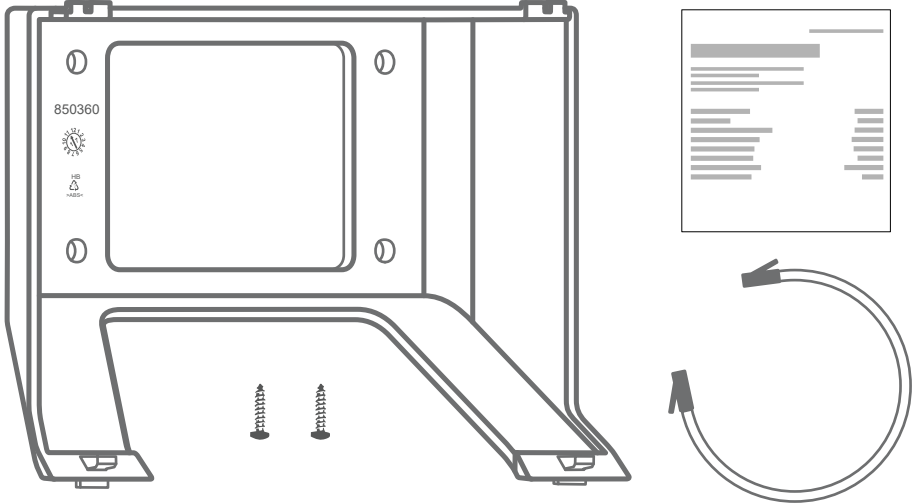
Technical data

Assembly

Legal

Scope of Delivery

COMfortel D-Mount



Proper Use

The COMfortel D-Mount is a bracket for mounting a telephone on the wall. Suitable for the following telephones: COMfortel D-100/D-110/D-200/D-210/D-400.

Safety information

To assemble the COMfortel D-Mount safely, comply with the notes below. You will find any necessary additional warning notices about using the device in the relevant sections.

Read these Instructions and keep them for future reference.

Carry out Assembly as described in these Instructions.

During assembly, also comply with the safety information in the Instructions for your telephone.

Limitations on Use

Do not mount the device any higher than 2 m above the ground.

Necessary Qualification

To avoid injuries during assembly, or if the device falls down while it is in operation, arrange for a specialist technician to carry out assembly.

Technical data

COMfortel D-Mount

Material	Black plastic
Dimensions	190 x 125 mm x 57 mm
Weight	77 g

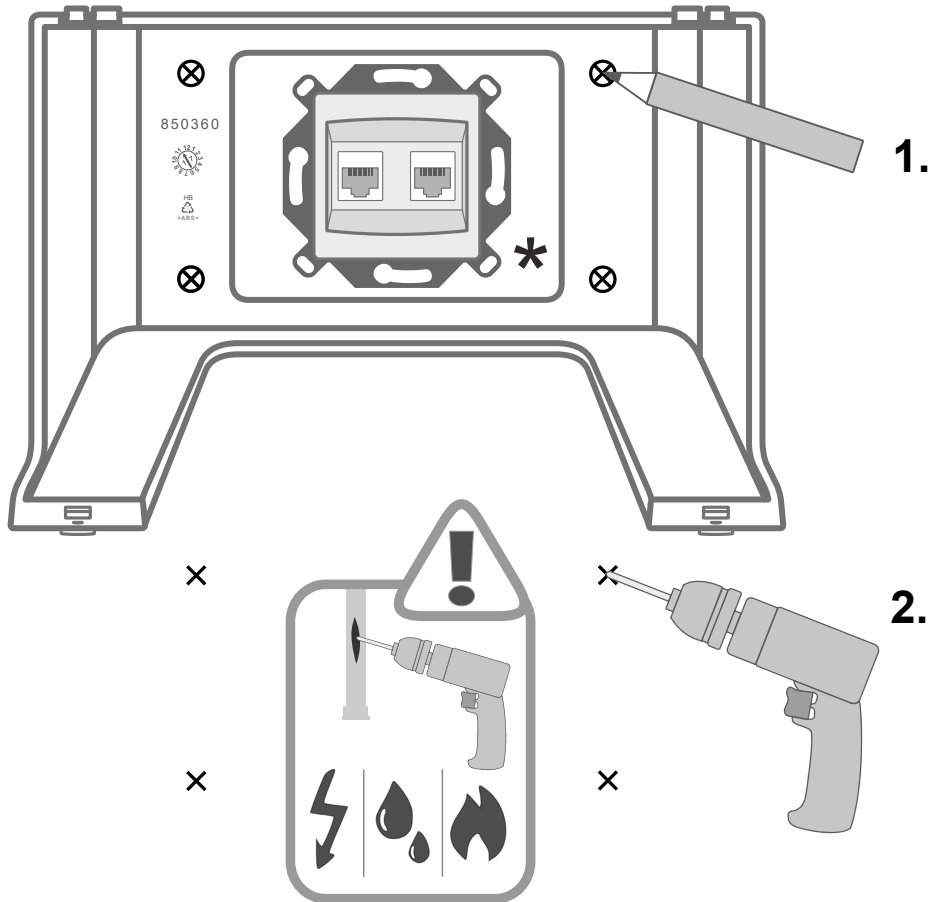
Assembly

1. Mark the fixing holes.

Use the wall bracket COMfortel D-Mount as a template.

2. Drill the fixing holes.

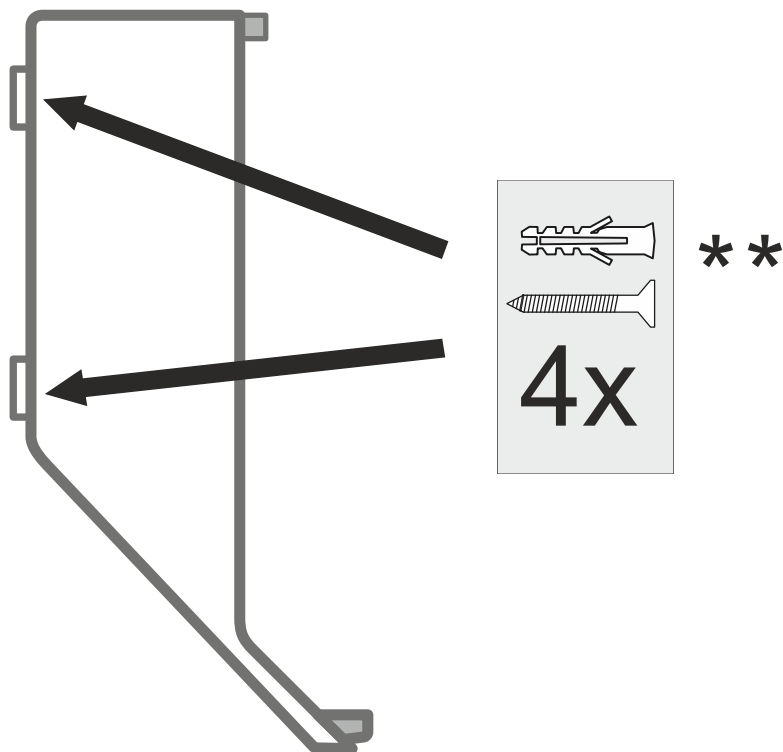
Assembly



* Installation variant: Assembly directly above a network socket

3. Mount the wall bracket.

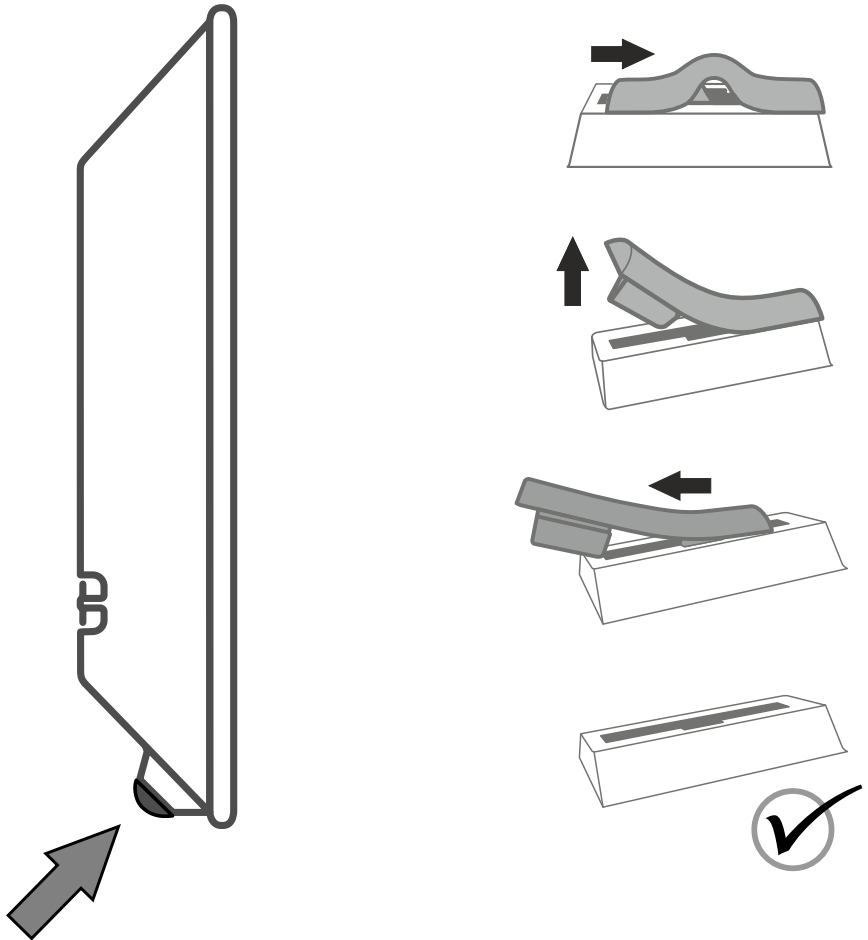
Assembly



** Dowels, diameter 6 mm, with suitable screws (not included in the scope of delivery)

4. Mount the telephone.

Assembly



Legal

Legal

[Contact data](#)

[Environmental notices](#)

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[Conditions of guarantee](#)

Contact data

Contact data

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Environmental notices



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Consult your local governmental authorities for information about how to dispose of the device in a proper and environmentally safe way. If you would like us to handle disposal, please send the device to us, at Auerswald GmbH & Co. KG.

Declaration of conformity

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Conditions of guarantee

batteries and memory cards) and damage caused by wearing parts (e.g. if batteries go flat). Shipping damage, consequential damage, and costs arising from down times and travel times are also excluded.

6. The warranty is cancelled if repairs are carried out by unauthorised agents.

These Instructions

Gender Notice

The English-language documentation does not use gender-specific forms of address.

Any references to persons apply to all people of all genders.

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All other trademarks mentioned are the property of the relevant manufacturer.

After the update

After a firmware update, you usually require a new version of the instructions. The help function in the web interface always provides you with the latest help for the product.

-  You will find the up-to-date instructions as PDF on the Internet at [Auerswald Support/FONtevo Support](#).

Functions and Applications

Information about the section

Action URL

Anonymous call

Apps

Automatic call acceptance

Automatic start of call

Backup and restore

Bluetooth

Call and transfer

Call bindings

Call Completion

Call forwarding

Call waiting

Call history

Cameras

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Contacts

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Date and time

Direct call

Display and LED

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DTMF

Function keys

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Identities

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Functions and Applications

Language and location

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Park position

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Pickup

Roaming User

Service functions, problem solving

Silent Alert

Silent Call

SIP message

Sound

Speed dial

Sync

Update

User roles and permissions

Using provisioning

Voicemail App

XML Minibrowser

Information about the section

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

Action URL

Action URLs are HTTP GET requests which are either sent to a PC, PBX or server, from your phone, or vice versa. 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 to the number and condition of calls to the device (e.g. a newly received call).


 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:

 Further help in the [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


Action URL

*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.

 **Note:** For full functionality, some commands that are to be executed will need additional parameter settings.



 Further help in the [Auerswald DokuWiki](#)

Anonymous call

The function **Anonymous call** enables the caller to make a call without revealing their subscriber number to the person being called.


-  **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.
 -  **Important:** 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.
 -  Further help under [Identities](#)

Configuration

Web interface:

- Telephony > Anonymous call**
 -  Details about the settings are in [Dialled calls](#)
- Function keys > Choose a key >Function:Anonymous call**

Anonymous call

 Details about the settings are in [Function keys](#)

Phone:


- **Settings > Telephony > Anonymous call**

 Details about the settings are in [Anonymous call](#)


- **Settings > Function keys> Choose a key >Choose a function:Anonymous call**

 Details about the settings are in [Function keys](#)



Provisioning:

 Details about provisioning this function in the [Auerswald DokuWiki](#)

Apps

Apps werden aufgerufen über: Startbildschirm > 

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.
-  **Important:** Not every available app is compatible with your telephone.

Reset to default



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.

Apps



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.



Starts the Voicemail app so that fax and voicemail messages can be retrieved.



Opens the pickup list. This displays all the calls that can be picked up from the pickup list, sorted by time.



Starts the cleaning mode for 60 seconds.



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

Weitere Apps lassen sich über den F-Droid App Store installieren. Dazu muss der F-Droid App Store aktiviert sein.

1. Öffnen Sie den F-Droid App Store: Startbildschirm >  > .
2. Select the app you want in the list.
3. Tippen Sie **Install**.
4. 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.


Configuration

Phone:

- **Settings > Apps**

 Details about the settings are in [Apps](#)

Provisioning:


 Details about provisioning this function in the [Auerswald DokuWiki](#)

Automatic call acceptance

This 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.


Another use case is announcements to phones (InterCom), e.g. for announcements in the consulting room of a doctor's office.

 Further help under [InterCom](#)

Configuration

Web interface:

- **Telephony > Call settings > Automatic call acceptance**


 Details about the settings are in [Automatic call acceptance](#)

Phone:

- **Settings > Telephony > Automatic call acceptance**

 Details about the settings are in [Telephony](#)

Provisioning:

 Details about provisioning this function in the [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 the OK button .

Configuration

Web interface:

- **Telephony > Dialed calls > Automatic start of call**


 Details about the settings are in [Dialed calls](#)

Phone:

- **Settings > Telephony > Automatic start of call**

 Details about the settings are in [Telephony](#)


Provisioning:

 Details about provisioning this function in the [Auerswald DokuWiki](#)


Backup and restore

During a 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 factory settings and it is not planned to completely reconfigure it.

 **Note:** Uploading the backup file can involve a data migration. The phone cannot be used while this is happening. A message appears on the display to tell you a data migration is taking place.

Requirement for use

- A data backup involves protected data. Before downloading starts, you must acknowledge that in the dialog window.
-  **Important:** Comply with the legal notes below before backing up the data. The data backup includes these elements with special legal protection:
 - Configuration of the telephone
 - Names of internal subscribers
 - Passwords of the telephone, the subscribers, the VoIP accounts and the VoIP subscribers
 - Address books of the phone
 - Connection data sets with destination, source, and time information of a telecommunication connection
 - If necessary, WLAN passwords
 - VPN information and VPN credentials
 - If necessary, Webcam and acces data

Backup and restore

- LDAP information
- If necessary, information on sync accounts (CalDAV, CardDAV)

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 absolutely necessary to store the data safely and in accordance with the legal requirements. If you want to make the data backup available to your specialised dealer or to the manufacturer for error analysis, you must make sure that the legal requirements are fulfilled.

Configuration

Web interface:

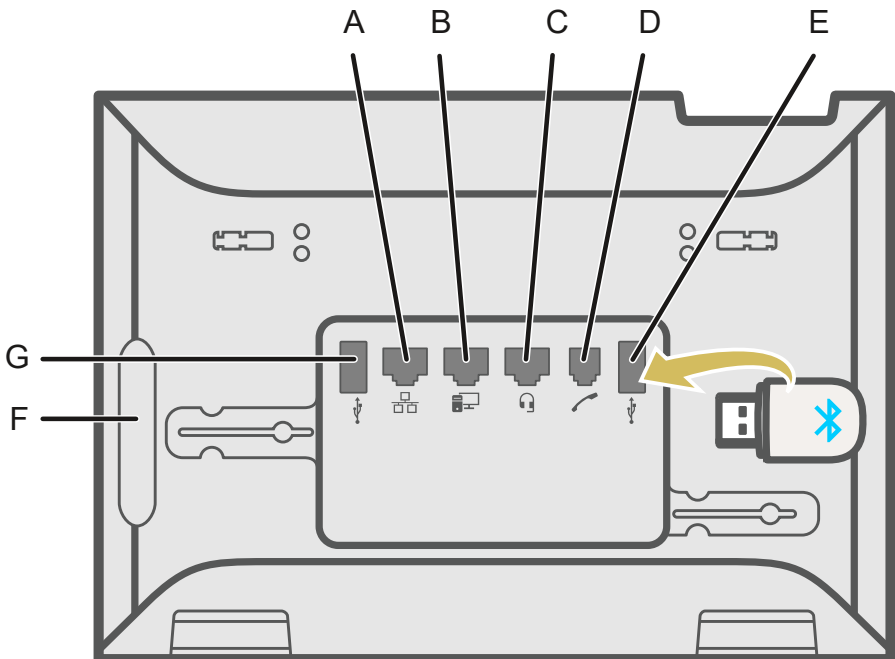
- **Backup and restore**

 Details about the settings are in [Backup and restore](#)

Bluetooth

A Bluetooth headset can be connected using wireless Bluetooth technology (prerequisite: Bluetooth 4.0). 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


Bluetooth

- E USB port (for COMfortel D-Wireless (EZC-5200BS), USB headset, USB mass storage)
- 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

- ! **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

Web interface:

- **Function keys** > Choose a key > **Function:Bluetooth**
 -  Details about the settings are in [Function keys](#)


Phone:

- **Settings** > **Bluetooth**
 -  Details about the settings are in [Bluetooth](#)
- **Settings** > **Function keys** > Choose a key > **Choose a function:Bluetooth**
 -  Details about the settings are in [Function keys](#)

Provisioning:

 Further help in the [Auerswald DokuWiki](#)


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 devices is added to the list of coupled devices.
 -  **Note:** If a Bluetooth headset is used, there must be no other pairings with other Bluetooth devices. Deactivate Bluetooth on devices in range.
6. To close a connection, select the paired device in the list and then select OK at the prompt to confirm.

Call and transfer

 Description of operation and display under [Call](#)

Depending on the situation or personal preference, calls can be made using the handset, the integrated microphone/speaker or a headset (optional accessory).

 **Note:** In permanently noisy environments, it makes sense to switch off the sidetone in the handset (in the phone: **Settings** > **Sound** > **Handset sidetone**). The volume is automatically increased.


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.

 Description of the operation under [Hands-Free Calling](#)

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](#)


Headset mode

A headset enables you to participate in calls without actually holding the receiver, unlike when you use a receiver. Corded and cordless headsets are supported. Headsets that are connected to the telephone are prioritised as follows:

1. Bluetooth headsets
2. USB headsets
3. Headsets with a DHSG interface

 **Note:** Only connect one USB headset.

 **Caution:** When using a Bluetooth headset, make sure that the telephone is disconnected from the power supply before plugging in the COMfortel D-Wireless (EZC-5200BS).

 **Note:** To connect an USB headset, only use the USB sockets provided for this purpose on the telephone and not on the COMfortel D-XT20/D-XT20i key extension module.

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](#)

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 picking up during a call, or by accepting a call signalled by the audible indication.

During a query call, the following options are available.

- **Splitting a call:** You can use the transfer function to alternate between the call partners.
- **Ending one of the two calls:** When you end a query call and 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.
- **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.

 **Note:** In order to connect two external call partners, the authorisation "Transfer of external calls to external" must be granted in the PBX.


 Consult the PBX manual for this.

 Description of operation and display under [Query Calls](#)


Transferring calls

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

- **Transfer the call with an announcement:** A query will be initiated. The call is announced and both call partners are then connected.
- **Transfer the call without announcement (blind transfer):** The transfer destination is dialled and hung up while the call is still being rung. As soon as the person called answers, the connection is established. If the person called does not answer, the call goes back to your own phone (the phone rings).
- **Calling a 3rd internal subscriber and connecting them to an active call partner:** Another call is added to an existing call (e.g. by answering a waiting call). This second call partner should be transferred. To do this, a third call is initiated and the second is connected to the third call partner. The original, existing call continues.

 **Note:** In order to connect two external call partners, the authorisation "Transfer of external calls to external" must be granted in the PBX.

 Consult the PBX manual for this.


 Description of operation and display under [Transferring calls](#)

Conference call

During a conference you speak to two call partners at the same time.


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

- **Splitting a call:** During a conference, you can alternately speak to one of the two call partners and deliberately push the other into the background. You do not have to end the conference call, to do so.
- **Connecting both conference partners to each other:** If you want 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:** In order to connect two external call partners, the authorisation "Transfer of external calls to external" must be granted in the PBX.

 Consult the PBX manual for this.


- **Splitting a conference:** The conference call is cancelled. One caller is on hold and there is an active connection with the other caller. 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 partner:** You can end the conversation with one conference partner and then continue speaking with the remaining caller. 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.

 Description of operation and display under [Conference call](#)

Call bindings

The call binding function allows calls from specific phone numbers (e.g. calls from the door) to be linked to a camera and up to two function keys. For example, a call binding can be used to open a door or switch on a light.

Video: IP Camera and call bindings

 Link to video (only in German) <https://www.youtube.com/watch?v=8nx44UfFOG8>

Configuration

Web interface:

- **Telephony > Call bindings**


 Details about the settings are in [Call bindings](#)

Phone:

- **Settings > Telephony > Call bindings**


 Details about the settings are in [Telephony](#)

Provisioning:

 Details about provisioning this function in the [Auerswald DokuWiki](#)

Call Completion

Call completion can be used to monitor a busy number.

 Link to video (only in German) <https://www.youtube.com/watch?v=Bi3rKTur028>

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:

- **Settings > Telephony > Call Completion**

 Details about the settings are in [Telephony](#)

Provisioning:

 Details about provisioning this function in the [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

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, on no reply)
- Call forwarding destination
- Waiting time before call forwarding

Call forwarding immediately

If "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.

Call forwarding 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 audible indication) is configured on the phone, another incoming call during an active call is not signalled.

Call forwarding 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**

-  Details about the settings are in [Call forwarding](#)

- **Function keys > Choose a key > Function: Call forwarding on busy / Call forwarding on no reply / Call forwarding immediately**

-  Details about the settings are in [Function keys](#)

Phone:


- **Settings > Telephony > Call forwarding**

-  Details about the settings are in [Telephony](#)

- **Settings > Function keys > Choose a key > Choose a function: Call forwarding on busy / Call forwarding on no reply / Call forwarding immediately**

-  Details about the settings are in [Function keys](#)

Provisioning:

-  Details about provisioning this function in the Auerswald DokuWiki at [Setting](#) and [Key default](#) and [Key vendor](#)

Call waiting


Call waiting signals incoming calls during a call.

A call is signalled by

- a tone
- a message on the display



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](#)
- **Function keys > Choose a key > Function: Call waiting**
 -  Details about the settings are in [Function keys](#)

Phone:

- **Settings > Telephony > Call waiting/Audible indication**


Call waiting

 Details about the settings are in [Telephony](#)

- **Settings > Function keys> Choose a key >Choose a function:Call waiting**

 Details about the settings are in [Function keys](#)

Provisioning:

 Details about provisioning this function in the Auerswald DokuWiki at [Setting](#) and [Key](#)

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.

Call waiting

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.

Call history


The call list is accessed via: Home screen > 

Calls and conversations are stored in the call list with the phone number as well as the date and time of the call/conversation.


A maximum of 100 phone numbers can be saved. The oldest entry is then overwritten.

 Description of the operation under [Calls \(Call history\)](#)

Outgoing calls (redial list)


The redial list only displays outgoing calls and therefore the last dialled numbers. This part of the call list can also be accessed via: the redial key 

Missed calls


The "Missed calls" list only displays missed calls and their phone numbers. This part of the call list can also be accessed via: the message key 

Call logging

For certain use cases (e.g. the use of phones in hotels), the logging of calls can be switched off. This prevents subsequent users from seeing the phone numbers of previously made calls.

 **Note:** To prevent unauthorised people from changing the logging, the telephony settings should be blocked.

 Further help under [User roles and permissions](#)


 **Important:** If logging is switched off, it is not possible to redial calls.

In order to fill the call list only with individually important calls, the logging can be set depending on the type of call using the Alert Info. Calls that have already been handled elsewhere can be excluded from the call list.

Central caller list

Central caller list is a PBX COMtrexx function.

The PBX can store up to 50 entries per user and the groups assigned to them in its central caller list. This function can be enabled separately for each user so they can access the saved data on their telephone. This is very useful if the roaming user function is also being used. When the user changes from using one telephone to using a different one, their calls are only stored in the central caller list. The local caller list logged by the phone, on the other hand, has no access to calls that were made while logged out or on another phone.

 Further help under [Roaming User](#)

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
- Subscriber number
- Identity (user: local phone number, groups: local group name)
- Date
- Time
- Conversation duration

Call history

In the phone, the entries can be displayed sorted using the call list function (incoming, missed, all calls).

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).

Configuration


Web interface:

- **Telephony > Call settings > Call history**
 -  Details about the settings are in [Call history](#)

Phone:

- **Settings > Telephony > Log calls**
 -  Details about the settings are in [Call history](#)

Provisioning:

 Details about provisioning this function in the [Auerswald DokuWiki](#)

Cameras


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](#)

Video: IP Camera and call bindings

 Link to video (only in German) <https://www.youtube.com/watch?v=8nx44UfFOG8>

Wallpaper

A configured camera can be set as the wallpaper for the idle screen. Use gesture control to switch between two different views.

- Left: Standard view
- Right: view without widgets


Requirement for use

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

Configuration


Web interface:

- **Cameras**

 Details about the settings are in [Cameras](#)

Phone:


- **Cameras**

 Details about the settings are in [Camera](#)

Provisioning:

 Further help in the [Auerswald DokuWiki](#)

Cleaning


 **Warning:** Liquids penetrating the casing can damage or destroy the device.

- Only clean the device with a dry cloth.

To clean without accidentally selecting or activating functions, the phone can be put into cleaning mode.

The cleaning mode is enabled via a function key for 60 seconds. During this period

- every press of the key and every touch on the display is ignored
- if do not disturb is enabled

 **Caution:** Dialing an emergency number is not possible in cleaning mode.

If no key shall be used, the cleaning mode can alternatively be accessed via an app.

 Description of the operation under [Cleaning](#)

Configuration

Web interface:

- **Function keys**> Choose a key >**Function:Cleaning**

 Details about the settings are in [Function keys](#)

Cleaning

Phone:


- **Settings > Function keys> Choose a key >Choose a function:Cleaning**

 Details about the settings are in [Function keys](#)

Provisioning:

 Further help in the [Auerswald DokuWiki](#)


Contacts

Contacts are accessed via . They comprise:

- Locally saved contacts
- Contact data received via synchronisation from Google accounts
- Contact data received via synchronisation using the Sync app


 Further help under [Sync](#)

- Contact data received via LDAP

 **Note:** Depending on the PBX support, the LDAP contact data also includes internal phone numbers for subscribers, groups and emergency calls.

Stored names are called and displayed depending on the priority for name display (name sources) in

- Calls/conversations
- All call lists
- suggestions lists in dial preparation.

 Further help under [Identities](#)


In addition, an individual ring tone can be assigned to the contact.

 Further help under [Sound](#)

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.

Locally saved contacts can be saved using backup.

 Further help under [Backup and restore](#)

ME Contact

The ME contact can be used to store information about the user. The corresponding image is displayed on the start screen. Image and name match the device image and name.

LDAP

Using LDAP (Lightweight Directory Access Protocol), you can, for example, make phone books on a PBX available to the phone.

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.



Google

The phone allows synchronisation with the contact data of a Google account.



Requirement for configuration

- At least one Google account set up.



Configuration

-  **Note:** The following restrictions apply when setting up:
 - Only in the phone and via provisioning: create/edit contacts.
 - Only in the web interface: set up the image of the ME contact (device image), manage Google accounts and unrestricted LDAP settings
-  **Note:** Only experts should make the settings for LDAP filter. LDAP filter syntax is used. RFC 2254 and RFC 4515 are used.


Web interface:

- Image of the ME contact: **Device settings** > **Device** > **Edit image**
 -  Details about the settings are in [Device settings](#)
- **LDAP/Google**
 -  Details about the settings are in [LDAP/Google](#)

Phone:

- **Contacts**
 -  Description of the operation under [Contacts](#)
- **Settings** > **Contacts/LDAP**
 -  Details about the settings are in [Contacts/LDAP](#)

Provisioning:

-  Details about provisioning this function in the Auerswald DokuWiki at [Contacts and Contacts/LDAP](#)


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.




The implementation of CTI takes place in the devices of the COMfortel D-series via Action-URL.

 Further help under [Action URL](#)

Date and time


The phone absolutely requires a time and has an internal clock for this purpose. The existing time information is a prerequisite for functions such as automatic updates but also encrypted telephony. It is also used to log incoming, outgoing and missed calls.

The time is set automatically by querying an NTP server. This NTP server that can be reached from the phone must either be entered in the phone or provisioned e.g. by a PBX.


-  Further help under [Using provisioning](#)
-  Further details can be found in the instructions for the PBX.
-  For more information about exchanging data with public NTP servers, please consult the phone's privacy policy. You will find this in the Internet under: [Auerswald Support](#)/[FONtevo Support](#) or here:
Dashboard > Legal > Data protection

Configuration


Web interface:

- **Date and time > Basic 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:

 Details about provisioning this function in the [Auerswald DokuWiki](#)

Direct call

The Direct call function supports people who need assistance or children who are unable to dial a specific number or perform other actions on the telephone. To use this function, both the Destination and the Waiting time before call starts in s must be defined. The function will not become active unless a Destination is entered. As soon as the receiver is picked up or placed next to the device, the Destination is called after the defined Waiting time before call starts in s has elapsed.

The direct call can be started immediately by pressing one of the following keys

- 
- 
- 

The Direct call countdown is cancelled if:

- a different phone number or digit is entered
- the receiver is hung up

Configuration

Web interface:

- **Telephony > Call settings > Direct call**

 Details about the settings are in [Direct call](#)

Direct call

Phone:

- **Settings > Telephony > Direct call**



Details about the settings are in [Direct call](#)

Provisioning:



Details about provisioning this function in the [Auerswald DokuWiki](#)

Display and LED

The phone has a touch display. You can operate it using the keys or touch controls.

The phone display shows information about calls, conversations and activated functions.

➤ Further help under [Display \(Home screen\)](#)

➤ Further help under [Telephoning](#)

The LEDs (message key LED, housing LED, function key LEDs) signal information about calls, conversations and activated functions by lighting up/flashing in different colours.

➤ Further help under [Keys and LEDs](#)

➤ Further help under [Function keys](#)

To clean without accidentally selecting or activating functions, the phone can be put into cleaning mode.

➤ Further help under [Cleaning](#)

The display and LED can be configured with different settings to suit existing workplace conditions and individual preferences.

Brightness

By changing the brightness, the display can be adapted to very bright or very dark environments. Changes affect all connected key extension modules.

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

To cancel the idle state, you can:

- press any key
- pick up the receiver

Tapping the display does not bring the phone out of its idle state.

The default value is: **Not automatically**.

Device image and name

An image and a name can be set up to be displayed on the home screen (e.g. individually adapted to the person using it).

The image and name are also assigned to the so-called ICH contact.


 Further help under [Contacts](#)

Image requirements:

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

The image is scaled and cropped to 64 x 64 px, the displayed image section is round.

The name is additionally used for the following purposes:

- displayed in the browser tab
- 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

Wallpaper


The default wallpaper of the phone's home screen can be supplemented with a wallpaper image. This allows the phone to be customised, e.g., based on the company's own corporate design or according to your own preferences.

Image requirements:

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

If an image does not correspond to the specified dimensions, the image will be scaled and cropped (see area distribution on the display).

As an alternative to a static image, you can also set a camera as the wallpaper for the home screen.

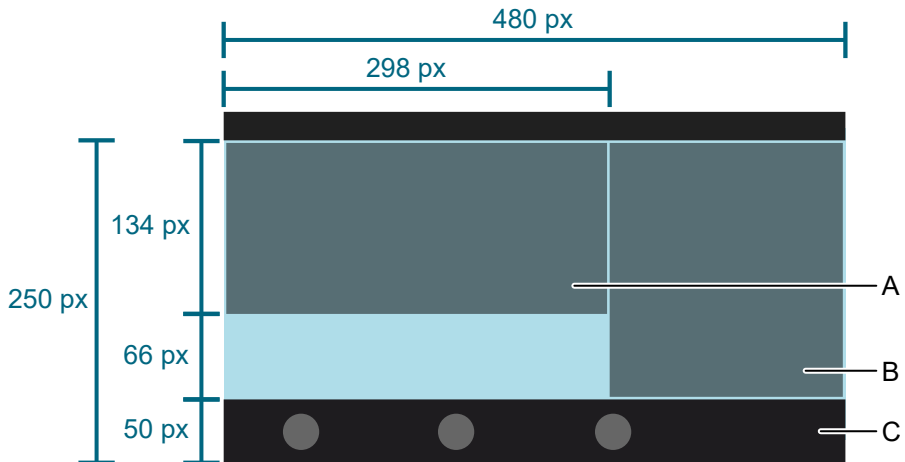
 Further help under [Cameras](#)

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.

Configuration

Web interface:

- **Device settings > Device**
 -  Details about the settings are in [Device settings](#)
 - **Display and LED**
 -  Details about the settings are in [Display and LED](#)
-

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.
 -  Details about the settings are in [Display and LED](#)
- **Settings > About phone > Device name**
 -  Details of the information displayed under [About phone](#)
- Gallery app  > choose picture >  > **Set picture as**
 -  Details about the settings are in [Gallery](#)
- USB mass storage > choose picture >  > **Set picture as**
 -  **Note:** The image remains on the phone even after removing the USB mass storage device.

Provisioning:

- Details about provisioning this function in the [Auerswald DokuWiki](#)
- Further help on the wallpaper in the [Auerswald DokuWiki](#)

Video: Setting up a wallpaper image

- Link to video (only in German) <https://www.youtube.com/watch?v=sAu2iLfv3P8>

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](#)
- **Function keys > Choose a key > Function: Do not disturb**
 -  Details about the settings are in [Function keys](#)

Phone:

- **Settings > Telephony > Do not disturb**
 -  Details about the settings are in [Telephony](#)
- **Settings > Function keys > Choose a key > Choose a function: Do not disturb**
 -  Details about the settings are in [Function keys](#)


Provisioning:

-  Details about provisioning this function in the Auerswald DokuWiki at [Setting](#) and [Key](#)

DTMF



If the numeric keys on the telephone are pressed during an existing connection, so-called Dual Tone Multifrequencies (DTMF) are generated. This allows specific information to be transmitted to the PBX, provider or destination. To automate this, you can assign a function key with a phone number to be dialed and a DTMF sequence to be transmitted afterwards.

For correct execution, the method of DTMF transmission must be set separately for identities.



 Further help under [Identities](#)

Configuration


Web interface:

- **Identities > Options for experts > DTMF method**
 -  Details about the settings are in [Identities](#)
- **Function keys> Choose a key >Function:DTMF call**
 -  Details about the settings are in [Function keys](#)

Phone:

- **Settings > Identities > Options for experts > SIP > DTMF method**
 -  Details about the settings are in [Identities](#)
- **Settings > Function keys> Choose a key >Choose a function:DTMF call**
 -  Details about the settings are in [Function keys](#)

Provisioning:

-  Details about provisioning this function in the Auerswald DokuWiki at Setting and Key

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.

i 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).

i Note: New parameters have been defined for some function keys (e.g. Speed dial) from firmware version 1.10. If functionality is restricted following an update to a higher firmware version, it might be sensible to delete the particular key and then configure it again.

LED signalling

Each LED indicates the status depending on the key definition.

*: The function key or the described behaviour of the LED is only visible if the function key has been provisioned by a PBX or activated by manufacturer templates.

** : The function key or the described behaviour of the LED is only visible if the function key was added by importing the corresponding template.

Function keys

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
	shining green	Registered target subscriber
	off	No active calls or conversations
	flashing yellow	Sending subscription to PBX
	shining yellow	Subscription failed unregistered target subscriber with enabled function Signal presence
Identity	shining green	Active, registered identity, not a standard identity
	off	Active, registered identity, not a default identity

Function keys

Function	LED display	Status
Call waiting	flashing yellow	current registration attempt
	shining yellow	incorrect identity
	shining green	Function enabled
	off	Function disabled
Do not disturb	shining red	Function enabled
	off	Function disabled
	Flashing red *	Time gap between pressing the function key and acknowledgement by the PBX/provider
	Flashing yellow *	Current attempt to register the function key on the PBX/provider, using SIP Subscription
	Shining yellow *	Error
Automatic configuration switching*	shining green	Function enabled
	off	Function disabled

Function keys

Function	LED display	Status
Bluetooth	off	Bluetooth not active
	shining green	Bluetooth active
	shining yellow	Error: perhaps no Bluetooth dongle inserted
Browser	None	
DTMF-Relay	None	
DTMF call	None	
Group, Group (incoming), Group (outgoing)*	shining green	Logged into the group
	off	Logged out of the group
	flashing green	Login process
	flashing yellow	Sending subscription to PBX
	shining yellow	Subscription failed
Activate config*	shining green	Active configuration

Function keys

Function	LED display	Status
Mute ringing	off	Configuration inactive
	shining red	Ringer is off
	off	Ringer is on
Park position	shining red	Call in the internal park zone
	off	Free park position
Pickup list	None	
Pickups	None	
Cleaning	None	
Relays	Flashing green (approx. 2 sec.)	Relay has been switched
Anonymous call	shining green	Function enabled
	off	Function disabled
Call forwarding, on busy, on no reply, Immediately	shining green	Function enabled
	off	Function disabled

Function keys

Function	LED display	Status
	Flashing green *	Time gap between pressing the function key and acknowledgement by the PBX/provider
	Flashing yellow *	Current attempt to register the function key on the PBX/provider, using SIP Subscription
	shining yellow	Error, function key perhaps not completely configured
SIP message	None	
Default identity**	shining green	active and registered identity
Silent Alert	None	
Call forwarding ext. Calling, on busy, on no reply, Immediately*	shining green	Function enabled
	off	Function disabled
	flashing green	Time gap between pressing the function key and acknowledgement by the PBX/provider

Function keys

Function	LED display	Status
	flashing yellow	Current attempt to register the function key on the PBX/provider, using SIP Subscription
	shining yellow	Error, function key perhaps not completely configured
VPN	shining green	Function enabled
	flashing yellow	Establishing VPN connection
	off	Function disabled
XML Minibrowser	None	

Configuration

Web interface:

- **Function keys**

 Details about the settings are in [Function keys](#)

Phone:

- **Settings > Function keys**

or

Function keys

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

 Details about the settings are in [Function keys](#)

Provisioning:

 Further help in the [Auerswald DokuWiki](#)

Process for assigning function keys using the phone

Setting up a new function key on the telephone:

- **+ Add entry to list**

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 yellow).

 **Note:** If a key to which a function has not been assigned is pressed for a longer time (long press), the menu for configuring the selected key opens automatically.

Function keys

- If necessary, change between key levels by pressing the control rocker.

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 [Using 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.


 Further help in the [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](#)

 Further help in the [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

Function keys

- .bmp
- .gif (animations are not displayed)

 Link to video (only in German) <https://www.youtube.com/watch?v=bYMfJZkbuyU>



 Details about provisioning this function in the [Auerswald DokuWiki](#)

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](#)
- **Function keys> Choose a key >Function: e.g.GrouporActivate config**
 -  Details about the settings are in [Function keys](#)

Phone:


- **Settings > Provisioning > Activate vendor templates**
 -  Details about the settings are in [Using provisioning](#)
- **Settings > Function keys> Choose a key >Choose a function: e.g.GrouporActivate config**
 -  Details about the settings are in [Function keys](#)

Provisioning:

-  Further help in the [Auerswald DokuWiki](#)

Identities

Setting up an identity is mandatory for the phone to operate and is therefore part of the initial setup.

 For the initial setup, please also consult the phone's instructions.

An identity contains all the configuration data needed to register with a PBX/provider and be able to make calls via it.

Up to 6 identities for different PBXs and/or VoIP providers can be set up for the phone and activated if necessary (also as a fallback). This means the phone can e.g. be operated in parallel for several locations or companies on several PBXs.

Default identity for outgoing calls

Incoming calls are possible via all activated and registered identities. The current standard identity is automatically used for outgoing calls.

If only one identity has been configured, it is automatically the default identity. However, if more than one identity is set up and activated, you can switch from the first default identity to another using a function key.

 **Caution:** The default identity does not switch automatically.

- If a default identity fails, the LED of the associated function key flashes yellow.
- Fallback identities can be set up to maintain operations in the event of failures.

A separate "Identity" function key is required for each identity to switch the default identity. By pressing the function key, the associated identity

Identities

becomes the default identity. The previous default identity loses this status and is only available for future calls.

Switching (toggling) between the existing identities can also be carried out using a single "Default identity" function key. The identity can optionally be automatically adjusted in all function keys assigned to speed dialing.

i Note: The "Default Identity" function key is not included in the standard scope of the phone and can be added by importing the corresponding template.

 Further help in the Auerswald DokuWiki

Fallback identity

A fallback identity that has been configured maintains the operation of the system if the actively used identities fail. The phone also transfers the function keys from the failed identity to the fallback identity, provided the functions are also available on the fallback PBX or the fallback provider. The phone can continue to be used as usual.

If an identity fails, the assigned fallback identity is automatically registered on the PBX/provider. This process starts automatically and may take a few minutes. Once a fallback identity is active, the message key lights up and informs the user of the current status.

After the originally used identity is restored, the fallback solution is automatically disabled and the original operation resumes.

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

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

Security

Connections are encrypted to prevent listening in.

The connection setup and termination, as well as the signaling is encrypted with SIPS. SRTP (Secure Real-Time Transport Protocol) is used to encrypt call data.

To use SIPS, a certificate must be provided. The certificate must be known to the PBX/provider.

! **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.

Network

For each identity, various settings for outbound proxy, NAT, various ports, etc. must be made.

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 provider/administrator for the outbound proxy

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.

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

Requirements for configuration

- DNS server set up
- STUN server set up

 Further help under [Network](#)

Priority for name display - name sources

The phone can determine the name of a phone number, which is shown on the display for incoming/outgoing calls, from various name sources.

These name sources are available:

- **Speed dial**
- **Contacts**
- **SIP-P-Asserted-Identity**
- **SIP-To-From**
- **SIP-Contact**
- **LDAP**

The set order of the name sources corresponds to the priority with which a determined name is used.

Note: The sequence in which the name sources are displayed corresponds to their default settings.

Note: If the list is empty, only the phone numbers are displayed.

For SIP-P-Asserted-Identity, SIP-To-From and SIP-Contact: if the SIP contact in the SIP header contains a display name, this is the name used in the display.

For speed dialling keys, contacts and LDAP: The phone number in memory is shown on the display. If an entry with a suitable number is found, its name is displayed. If a label has been set for a speed dialling key, this label is displayed.

Support for voicemail boxes in the PBX

A voicemail box configured in the PBX can be linked to the selected identity by specifying the associated voicemail number. Messages and announcements are not stored on the phone, but on the PBX.

Important: Voicemail boxes from the following PBXs are supported:

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


Requirements for configuration

You need the following information:

Identities

- PBX:
 - The internal number configured for the phone (Example: 557) → **SIP Username**
 - The associated password → **Password**
 - The PBX's IP address (Example: 192.168.196.37) → **SIP Registrar**
- Provider:
 - The username configured for the account (Example: phonenumber@provider.co.uk) → **SIP Username**
 - The associated password → **Password**
 - The VoIP provider's URL (Example: providername.co.uk) → **SIP Registrar**

Configuration

 **Note:** Setting up via provisioning is particularly recommended when operating on a PBX.


 Further help under [Using provisioning](#)


Manual setup:


1. Make settings, input required for: **SIP Username, Password, SIP Registrar**
2. Enable an identity

Web interface:


- **Identities**

 Details about the settings are in [Identities](#)

 **Note:** Most of the settings required for identities can be set separately for each identity. Only some network settings relating to telephony can be found across identities in the topology area of the network settings (e.g. LLDP, jitter buffer, STUN server).

 Further help under [Network](#)


- **Function keys**> Choose a key >**Function: Identity / Default identity** / various


 **Note:** Various functions available for function keys such as speed dialling, do not disturb and call forwarding refer to individual identities. If a function is to be used for all established identities, the relevant function key must be configured for each identity (exception: fallback identity).


 Details about the settings are in [Function keys](#)

Phone:


- **Settings > Identities**

 Details about the settings are in [Identities](#)

 **Note:** Most of the settings required for identities can be set separately for each identity. Only some network settings relating to telephony can be found across identities in the topology area of the network settings (e.g. LLDP, jitter buffer, STUN server).


 Further help under [Network](#)

- **Settings > Function keys**> Choose a key >**Choose a function: Identity / Default identity** / various


 **Note:** Various functions available for function keys such as speed dialling, do not disturb and call forwarding refer to individual identities. If a function is to be used for all established identities, the relevant function key must be configured for each identity (exception: fallback identity).

 Details about the settings are in [Function keys](#)


Provisioning:

 Details about provisioning this function in the Auerswald DokuWiki at [Setting](#) and [Key](#)

Video: Setup on a Telekom Cloud PBX

 Link to video (only in German) <https://www.youtube.com/watch?v=v5v923ASa2M>

Video: Setting up a fallback identity

 Link to video (only in German) <https://www.youtube.com/watch?v=3aJlpAHd0Zg>

Incoming calls

➤ Description of operation and display under [Incoming calls](#)

Incoming calls can be distinguished by different ringtones.

➤ Further help under [Sound](#)

With the call waiting function, incoming calls can be signalled during an ongoing call.

➤ Further help under [Call waiting](#)

With Do-not-Disturb, incoming calls can be switched off if required.

➤ Further help under [Do not disturb](#)

Using pick-up you can take a call on your own phone that was originally sent to another internal telephone or to an own voice mailbox.

➤ Further help under [Pickup](#)

Use the Call forwarding function to forward calls independently of the current situation (immediately, on busy or on no reply).

➤ Further help under [Call forwarding](#)

The call binding function allows calls from specific phone numbers (e.g. calls from the door) to be linked to a camera and up to two function keys.


➤ Further help under [Call bindings](#)

Incoming calls

The automatic call acceptance function allows the phone to answer calls automatically.

 Further help under [Automatic call acceptance](#)

Missed calls are saved in the call list.


 Further help under [Call history](#)

InterCom

InterCom makes it possible to establish an audio connection with a phone without having to actively answer the call.

Use case Announcement

One application is announcements to phones, e.g. for announcements in the consulting room of a doctor's office.

 **Important:** Please note any necessary activations and restrictions as well as time limits. An InterCom connection is limited to 2 or 5 minutes, depending on the type and version of the PBX.

 Consult the PBX manual for this.

The following settings/function keys are required for the application described here:

- InterCom source
 - Configured speed dialling key with parameter activated:**InterCom**
- InterCom destination
 - On a PBX: granted InterCom permission
 - Activated function:**On SIP request**(is provisioned by the PBX when provisioning is activated)
 - Optional:**Beep when connecting, Interrupt active calls**

Process at the InterCom source:

1. Press the speed dialling key configured for InterCom.

The function key LED flashes red.


2. As soon as a voice connection is established, the LED of the function key lights up red.

Process at the InterCom destination:


1. A short ringing sound will be heard when the setting is enabled: **Beep when connecting**.
2. A bidirectional connection is established so that a person nearby can speak to the caller via the resulting intercom.

Use case Alarm call

The silent alarm function allows you to start a "silent alarm call" to any phone number. Preferably, the entered destination should be a configured InterCom destination. The connection will then be established immediately. Optionally, existing calls can be interrupted at the InterCom destination.

 **Important:** Please note any necessary activations and restrictions as well as time limits. An InterCom connection is limited to 2 or 5 minutes, depending on the type and version of the PBX.


 Consult the PBX manual for this.

 **Important:** Inform the users of the target telephones about the configured alarm function.

The following settings are required for the application described here:


- InterCom destination
 - On a PBX: granted InterCom permission
 - Activated function: **On SIP request** (is provisioned by the PBX when provisioning is activated)

- Optional: **Beep when connecting, Interrupt active calls**


 Further help under [Silent Alert](#)

Configuration (InterCom destination)


Web interface:

- **Telephony > Call settings > Automatic call acceptance**
 -  Details about the settings are in [Automatic call acceptance](#)

Phone:


- **Settings > Telephony > Automatic call acceptance**
 -  Details about the settings are in [Telephony](#)

Provisioning:

 Details about provisioning this function in the [Auerswald DokuWiki](#)

Configuration (InterCom source)

Web interface:


- **Function keys > new function key > Speed dial**
 -  Details about the settings are in [Function keys](#)

Phone:

- **Settings > Function keys > new function key > Speed dial**

 Details about the settings are in [Function keys](#)

Provisioning:

 Details about provisioning this function in the [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:

 Details about provisioning this function in the [Auerswald DokuWiki](#)

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


Multicast

The phones are able to play a received audio stream in hands-free mode. A list of multicasts can be created for this purpose.

Configuration


Web interface:

- **Telephony > Multicast**


 Details about the settings are in [Multicast](#)

Phone:

- **Settings > Telephony > Multicast reception**

 Details about the settings are in [Multicast](#)

Provisioning:

 Details about provisioning this function in the Auerswald DokuWiki

Network

The phone is integrated into a local network and receives an IP address through which the integrated web server can also be reached for configuration.

These protocols can be set up for the device:

- IPv4
- IPv6
- VLAN
- VPN
- LLDP

VLAN

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

Requirements for configuration

- VLAN is provided in the network

VPN

To be able to securely connect remote devices with each other (e.g. telephones as external extensions on a PBX), you need a VPN connection between the devices.

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 configuration

- 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.

A function key can be set up to easily switch the VPN connection on and off as needed.

LLDP


IP phones use LLDP to collect and query device-specific information from devices that are directly connected in the network. This automatically updates the VLAN configurations contained in the LLDP packages. The VLAN configurations are uploaded from the switch to the IP phone. An IP phone can therefore be connected to any LLDP-enabled switch, receive its VLAN configurations (internal port) and then start communications via the VLAN (plug and play networks). To do this, the IP phone sends its device information using the LLDP-MED software upgrade.

Requirement for use

- Devices that are directly connected in the network must also use LLDP.


Configuration


- ➔ To set up the network connection for the first time, consult the phone's instructions.


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

Web interface:

- **Network**

-  Details about the settings are in [Network](#)

-  **Note:** Some network settings relating to telephony can be found across identities in the topology area of the network settings (e.g. LLDP, jitter buffer, STUN server). Others can be set separately for each identity (e.g. NAT, outbound proxy, certificates).


-  Further help under [Identities](#)


- **Function keys** > Choose a key > **Function: VPN**


-  Details about the settings are in [Function keys](#)

Phone:

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

-  Details about the settings are in [Network](#)




-  **Note:** Some network settings relating to telephony can be found across identities in the topology area of the network settings (e.g. LLDP, jitter buffer, STUN server). Others can be set separately for each identity (e.g. NAT, outbound proxy, certificates).

-  Further help under [Identities](#)

- **Settings** > **Function keys** > Choose a key > **Choose a function: VPN**

-  Details about the settings are in [Function keys](#)


Provisioning:

-  Details about provisioning this function in the Auerswald DokuWiki at [Setting](#) and [Key](#)
-  A VPN example configuration, for the connection of COMfortel D-series telephones to the COMtrexx, is described in the Auerswald DokuWiki.
-  **Note:** An example VPN configuration for a FRITZ!box is also shown in the Auerswald DokuWiki. This configuration cannot be applied to VPN connections that are to be set up in a company environment.

Notifications

The descriptions of particular events, such as healthcare-related alarm messages, can be displayed as popup messages. In addition, new popup messages can be announced with an audible tone. The following functions are available for popup messages:

- **Clear**
- **Ignore**

Hides the popup message. Press  to display previous notifications and delete them if required.


Requirement for use

- Device must be operating on a PBX/provider with a connected alarm server
- optional: activated setting **Play popup notification sound**

Configuration

Phone:

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

 Details about the settings are in [Identities](#)

Provisioning:

 Further help in the [Auerswald DokuWiki](#)

Park position

If a park position key has been configured, press this key to park a call or unpark it again. By default, you can configure up to ten park position keys.

i Note: By activating specific extra features the system, it can be extended to 30 park positions for specific countries.

The hold time is configured in the PBX and displays the maximum number of minutes that a call can be held in the internal park zone.

Requirement for use

- Function configured on the PBX: **Call on hold**
- Configured park position key

Configuration

Web interface:

- **Function keys**> Choose a key >**Function:Park position**

 Details about the settings are in [Function keys](#)

Phone:

- **Settings > Function keys**> Choose a key >**Choose a function:Park position**

 Details about the settings are in [Function keys](#)

Provisioning:

 Further help in the [Auerswald DokuWiki](#)

Process


- An active call is in progress.
- Press a free park position key to park the call (LED stops shining on the key).

No music on hold is played.

The LED on the park position key shines red.

- Press an in-use park position key (key's LED is shining red) to unpark a call from that park position.

The park position key's LED then stops shining.

 **Note:** If the call is parked for longer than the hold time specified in the PBX, you have these options:


- A signal is sent to the user who parked the call in the parking zone.
- If this user is busy, the call is kept in the park zone again for the set time.
- If the hold time expires a second time, without the call being taken, the connection is disconnected and the caller hears the busy signal.

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:

- From the factory settings: Password dialogue is displayed when user enters phone's IP address in web browser

- **User**




Details about the settings are in [Login](#)

Phone:


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

Provisioning:

 Details about provisioning this function in the [Auerswald DokuWiki](#)

Pickup

You can use the pick-up function to take a call on your own phone that was being made to another phone.

 Description of the operation under [Pickup](#)

Requirements for use:

- Permission granted in the PBX for **Pickup**
- Function key with the speed dial for the phone that is to be called configured on it.

Boss/secretary telephone use case

The pickup function allows the boss telephone to be protected from direct calls by signalling and accepting them in the secretary office.

The following settings/function keys are required for the application described here:

- Secretary telephone (can only be set up at a COMfortel D-400/D-600)
 - **Open pickup list auto.** active
 - **Play pickup tone** active
 - Function key **Speed dial** for call number boss telephone, with the following activated options: **Pickup**, **Pickup-choice on key-press**, **Signal presence**
- Boss telephone
 - Function key **Mute ringing** to switch the phone to silent if required

Pickup

Function for an incoming call:

- The call is displayed on the boss phone, the phone remains silent.

The pickup menu appears on the secretary phone and an attention tone is played.

Options:

- The secretary phone answers the call, the boss phone stops ringing.
- The boss phone answers the call, the secretary phone stops ringing, the speed dialling key on the secretary phone lights up red.

The following function keys are also useful:

- Secretary telephone

- Function key **Pickup list**

Turns on/off notification via pickup list of new calls for the boss phone. This way, there are no annoying notification tones and displays when the boss/secretary function is not needed.

- Function key **SIP message** for the call number of the boss telephone with a corresponding info text, e.g. "Important call for you!".

In this way, visual and acoustic information can be provided in case of need. Silent ringing on the boss phone does not affect the volume for this notification. Wipe to the left to delete the message.

- Boss telephone

- Function key **SIP message** for the call number of the secretary telephone with a corresponding info text, e.g. "Please put through!".

Pickup

This allows a response to be sent that is also displayed in the call.
Wipe to the left to delete the message.

Configuration

Web interface:

- **Function keys** > Choose a key > **Function:Speed dial/Pickup list/Pickups**
 - Details about the settings are in [Function keys](#)
- **Telephony** > **Call settings** > **Pickup**
 - Details about the settings are in [Pickup](#)

Phone:

- **Settings** > **Function keys** > Choose a key > **Choose a function:Speed dial/Pickup list/Pickups**
 - Details about the settings are in [Function keys](#)
- **Settings** > **Telephony** > **Pickup**
 - Details about the settings are in [Telephony](#)
- **AppPickups**
 - Details about the settings are in [Pickup](#)

Provisioning:

- Further help in the [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 function key →| Login / ←| Logout is provisioned by the PBX.
 -  **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. →| Login: The user uses the Login function key to log on to the required phone 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 [Call history](#)

 Details about provisioning this function in the [Auerswald DokuWiki](#)

Service functions, problem solving

If the phone malfunctions, various service-relevant data can be retrieved and saved. These can then be sent to the technical departments (Service, Development) so that the cause of the fault can be investigated.



In individual cases it may be useful or necessary to restart the phone or reset it to its factory setting.

 Please refer for evaluation to [Auerswald Support](#) / [FONtevo Support](#).


Device Information

If required, you can display detailed information about the phone.

Web interface:

- **Dashboard**
 -  Details of the information displayed under [Status information](#)
- **Dashboard** > : Kopiert die Status-Informationen in die Zwischenablage.

Phone:

- **Settings > About phone**
 -  Details of the information displayed under [About phone](#)

VPN status

If required, the status of an established VPN connection can be displayed.

Web interface:

- **Dashboard**

 Details of the information displayed under [Status information](#)

Phone:

- **Status Line**

 Further help under [Display \(Home screen\)](#)

Log file, Logging

If the phone malfunctions, a log file can be saved. The logging process records all important events, errors and warnings.

 **Important:** Note the following legal notes before downloading the log file.

The log file may contain, amongst others, the following legally especially protected components:

- Connection data sets with destination, source, and time information of a telecommunication connection
- Configuration data of the telephone including passwords used
- Contact data of the telephone


All users of the phone must be informed before storing the log file, that a transfer of this content takes place and by whom the obtained data is processed. It is absolutely necessary to store the data safely and in accordance with the legal requirements. If you want to make the log file available to your specialised dealer or to the manufacturer for error analysis, you must make sure that the legal requirements are fulfilled.

Download the log file via the web interface: **Dashboard** > .

The additional recording of debug information can be switched on as follows:


Web interface:

- **Access > Logging**


 Details about the settings are in [Logging](#)

Phone:

- **Settings > Access**


 Details about the settings are in [Access](#)

Provisioning:

 Details about provisioning this function in the [Auerswald DokuWiki](#)

Service data

If the phone malfunctions, a package of all service-relevant data can be saved.

 **Important:** Note the following legal notes before saving the service data.

The service data includes, amongst others, the following legally especially protected components:

- Configuration of the telephone including passwords used
- Names of internal subscribers/users
- Address books/contacts of the phone
- Connection data sets with destination, source, and time information of a telecommunication connection
- VPN information and VPN credentials

Service functions, problem solving


- If necessary, Webcam and access data
- LDAP information
- If necessary, information on sync accounts (CalDAV, CardDAV)

All users of the phone must be informed before storing the service data, that a transfer of this content takes place and by whom the obtained data is processed. It is absolutely necessary to store the data safely and in accordance with the legal requirements. If you want to make the service data available to your specialised dealer or to the manufacturer for error analysis, you must make sure that the legal requirements are fulfilled.

Download the service data via the web interface: **Dashboard > Service data**.

Trace

If the phone malfunctions, a network log can be recorded.

 **Important:** Comply with the legal notes below before recording a network data stream.

The recording can contain the following components:

- Data streams of other computers in the network
- Connection data sets with destination, source, and time information of a telecommunication connection
- The spoken word of both ends of a telecommunication connection
- Phone configuration data, along with the associated PINs and passwords
- Directory data with names and phone numbers

All the phone's users must be informed that this content will be transferred, and who will process the data obtained, before the

data is recorded. It is essential to store the recorded data securely and in accordance with legal requirements. If you want to provide your specialised dealer or the manufacturer with the recorded data, for error analysis, you must ensure that the legal requirements are fulfilled.

1. Start recording via web interface: **Dashboard > Start Trace**.

The following rules/restrictions apply:

- Pop-up blocker has been disabled in the browser or an exception rule has been defined.
2. If the malfunction can easily be reproduced, try to trigger it.
 3. Stop the recording.
 4. The file is saved automatically and displayed in the browser's downloads list.

Screenshot

For example, document a display error in the display by saving a screenshot.

This is done at the moment of display via the web interface: **Dashboard > Screenshot**

Restart phone

The phone can be restarted as follows:

Web interface:

- **Update > Restart and factory reset > Restart phone**

Phone:

- **Settings > Update > Restart phone**

Or:

1. Disconnect the power supply (network cable + plug-in power supply).
2. Restore the power supply (network cable + power adapter).

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

Reset to default

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 secure personal data and settings, a data backup can be made in advance.

 Further help under [Backup and restore](#)

The phone can be reset to delivery status as follows:

Web interface:

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



Phone:

- **Settings > Update > Reset to default**

In the event of an error, if the menu is no longer accessible:

1. Disconnect the power supply (network cable + plug-in power supply).


The power supply is no longer provided.

2. Press the keys at the same time  + . **Press and hold the keys.**
3. Restore the power supply (network cable + power adapter).

The housing LED flashes quickly at first

The housing LED flashes more slowly after a short time.

4. Release the keys as soon as the housing LED flashes more slowly.


 **Note:** If you do not release the keys within the specified time window, the phone will simply reboot.

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


Silent Alert


The Silent alarm function offers the possibility of unnoticed triggering an action at the remote station (e.g. alarm server) informed via URL in the event of a threat, an escalating conversation or a hostage-taking.


In addition, it is possible to start a “Silent alarm call” to any phone number. Preferably, the entered destination should be a configured InterCom destination. The connection will then be established immediately. Optionally, existing calls can be interrupted at the InterCom destination.


 **Important:** Please note any necessary activations and restrictions as well as time limits. An InterCom connection is limited to 2 or 5 minutes, depending on the type and version of the PBX.

 Consult the PBX manual for this.

 Further help under [InterCom](#)

 **Important:** Inform the users of the target telephones about the configured alarm function.

 **Note:** If a message is to be sent to a remote station only in the event of a health emergency, the SIP message function key can also be used for this purpose.

 Further help under [SIP message](#)

Configuration

Web interface:

- **Function keys**> Choose a key >**Function:Silent Alert**


 Details about the settings are in [Function keys](#)

Phone:

- **Settings > Function keys> Choose a key >Choose a function:Silent Alert**

 Details about the settings are in [Function keys](#)



Provisioning:

 Details about provisioning this function in the [Auerswald DokuWiki](#)

Process

1. A Silent alarm function key is pressed.
2. Depending on the predefined delay, a number of different scenarios are possible:
 - Delay 0 sec: The silent alarm starts immediately.
 - Delay min. 1 sec: A notification with a countdown timer appears on the display.
 - **Swipe notification right or left**
or
Dismiss: The silent alarm is cancelled.
 - **Start immediately!:** The silent alarm starts immediately.
 - **Swipe the notification upwards:** The notification is hidden. The silent alarm starts after the delay time has elapsed.

Silent Alert

3. Depending on the URL and/or phone number entered, the following happens:
- An action is triggered at the remote station informed via URL (e.g. alarm server).
 - The configured destination number is called. The phone in “Silent alarm call” mode behaves differently than in a “normal” call:
 - The call screen appears only briefly, then the display returns to the home screen.
 - The case LED remains off.
 - If the destination phone answers (automatically or manually), a short message is displayed.
 - The established connection only has one-way audio. This means that the destination phone can listen to what is happening in the room, while the phone in “Silent alarm call” mode remains silent.
 - The phone in “Silent alarm call” mode cannot be called.
 - End the connection on the phone in “Silent alarm call” mode:  > 

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](#)
- adapted .xml file with which the PBX function can be triggered.

Configuration

Provisioning:

- Further help in the [Auerswald DokuWiki](#)

Process


1. Provide a suitable provisioning file.
2. Activate **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 message

The phone can send and receive SIP messages. A set message can be sent to a recipient with an appropriately configured function key. A received SIP message is displayed as a notification.


Examples

- In a care home, repeated messages that the patient/resident in room X needs help.
- Using sent SIP messages to warn of possible dangers. A silent alarm can also be triggered for this purpose.


 Further help under [Silent Alert](#)

Configuration


Web interface:

- **Function keys**> Choose a key >**Function:SIP message**
 Details about the settings are in [Function keys](#)

Phone:

- **Settings** > **Function keys**> Choose a key >**Choose a function:SIP message**
 Details about the settings are in [Function keys](#)

Provisioning:

-  Details about provisioning this function in the Auerswald DokuWiki at [Setting](#) and [Key](#)

Process


1. A SIP message function key is pressed.
2. Depending on the predefined delay, a number of different scenarios are possible:
 - Delay 0 sec: The sending of the SIP message starts immediately.
 - Delay min. 1 sec: A notification with a countdown timer appears on the display.
 - **Swipe notification right or left**
or
Dismiss: The sending of the SIP message is aborted.
 - **Start immediately!:** The SIP message will be sent immediately.
 - **Swipe the notification upwards:** The notification is hidden. The SIP message is sent after the delay time has elapsed.
3. An action is triggered at the remote station informed via URL (e.g. alarm server).


Sound

You can use different ringtones to differentiate the incoming calls, wake-up calls (from the app Clock) and notifications.

 Further help under [Apps](#)

These ringtones can be assigned to the different call types, identities and callers (if set up as a contact). You can make these assignments depending on which information you think is the most important. Configure the required settings as follows.

 Further help under [Contacts](#)

 Further help under [Identities](#)

If you want to switch the ringtone to silent from time to time so as not to be disturbed, this can be done simply by pressing a function key. In this state, the phone continues to signal calls via the display. Pressing the key again restores the original status.

Priority for defining ringtones

The phone checks the existing ringtone settings for incoming calls and determines the ringtone used based on the following order.

1. Contact ringtone (the telephone number of the caller is checked)
2. Ringtone that can be downloaded externally via a valid URL (the alert info in the SIP Invite is checked)
3. Ringtone by call type (the alert info in the SIP Invite is checked)
4. Identity ringtone
5. Default ringtone

6. Android fallback ringtone

Ringtones by call type

The ringtones available in the phone can be assigned to different call types using an alert info in SIP Invite. This allows, for example, different call types such as internal, external, group and door calls to be distinguished by different ring tones when operating on a PBX.

By default, six search terms are already predefined in the list of call types.

- **extern** for external calls
- **intern** for internal calls
- **group** for group calls
- **door** for door calls
- **alarm** for alarm calls
- **silent** for silent calls

Depending on the support of the PBX or the provider, further search terms can be added to the list, for example:

- **group-123** for calls to the group number 123
- **external-911977** for calls to the external number 911977
- **door-511** for calls from the door 51, door bell button 1

The list is completely evaluated during a call in order to determine search terms that match the alert info. If there are several matches, the entry with the longest search term is used.

Exception: If a matching search term is found with RegExp expressions, the associated ringtone is preferred.

Own ringtones

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.

 **Important:** Personalised ringtones will not be backed up.

 Further help under [Backup and restore](#)

Handset sidetone

To enable a better sound experience during a conversation at the handset, a sidetone is played in the handset as standard. The sidetone is an audible feedback indicating an active transmission. A lack of sidetone, for example, can lead to speaking too loudly.


This deliberate feedback can interfere with loud ambient noise. In permanently noisy environments, it therefore makes sense to switch off the sidetone. The volume is automatically increased.

Dial tones

If the phone is being operated on a PBX in which an exchange line access number has to be dialled to access the exchange line, provisioning the dial

Sound

tone in the Identity area will enable different dial tones to be played for the user: depending on whether the user is still within the PBX or in the public network.

 Details about provisioning this function in the [Auerswald DokuWiki](#)


Configuration

 **Note:** The following restrictions apply when setting up:

- Only on the phone: Setting default ringtones, listening to ringtones, changing the volume.
- Only in the web interface: Importing and managing your own ringtones

Web interface:

- **Sound**


 Details about the settings are in [Sound](#)

- **Function keys**> Choose a key >**Function:Mute ringing**

 Details about the settings are in [Function keys](#)

Phone:


- **Settings > Sound**

 Details about the settings are in [Sound](#)


- **Settings > Function keys**> Choose a key >**Choose a function:Mute ringing**

 Details about the settings are in [Function keys](#)


Provisioning:

-  Details about provisioning this function in the Auerswald DokuWiki at Setting and Key

Video: Setting up call type-dependent ringtones

-  Link to video (only in German) <https://www.youtube.com/watch?v=rgZLN7u7jEU>

Video: Setting up own ringtones

-  Link to video (only in German) <https://www.youtube.com/watch?v=DtrNdzMUOBQ>

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.

 Further help under [Function keys](#)

Pickup and Call Pickup

Speed dial buttons defined with internal subscriber and group subscriber numbers enable pickup 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.


 Further help under [Pickup](#)

Name display

Speed dial

Stored names are called and displayed depending on the priority for name display (name sources) in

- Calls/conversations
- All call lists
- suggestions lists in dial preparation.

 Further help under [Identities](#)

Configuration

Web interface:

- **Function keys**> Choose a key >**Function:Speed dial**

 Details about the settings are in [Function keys](#)

Phone:

- **Settings** > **Function keys**> Choose a key >**Choose a function:Speed dial**

 Details about the settings are in [Function keys](#)


Provisioning:

 Further help in the [Auerswald DokuWiki](#)

Assigning a picture to a configured speed dial number

Requirements for use:


Speed dial

- 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 > choose stored file > Import.**

The icon for ▶  is replaced by the selected picture.

 Link to video (only in German) <https://www.youtube.com/watch?v=ICEt-9Za3MA>

Speed dial

 Further help in the [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

Also needed, in the case of manual configuration:


- Server name or address

 **Note:** The particular provider's CardDAV address is also required.

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. You can configure an account manually if the required provider is not in the list.

- **Choose provider**

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.

- **Manual setup**

Enter the data required to configure the account. To end configuration press **Sign in**.

 **Note:** If you configure an account manually, a new entry with this account is automatically added to the provider's list.


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.

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 to carry out an update:



- Manual Update
- Update via a USB storage medium (*.rom file in the root)

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

- Plug in/pull out the USB storage medium when the device has no power supplied to it
- Automatic update
- Provisioning

 Further help under [Using 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.
-  **Note:** An update can trigger a data migration. The phone cannot be used while this is happening. A message appears on the display to tell you a data migration is taking place.
-  **Important:** If the updater fails to boot the device (e.g. because there is a defective hard disk partition), the system informs you in an error

Update

message. Pass the content of this message on to the Service team if requested.

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:

 Details about provisioning this function in the [Auerswald DokuWiki](#)

Manual update process

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

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 time.

Web interface:


- **Update**

 Details about the settings are in [Update](#)


Phone:

- **Settings > Update**

Update

 Details about the settings are in [Update](#)

Provisioning:

 Details about provisioning this function in the [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.

If 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 roles and permissions

Roles can be assigned to ensure that only particular functions are made available for use by specific users. The configuration can be restricted to just a few functions.

Access is subdivided into two permission levels:


	Admin	User
Web interface	Password protection	Password protection
	Unrestricted use.	Restricted use. The following options are not possible: Reset the device to the factory settings. Add or delete users. Trace log recording if an error occurs. Restrict the configuration for displaying and removing menu options.
	Display all menus.	Displays menu options selected by the administrators. Exception: Permanent summary display of: Dashboard , Network .


	Admin	User
phone	Authorisation to add or delete users or administrators.	Only one's own user settings (username, password) can be edited.
	The phone does not distinguish between authorisation levels. The displays are the same for all users.	
	Displays menu options selected by the administrators. Exception: Permanent summary display of: About phone , Network.	


Configuration

Web interface:


- **User**

-  Details about the settings are in [Login](#)


-  **Note:** By default, one administrator is configured.

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

- **Access**

-  Details about the settings are in [Access](#)

Provisioning:

-  Details about provisioning this function in the [Auerswald DokuWiki](#)

Using provisioning

Provisioning involves automatically configuring one or more phones using a provisioning server URL. 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.

i Note: To ensure interference-free operation, some local functions are not available on the terminals after provisioning by a cloud PBX (e.g. COMuniq ONE). Data stored locally on the phone can be deleted or reset.

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.

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

- **Provisioning using the provisioning server URL**

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

Using provisioning

- **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.
- Network access with valid settings

 Further help under [Network](#)

- Valid time

 Further help under [Date and time](#)

Configuration

Web interface:

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


 Details about the settings are in [Using provisioning](#)

Phone:

- **Settings > Provisioning**

 Details about the settings are in [Using provisioning](#)

Provisioning:

 Details about provisioning this function in the [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


Using provisioning

You can select combinations of these options.

2. Select **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](#).

Voicemail App

The Voicemail app can be used with release version 2.4A and above (COMfortel D-400 devices and above).

The Voicemail app can be used to retrieve and organise fax and voicemail messages. The Voicemail app communicates directly with the ICT system. Users of a provisioning PBX do not need to enter any credentials. The app is self-provisioning. Before using the app, start it once again after provisioning is complete.



As soon as the voicemail app has been successfully put into operation, voicemails are automatically opened in the app when called up via the notification.

Requirement for use

- ICT system is integrated in the network and can be accessed over the Internet, by VPN if necessary.

Configuration

Phone:

-  Voicemail App
 -  Description of the operation under [Voicemail App](#)

Process

If the app has been provisioned, commissioning is concluded by accepting the terms and conditions of use. For manual commissioning without provisioning, proceed as follows:


1. Start the Voicemail app
2. Accept the terms and conditions
3. Create a new ICT system


Enter this information:

- **Name**(freely definable)
- **IP address**
- **Port**

You can test the connection to the ICT system, and correct the settings if necessary, before saving it.

4. Create new subscriber:
 - **Username**(Telephone number of the subscriber)
 - **Password**(as assigned by the ICT system).

 **Note:** A password can only be entered if the option for saving the credentials has been enabled.

 **Caution:** If a password has not been entered, the login process (including entering the password) must be performed again when a new subscriber is created.

5. If all the settings have been entered and are complete, simply select the ICT system and appropriate subscriber the next time you log in.

XML Minibrowser

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

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**> Choose a key >**Function:XML Minibrowser**

 Details about the settings are in [Function keys](#)

Phone:

- **Settings** > **Function keys**> Choose a key >**Choose a function:XML Minibrowser**

 Details about the settings are in [Function keys](#)

Provisioning:

- ➔ For more information, see the Auerswald DokuWiki at [Function](#) and [Key](#)

Process

- Press the key with the function **XML Minibrowser**.
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.

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

Pickup

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 and in operation on PBXs produced by Auerswald/FONtevo, and then described. If the phone is operated on other PBXs or VoIP providers, functionality may be partially or completely restricted.
- i** **Note:** There are alternatives to the functions below. These alternatives have not always been listed:

Establish a connection

Pick up the receiver

or

Loudspeaker 

or

Headset 

or

OK 

or



End a connection

To do this, hang up the receiver

Information about the section

or

Loudspeaker 

or

Headset 

or



reject a call



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

Hold 

or

OK 

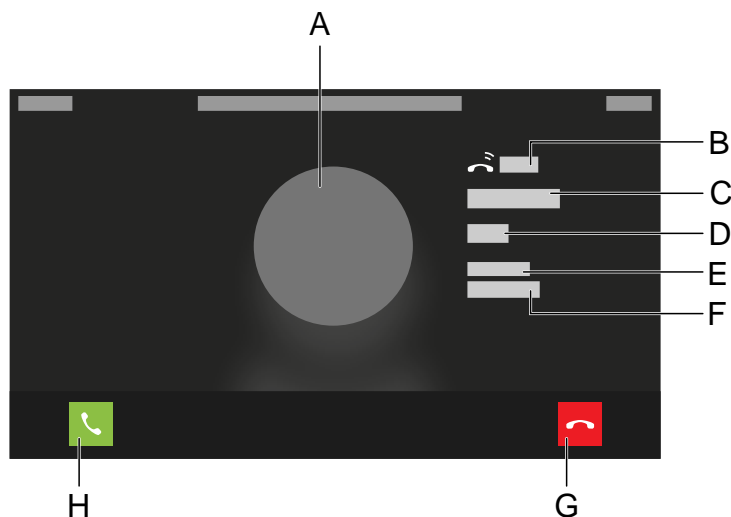
Incoming calls

➤ Further help under [Incoming calls](#)

! **Important:** For incoming calls, the display shows which destination was called (external number, group, forwarded destination). This display of the call routes is only available with the necessary activations.

➤ Consult the PBX manual for this.

Display overview: Internal calls



A Contact profile

B Call duration

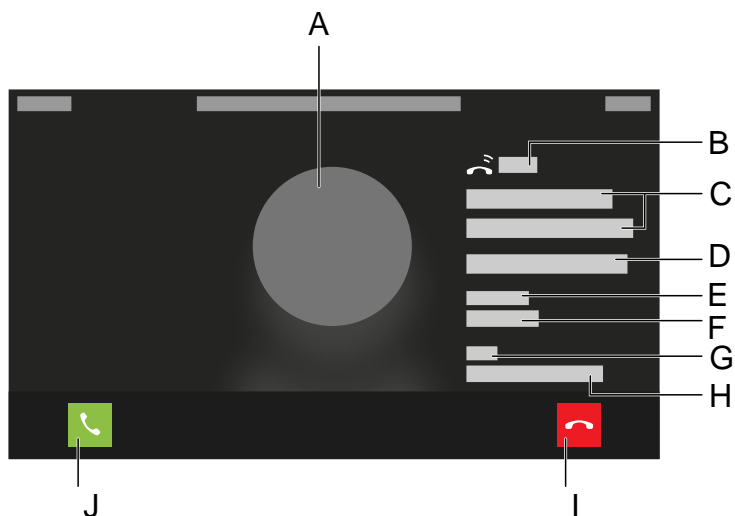
C Caller name

D Telephone number of the caller

Incoming calls

- E **Identity**
- F Own called identity
- G Rejecting a call
- H Accepting a call

Display overview: External calls

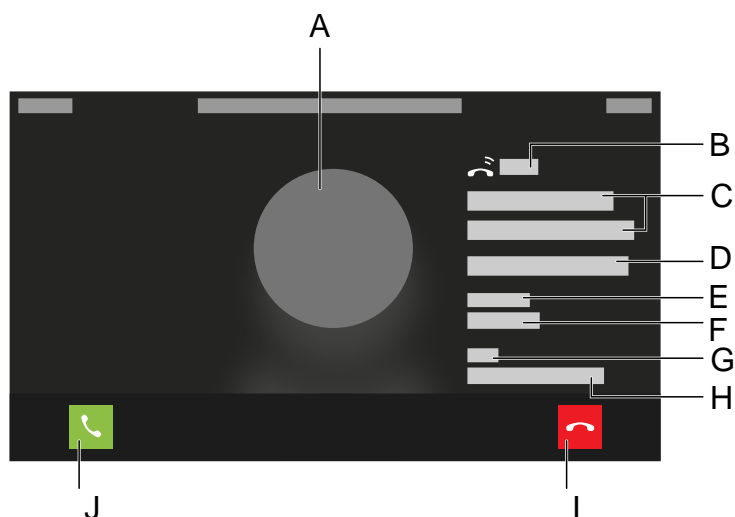


- A Contact profile
- B Call duration
- C Caller name
- D Telephone number of the caller
- E **Identity**
- F Own called identity
- G **Line**

Incoming calls

- H Name of the called exchange line number
If no name is assigned: Displays the number called.
- I Rejecting a call
- J Accepting a call

Display overview: Group calls



- A Contact profile
- B Call duration
- C Caller name
- D Telephone number of the caller
- E **Group**
- F Name of the called group
- G **Line**

Incoming calls

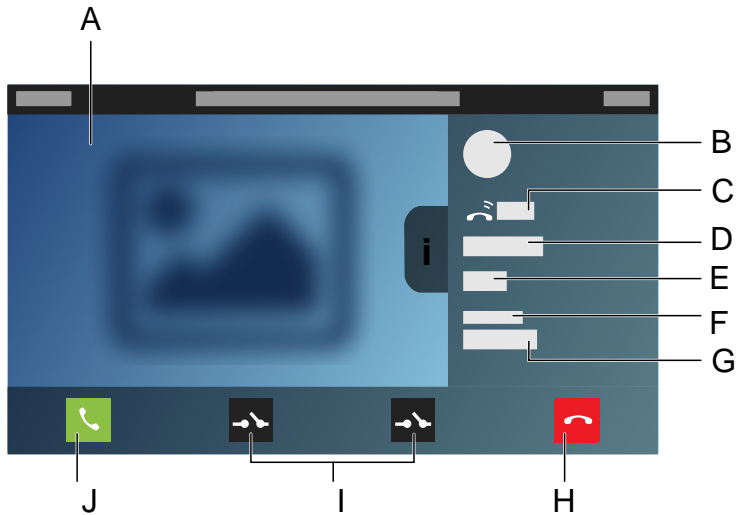
H Name of the called number

If no name is assigned: Displays the number called.

I Rejecting a call

J Accepting a call

Display overview: Door calls



A Displays the camera image that is transferred from the door terminal

B Contact profile

C Call duration

D Door name

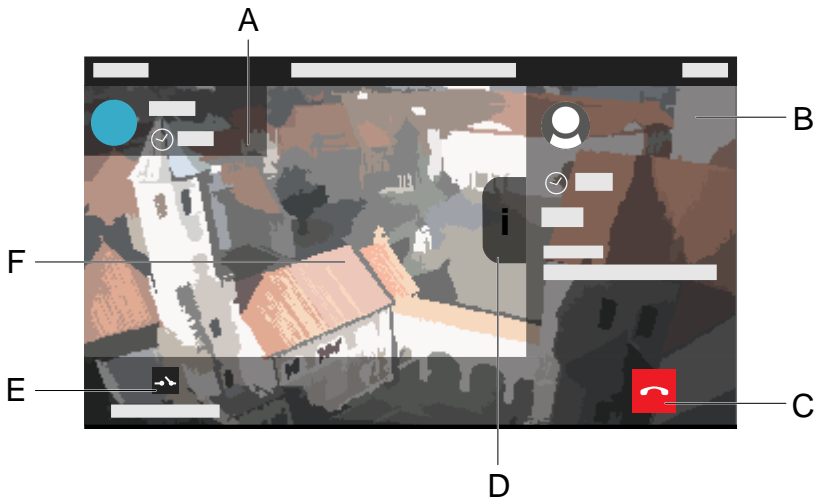
E Door phone number

F **Identity**

Incoming calls

- G Own called identity
- H Rejecting a call
- I For the relay function key, set up for the door call (e.g. Open the door, switch on light)
- J Accepting a call

Display overview: Call binding with displayed info and additional call partner

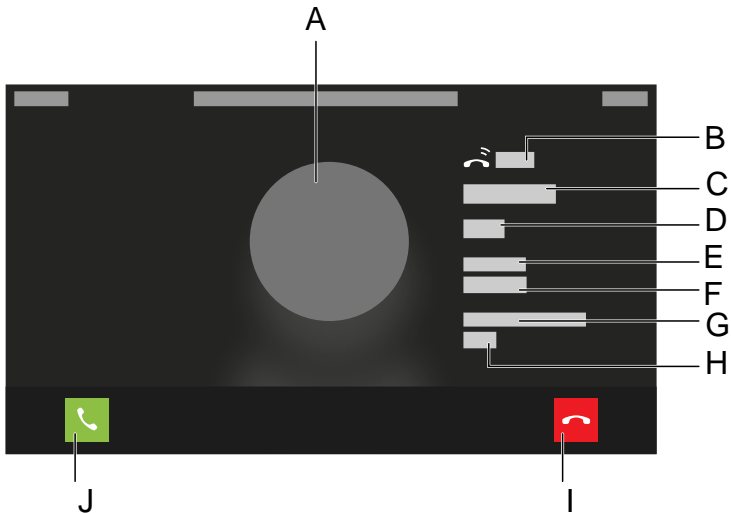


- A Additional calls (e.g. a call on hold)
- B Information about the current remote party
- C Ending a call
- D Flags for displaying or hiding information about the current remote party

Incoming calls

- 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 **Relays**
- 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.

Display overview: Forwarded calls



- A Contact profile
- B Call duration
- C Caller name
- D Telephone number of the caller
- E **Identity**

Incoming calls

- F Own called identity
- G **Redirected via**
- H Internal number
- I Rejecting a call
- J Accepting a call

Accepting a call

Pick up the receiver

or

OK 

or

Headset 

or

Loudspeaker 

or



Rejecting a call



Putting an accepted call on hold

Hold 


Reconnecting an on-hold call

Hold 

or

OK 

Call-Waiting Calls

 Further help under [Call waiting](#)

Accepting a call

Pick up the receiver

or

OK 

or

Headset 

or

Loudspeaker 

or



Rejecting a call





Forwarding



Transfer  > Enter destination number > Loudspeaker 

or


Call-Waiting Calls


Transfer  > Enter destination number > 

or

Transfer  > Select a saved contact > 

Dialled calls

 Further help under [Call history](#)

 Further help under [Contacts](#)


Dial number manually

Pick up the receiver > dial a phone number


or with dial preparation

Dial the phone number > Pick up the receiver


 **Note:** If you want to exit dial preparation without dial the subscriber number entered, press Back .

 **Important:** On a PBX, enter external numbers with a leading üexchange line access number for accessing the exchange line (usually "0").

 Consult the PBX manual for this.

 **Note:** When dialling through a standard SIP account, you can prevent automatic output of the area code by entering a leading "#" and thereby reach for example the VoIP provider's voice mailbox.


Dialling from within the call history (all calls)

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

Dialling from within the call history (missed calls)

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

or

Messages  > **You have missed calls.** Select from the displayed status bar > Select phone number/contact.


Dialling from within the redial list (outgoing)


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

or

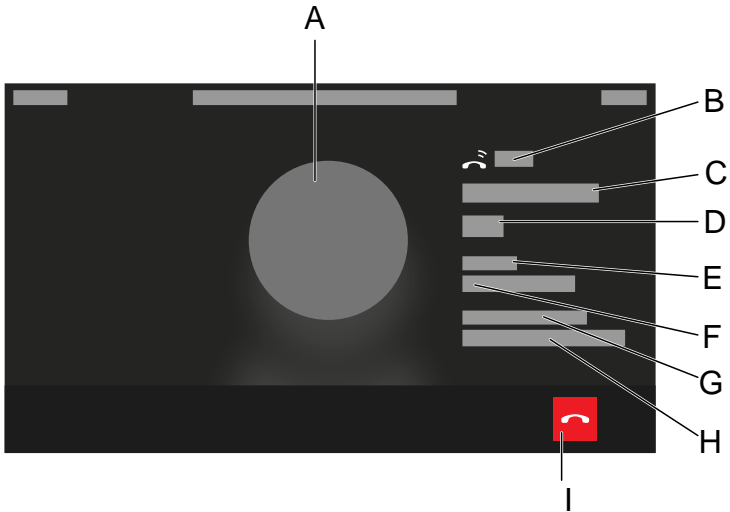
Redialling  > All > Select phone number/contact

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.

Display overview: Own call is forwarded

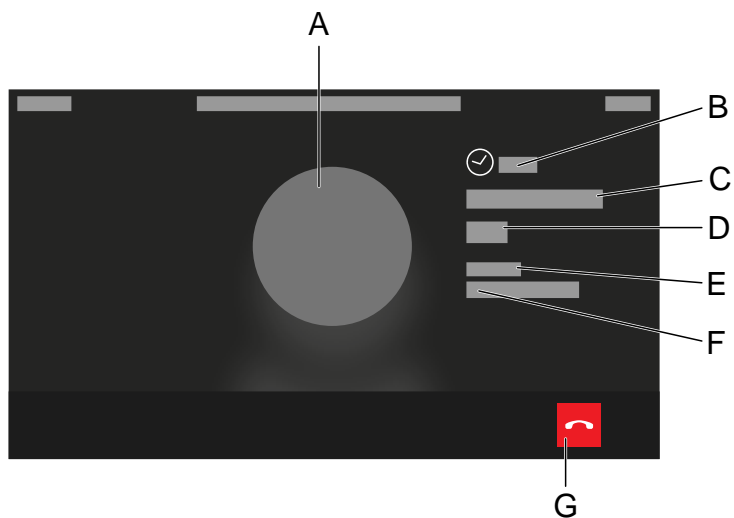


- A Contact profile
- B Call duration
- C Name of the identity to which the call is transmitted
- D Subscriber number of the identity to which the call is transmitted
- E **Identity**
- F Own identity
- G **Redirected via**
- H Redirecting identity with phone number display
- I Hang up

Call


➔ Further help under [Call and transfer](#)

Display overview: Active conversation




- 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 call on hold

Active call > Hold 

Reconnecting an on-hold call

To do this, press Hold again 

or

 tap it on the display

or

OK .

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.

i Note: This function is useful, for example, in the case of answering machines. The prerequisite is that call takeover is permitted in the PBX.

 Consult the PBX manual for this.

Muting a call

Microphone 

Switching off muting



To do this, press Microphone again 


Ending a call

To do this, hang up the receiver

or




 **Note:** If you want to end the existing call and then start a new one, tap  and then start dial the next number.

 **Note:** 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.

Sending a DTMF signal during a call

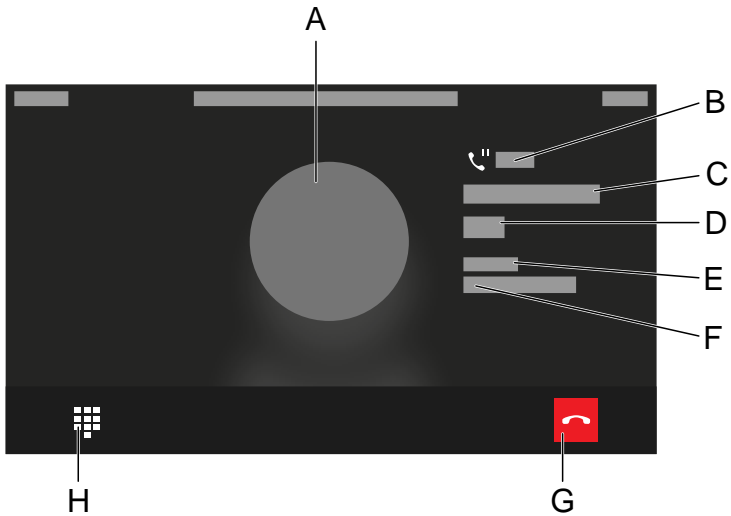
To do this, enter digits and special characters

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

Query Calls

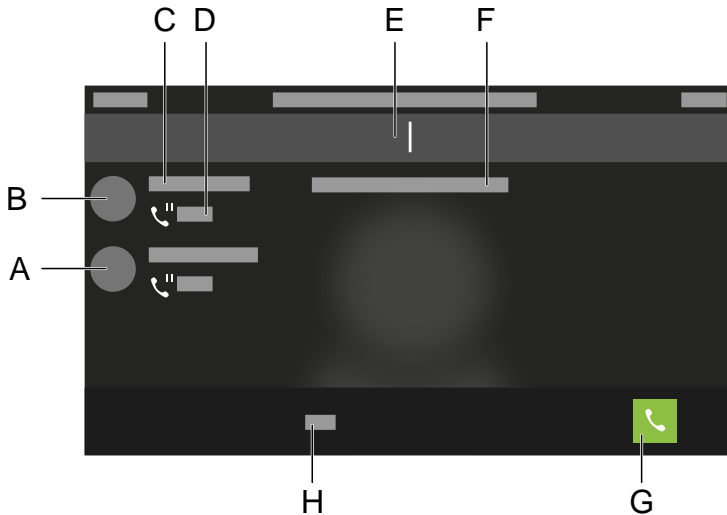
➔ Further help under [Call and transfer](#)

Display overview: 1 participant 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

Display overview: 2 participants on hold, dial preparation for call 3rd participant



- 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

Initiating a query call (during a call)

Hold  > enter destination number/contact (keypad) > OK 

or

Hold  >  > enter destination number/contact > OK 

When you connect a COMfortel D-XT20/D-XT20i:

Hold  > Speed dial key (key extension module)

or

press the speed dial button (key extension module)


Ending the query call and returning to the previous call

Hold 

or



Splitting a call (during a query call)


Select the call partner to whom you want to change > 

Ending one of the two calls

Either one of the call partners hangs up the receiver

or

Query Calls

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

Connecting the two call partners to each other

To do this, hang up the receiver

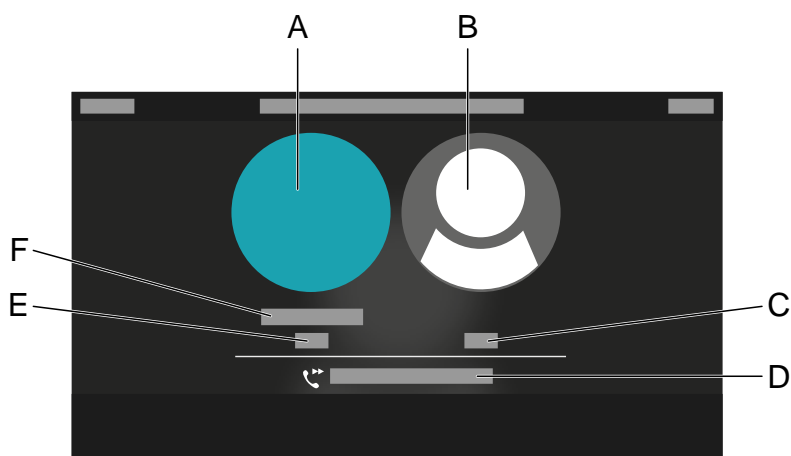
or



Transferring calls

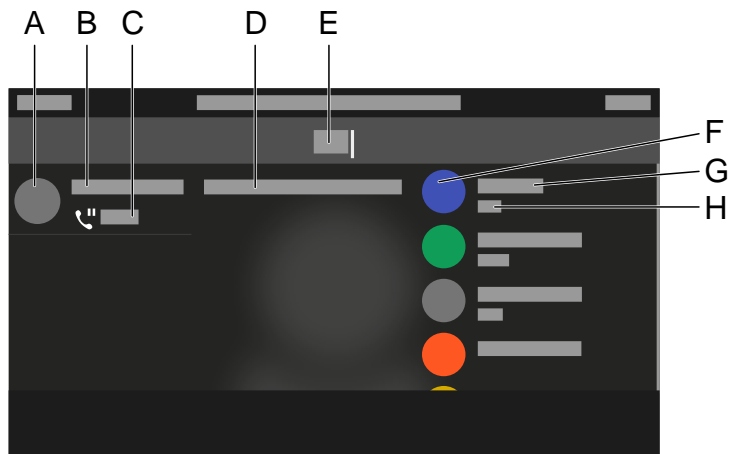
➔ Further help under [Call and transfer](#)

Display overview: Call forwarding using transfer



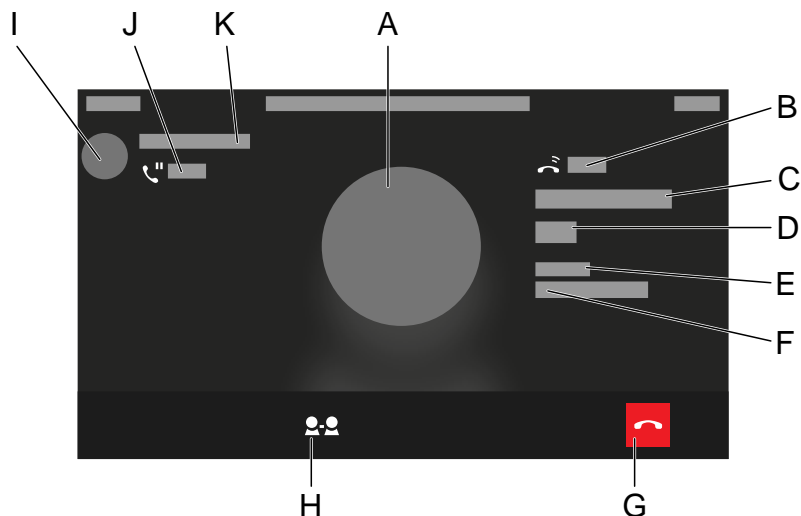
- A Contact profile of active participant
- B Transfer target contact profile
- C Transfer target subscriber number
- D Transfer status display
- E Subscriber number of active participant
- F Identity of active participant

Display overview: Selection of the destination for call forwarding



- 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

Display overview: 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

Transferring calls

K Identity of the call to be forwarded

Transfer the call with an announcement

Requirements:




- Initiated query call

Proceed as follows::



Transfer the call without announcement (blind transfer)

Proceed as follows:

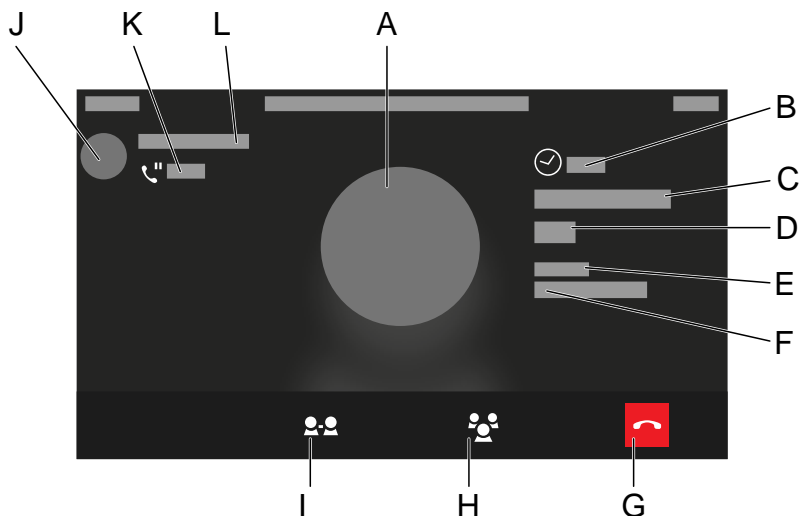
Hold  > enter destination number/contact > OK  > 

Conference call

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

➔ Further help under [Call and transfer](#)

Display overview: Preliminary stage of conference call

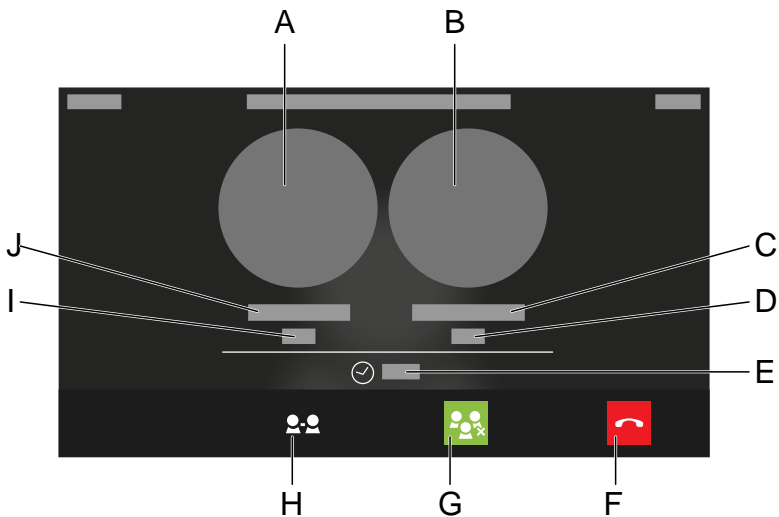


- A Contact profile
- B Duration of active conversation
- C Identity of the active conversation
- D Subscriber number of active conversation
- E **Identity**
- F Own identity

Conference call

- 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

Display overview: Active conference



- 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

Conference call

- F Own identity
- G Disconnect conference call
- H Connect partner
- I Subscriber number, conference call participant 1
- J Identity, conference call participant 2


Initiating a call

Scenario:

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



Splitting a call

Select subscriber > 

 **Note:** Press again  to restore the conference.

Connecting the other two conference call partners to each other




Splitting a conference call



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 .


Holding a conference call and initiating an additional call

Select Conference > Hold  >  > OK 

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

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

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.

Ending a conference call completely

To do this, hang up the receiver

or



Hands-Free Calling

 Further help under [Call and transfer](#)

Accepting a call in hands-free calling mode

Incoming call 

or

Incoming call > Loudspeaker 

or

Incoming call > OK 

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 activated.

 Further help under [Automatic start of call](#)

Ending a call in hands-free calling mode



Hands-Free Calling

or

Loudspeaker 

Loudspeaker listening

 Further help under [Call and transfer](#)

Switching on during a call through the receiver

Loudspeaker 

Switching off and returning to a normal call

Loudspeaker 

Ending a call in loudspeaker listening mode

To do this, hang up the receiver

or



Headset Call

 Further help under [Call and transfer](#)

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

Headset 

or

EHS

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

Headset 

or



or

OK 

or

EHS

Transferring an active call to the headset

Headset 

Headset Call

or

EHS

Ending an active call in the headset

Headset 


or



or

EHS

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

Pick up the receiver > press Headset 

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

To do this, hang up the receiver

Pickup

 Further help under [Pickup](#)

Procedure with speed dial configured

The LED on the button with the speed dial function assigned to it flashes red.

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

Proceed as follows without speed dial configured

Enter the pickup code and phone number of the internal telephone > pick up receiver

or


 OK

or



Using the pickup list

All the calls (incoming or already connected) that can be selected and taken directly are displayed in the pickup list.

 **Note:** The pickup list only displays calls if speed dialling keys have been set up.

Settings for the function key: **Speed dial:**

Pickup

- disabled:**Do not show in pickup list**
- Optional:**Pickup of connected calls**

1st call in the pickup list: Pick up the receiver to take over the call directly.

> 1st call in the pickup list: Pick up the receiver to close the pickup list and open the dialler.

Using the Web Interface

[Basic Knowledge](#)

[Dashboard](#)

[Device settings](#)

[Display and LED](#)

[Function keys](#)

[Scripts](#)

[Using provisioning](#)

[Identities](#)

[Cameras](#)

[Update](#)

[Network](#)

[LDAP/Google](#)

[Telephony](#)

[Sound](#)

[Date and time](#)

[Login](#)

[Backup and restore](#)

[Access](#)

Basic Knowledge

[Opening the web interface](#)

[Operating Instructions](#)

Opening the web interface

You must log in with the administrator authorisation level the first time you log in or after the device has been reset to its factory settings. When you log in again in the future, the authorisations are linked to the credentials (user/administrator).

Requirement:

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

Proceed as follows:


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

The login window opens.

2. Enter your Username and Password access data.

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

- **Username: admin**
- **Password: admin**

 **Caution:** Passwords that are unchanged from the factory settings are a security risk. Change the password in the dialogue without delay.

3. Click on **Login**.

Opening the web interface

You are now logged into the web interface and can make settings.

Operating Instructions

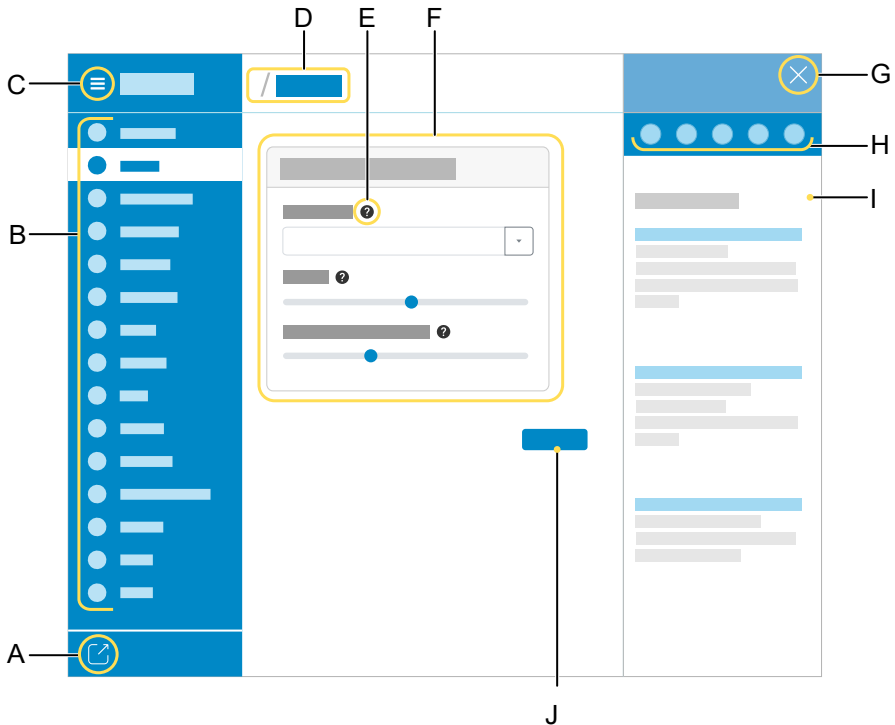
[Overview](#)

[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

Overview

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 Hides the integrated help

H Navigation elements within the integrated help, from left:

- Menu
- Search
- Back
- Forward
- Home

I Display of the contents of the integrated help

J 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

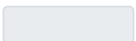
{ } curly brackets



Active text input field.



Text input field that is already filled.



Text input field that is locked for processing.

Element

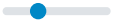
Function



Form field for incrementally increasing/reducing a value.



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.




The intention to delete an item can be confirmed or revoked.

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 not legible because of scaling/zooming of the browser, you can restore the original view (e.g. Mozilla Firefox under **View > Zoom > Normal** or Ctrl + 0).

Dashboard

Dashboard

[Status information](#)

[Service and documents](#)

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.

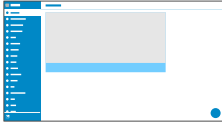
Network chip

Model of the network chip integrated in the phone.

VPN connection

Displays the status of the VPN connection: **Connected.** / **Not Connected.**

Service and documents



Clipboard

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

 Further help under [Service functions, problem solving](#)

Show current system log

Downloads the log file. This can then be forwarded to the specialised departments (Service, Development) for troubleshooting. Depending on the settings, logging takes place with or without debug information.

 Further help under [Service functions, problem solving](#)

Service data

If the phone malfunctions, a package of all service-relevant data can be saved. This can then be forwarded to the specialised departments (Service, Development) for troubleshooting.

 Further help under [Service functions, problem solving](#)

Start Trace

If the phone malfunctions, a network log can be recorded. This can then be forwarded to the specialised departments (Service, Development) for troubleshooting.

 Further help under [Service functions, problem solving](#)

Screenshot

Creates a screenshot of the phone's display and saves it to the hard drive as *.png.

 Further help under [Service functions, problem solving](#)

Legal

Here, you can display the following license information:

- **End User License Agreement for Software (EULA)**
- **Data protection**
- **Open source licenses**
- **Licenses system webview**

Online help

Displays the online help in your browser.

Device settings

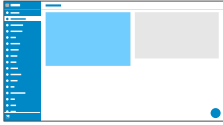
Device settings

[Device](#)

[Edit image](#)

[Language and location](#)

Device



Device name

The name you assign to the device.

 Further help under [Display and LED](#)

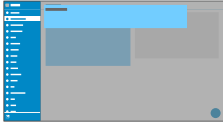
Edit image

Opens the image editor for the device image.

 Details about the settings are in [Edit image](#)

 Further help under [Display and LED](#)

Edit image



Neues Bild auswählen

Opens the file selection. A graphic file (*.jpg, *.png) saved on a disk can be selected and imported. You can adjust the image section before saving. When selecting graphics and adjusting the image section, please note the usage information.

 Further help under [Display and LED](#)

Close

Closes the image editing dialogue. Data that has already been created will be discarded.

 Further help under [Display and LED](#)

Delete

Deletes the set image when saving the page. The standard image for the selected function is displayed.

 Further help under [Display and LED](#)

Download

Saves the selected image section in a size of 64 x 64 px locally as `icon.png`.

Set

Closes the image editing dialogue. The selected image section is displayed and saved when the page is saved.

 Further help under [Display and LED](#)

Language and location



Language web interface

Changes the language used on 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](#)

Display and LED

Basic Settings

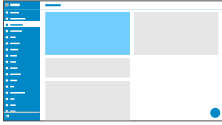
Key extension modules

Wallpaper

Edit image

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 [Display and LED](#)

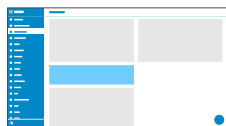
Brightness

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](#)

Key extension modules

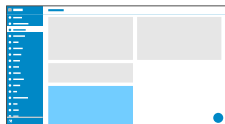


Show icons on D-XT20(i)

Switches on the display of icons and images on all connected key extension modules.

 Further help under [Display and LED](#)

Wallpaper



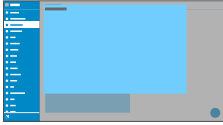
Edit image

Opens the image editor for the background of the display.

 Details about the settings are in [Edit image](#)

 Further help under [Display and LED](#)

Edit image



Neues Bild auswählen

Opens the file selection. A graphic file (*.jpg, *.png) saved on a disk can be selected and imported. You can adjust the image section before saving. When selecting graphics and adjusting the image section, please note the usage information.

 Further help under [Display and LED](#)

Close

Closes the image editing dialogue. Data that has already been created will be discarded.

 Further help under [Display and LED](#)

Delete

Deletes the set image when saving the page. The standard image for the selected function is displayed.

 Further help under [Display and LED](#)

Edit image

Download

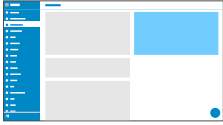
Saves the selected image section locally as `icon.jpeg`.

Set

Closes the image editing dialogue. The selected image section is displayed and saved when the page is saved.

 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 notifications

- **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

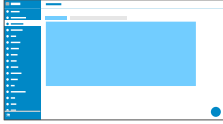
[Overview](#)

[Edit function keys](#)

[Functions and associated parameters](#)

[Edit Icon](#)

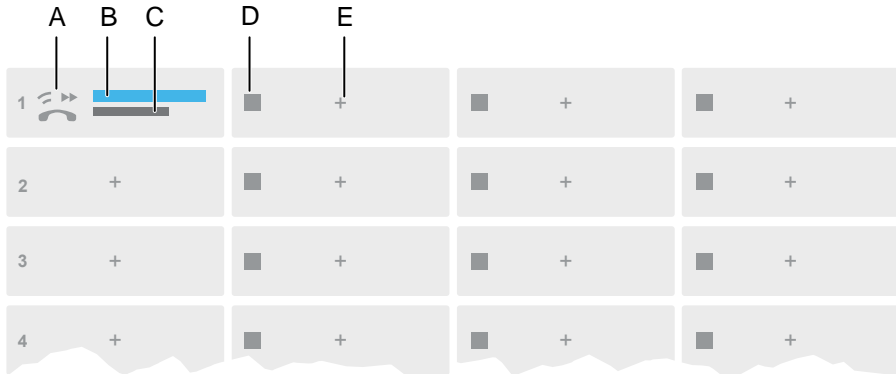
Overview



Function keys

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

Phone user interface



- A Function keys icon
- B Enter text such as under **Edit function keys > Key label**
- C Function selected as under **Edit function keys > Function**
- D Seq. Number

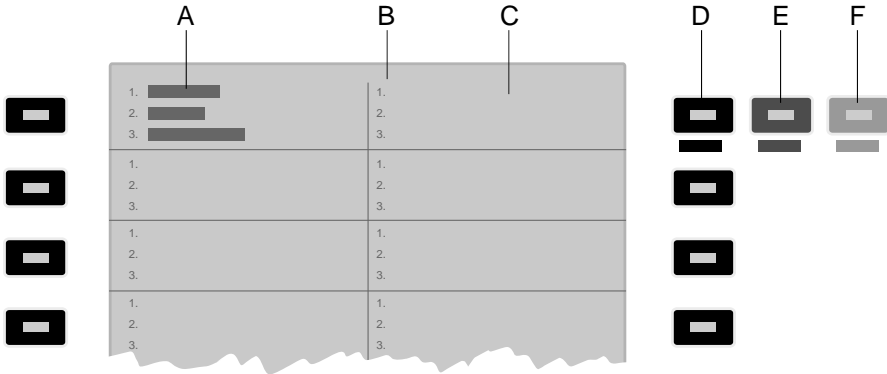
E Opens the dialogue box **Edit function keys**

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

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.

Phone user interface key 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)

Overview


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

E **Level 2** (opens when you pass over it with the mouse)

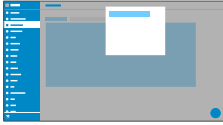
Click on the selected key to open the Edit function keys window

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 yellow. 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.

➤ Details about the settings are in [Functions and associated parameters](#)

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

➤ Further help under [Function templates](#)

✔ 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.

Functions and associated parameters

Speed dial

Identity

Activate config

Anonymous call

Automatic configuration switching

Bluetooth

Browser

Call forwarding immediately

Call forwarding on busy

Call forwarding on no reply

Call waiting

Call forwarding ext. calls: Immediately

Call forwarding ext. calls: On busy

Call forwarding ext. calls: On no reply

Cleaning

Default identity

Do not disturb

DTMF-Relay

DTMF call

Group

Group (incoming)

Group (outgoing)

Mute ringing

Park position

Pickup list

Pickups

Relays

Silent Alert


Functions and associated parameters

SIP message

VPN

XML Minibrowser

Speed dial


 Further help under [Speed dial](#)

Number/URI

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


Identity

Identity for which this function is set up.

 Further help under [Identities](#)


Signal BLF

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.

Speed dial

 **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 [Pickup](#)

InterCom

Enables the InterCom function. The connection with the destination number is established directly. No ringing or active call acceptance.


 Further help under [InterCom](#)

Signalise missed call

If this function is enabled, missed calls associated with the speed dial number are signalled with flashing green LEDs.

Pickup-choice on key-press

If this function is switched on, a list of all the calls relevant for the function key, that can be taken via pickup, is displayed.

 **Note:** If this function is switched on, a call cannot be taken by pressing a key. Instead, a list of all the calls that can be taken via pickup is displayed, even if the list only contains one call.

 Further help under [Pickup](#)

Do not show in pickup list

If this function is switched on, calls that can be taken by pickup are not forwarded to the global pickup list.

 Further help under [Pickup](#)

Pickup of connected calls

If this function is switched on, calls that have already been connected can be picked up. This option is useful, for example, if an answering machine or mailbox number has been assigned to the speed dialling key. The calls are included in the global pickup list.

 Further help under [Pickup](#)

Signal presence


If this function is switched on, the following states are transmitted (if they are supported by the PBX):

- Successful registration of the monitored phone number on the PBX
- Do not disturb
- Call forwarding

Default: disabled.

Identity

Identity

 Further help under [Identities](#)

Identity


Identity used to trigger subsequent calls.

Activate config

 Further help under [Function templates](#)

Identity

Identity for which this function is set up.

 Further help under [Identities](#)

Configuration id

The PBX assigns the configuration ID automatically.

Anonymous call

Anonymous call

 Further help under [Anonymous call](#)


No parameters necessary.

Automatic configuration switching

 Further help under [Function templates](#)

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).

Bluetooth

Bluetooth

 Further help under [Bluetooth](#)

No parameters necessary.

Browser


Browser

 Further help under [Apps](#)

Number/URI


Web server address


Call forwarding immediately

 Further help under [Call forwarding](#)

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


Call forwarding on busy

 Further help under [Call forwarding](#)

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


Call forwarding on no reply


 Further help under [Call forwarding](#)

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

Call waiting

Call waiting

 Further help under [Call waiting](#)

No parameters necessary.


Call forwarding ext. calls: Immediately

Call forwarding ext. calls: Immediately

 Further help under [Function templates](#)

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

Call forwarding ext. calls: On busy

 Further help under [Function templates](#)

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


Call forwarding ext. calls: On no reply

Call forwarding ext. calls: On no reply

 Further help under [Function templates](#)

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


Cleaning

Cleaning

 Further help under [Cleaning](#)

No parameters necessary.

Default identity


 Further help under [Identities](#)

Adapt speed dial keys

When switching the identity, all speed dialling keys are adapted to the current identity.


Do not disturb

Do not disturb


 Further help under [Do not disturb](#)

Identity

Identity for which this function is set up.

 Further help under [Identities](#)

DTMF-Relay

 Further help under [Function templates](#)

DTMF sequence

Numbers needed to perform the required function.

DTMF call


 Further help under [DTMF](#)

Number/URI

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

Identity

Identity for which this function is set up.

 Further help under [Identities](#)

DTMF sequence

Numbers needed to perform the required function.

Hangup when done

If this function is activated, the connection is disconnected immediately after the DTMF sequence is transmitted.


Group

Group

 Further help under [Function templates](#)

Identity

Identity for which this function is set up.

 Further help under [Identities](#)

Group

Group telephone number


Group (incoming)

Group (incoming)

 Further help under [Function templates](#)

Identity

Identity for which this function is set up.

 Further help under [Identities](#)

Group

Group telephone number


Group (outgoing)

Group (outgoing)

 Further help under [Function templates](#)

Identity

Identity for which this function is set up.

 Further help under [Identities](#)

Group

Group telephone number


Mute ringing

Mute ringing

 Further help under [Sound](#)


No parameters necessary.

Park position

 Further help under [Park position](#)


Number/URI

Phone number of the park position.

 **Note:** The phone number/URI to be assigned consists of the internal base phone number assigned in the PBX for the open query call and the park position (0 to 9).

Identity

Identity for which this function is set up.

 Further help under [Identities](#)

Pickup list

Pickup list

 Further help under [Pickup](#)

No parameters necessary.

Pickups

Pickups

 Further help under [Pickup](#)


No parameters necessary.

Relays

 Further help under [Function templates](#)


Identity

Identity for which this function is set up.


 Further help under [Identities](#)

ID

Relay ID number according to PBX.


 **Note:** The Relay function key is for relays with light, door opener or calculator operating mode. This function key is not suitable for manual relays. For additional information, refer to the Advanced Information about the PBX.

Silent Alert

 Further help under [Silent Alert](#)

URL

Required for forwarding the alarm message.

 **Caution:** The function can only be executed if the appropriate URL has been entered.

Delay

Countdown counter. An action is triggered after the countdown reaches zero.

Number/URI


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

Identity

Identity for which this function is set up.

 Further help under [Identities](#)

SIP message


 Further help under [SIP message](#)

Number/URI

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

Identity

Identity for which this function is set up.

 Further help under [Identities](#)

Message

This is where you enter the text for sending an SIP message.

Delay

Countdown counter. An action is triggered after the countdown reaches zero.

VPN

VPN

 Further help under [Network](#)

No parameters necessary.

XML Minibrowser

 Further help under [XML Minibrowser](#)


Number/URI

Web server address

Edit Icon

Neues Bild auswählen

Opens the file selection. A graphic file (*.jpg, *.png) saved on a disk can be selected and imported. You can adjust the image section before saving. When selecting graphics and adjusting the image section, please note the usage information.

 Further help under [Function keys](#)

Close

Closes the image editing dialogue. Data that has already been created will be discarded.

 Further help under [Function keys](#)

Delete

Deletes the set image when saving the page. The standard image for the selected function is displayed.


 Further help under [Function keys](#)

Download

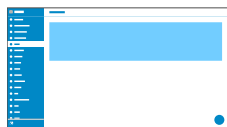
Saves the selected image section in a size of 64 x 64 px locally as `icon.png`.

Set

Closes the image editing dialogue. The selected image section is displayed and saved when the page is saved.

 Further help under [Function keys](#)

Scripts



Scripts with existing parameters (e.g. send pings) are displayed here and can be edited.

 Further help in the [Auerswald DokuWiki](#)

Using provisioning

Using provisioning

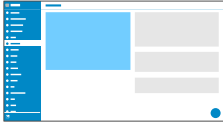
[Basic Settings](#)

[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 [Using 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 [Using provisioning](#)

Redirect Server

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

➔ Further help under [Using provisioning](#)

Provisioning from PBX search

Automatic provisioning of the phone is performed via the PBX.

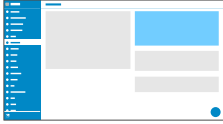
 Further help under [Using provisioning](#)

Provisioning server URL

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

 Further help under [Using provisioning](#)

Schedule




Weekdays

The weekdays on which automatic provisioning is carried out.

 Further help under [Using provisioning](#)

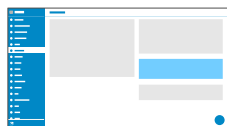
Time

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 [Using provisioning](#)

SIP provisioning

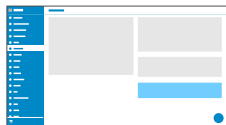


SIP provisioning

Starts remote configuration using SIP messages.

 Further help under [Using 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

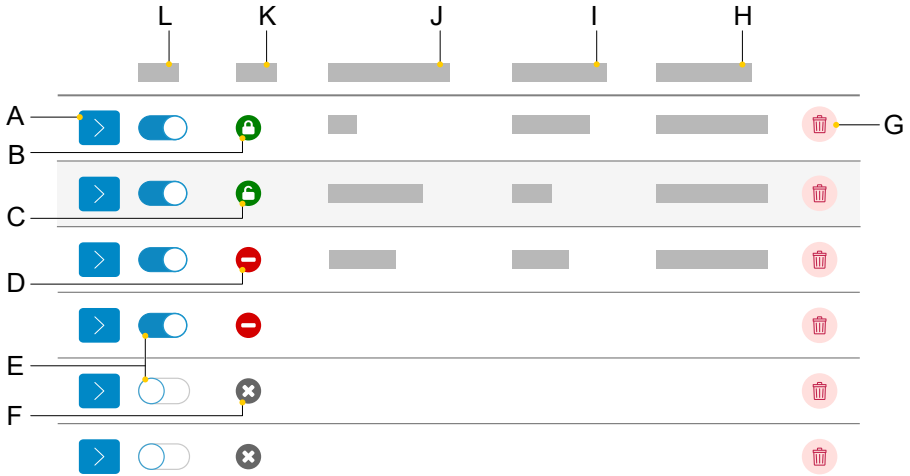
Codecs

Registrar

NAT

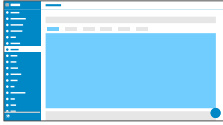
Outbound-Proxy

Managing Identities




- A Displays the settings for an identity
- B Identity correctly configured, registered and encrypted
- C Identity correctly configured, registered and unencrypted
- D Identity incorrectly configured, unregistered and unencrypted
- E Activate/deactivate an identity
- F Identity deactivated
- G Resets the selected identity
- H **SIP Registrar**
- I **Display name**
- J **SIP Username**
- K **Status**
- L **Active**

Basic Settings




Active

Press this to switch the selected identity on.

 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 Display name and in the phone below the status bar.

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

 Further help under [Identities](#)

Authentication name


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.

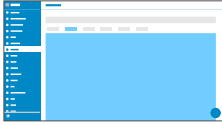
 Further help under [Identities](#)

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](#)

Options for experts



Fallback for

Determines whether the identity has a fallback identity or is itself a fallback identity.

No fallback

There is no fallback provided for the identity.

The identity is not a fallback identity.


Identity

The identity is fallback identity for the selected identity.

Display only: **Identity has a fallback**

For the identity, the displayed identity is intended as a fallback.

The identity itself can no longer be selected as a fallback identity.

 Further help under [Identities](#)

CLIR type

(Number 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.

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 is "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 [Identities](#)


Pickup code


This is required to perform a call pickup. Enter the character string stored on the PBX/at the provider, e.g. **##06** for Auerswald PBXs.

 Further help under [Identities](#)

Music on hold

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

 **Note:** If "Music On Hold" has already been enabled on the PBX/at the provider, this function can remain switched off.

 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](#)

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

Options for experts

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 [Identities](#)

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 [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](#)


Certificate


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

 Further help under [Identities](#)

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 [Identities](#)

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 [Identities](#)

Protocol type


UDP


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

 **Note:** If very large data packets are present, TCP is used instead of UDP. The maximum size of a data packet can vary according to the network. (RFC 3261 > TCP)

TCP

(Transmission Control Protocol) sends data packets individually, segmented from a certain size and until receipt has been confirmed.


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

 Further help under [Identities](#)

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 [Identities](#)

Retry subscriptions

Sets the interval at which attempts are made to configure a subscription on the PBX/provider, if an error occurs.

- 1x


The device sends exactly one subscription to the PBX/provider. No other subscriptions are sent.

- **Fixed interval**

Attempts to subscribe on the PBX/provider are made at the specified interval.

- **Redouble interval**

The set number of seconds doubles after each attempt to subscribe on the PBX/provider.


 Further help under [Identities](#)

Retry subscriptions: Interval in seconds

Sets the time gap between two subscription attempts.

Minimum: 10 sec

Default: 180 sec

 Further help under [Identities](#)

Retry register

Sets the interval at which attempts are made to register on the PBX/provider, if an error occurs.

- **1x**

The device makes exactly one attempt to register on the PBX/provider. There are no more registration attempts.


- **Fixed interval**

Options for experts

Attempts to register on the PBX/provider are made at the specified interval.

- **Redouble interval**

The set number of seconds doubles after each attempt to register on the PBX/provider.


 Further help under [Identities](#)

Retry register: Interval in seconds

Sets the time gap between two subscription attempts.

Minimum: 1 sec

Default: 10 sec

 Further help under [Identities](#)

Ringer Tone

Assigns a ringtone to the identity.

 Further help under [Sound](#)

Name sources

Active


The sequence in which the name sources are displayed in the list sets the sequence in which they are applied. The first source that contains a name is used for the display.

Inactive

You can select inactive name sources and drag and drop them into the Active list to arrange them, or remove them from the list.

Reset to default

Returns the list to its default state.

 Further help under [Identities](#)

DTMF method

Specifies the DTMF method used to transmit signals.

- **RTP event**

Transmission of event packets in the RTP stream

- **Inband**

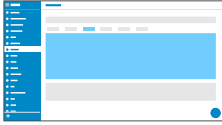
Transmission of coded sound signals, directly in the RTP stream

- **SIP info**

Transmission of SIP info messages

 Further help under [DTMF](#)

Codecs



Codecs

Active

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

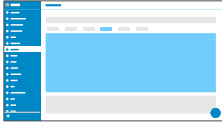
To achieve the best possible balance between bandwidth and speech quality, we recommend you do not change the sequence of the codecs.

Inactive

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


 Further help under [Identities](#)

Registrar




SIP domain


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


 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.)

5 ... 60 minutes

Registrar


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](#)


Early re-register (sec)

Shortens a re-registration by the specified number of seconds. Early re-registration prevents the registration from expiring prematurely.

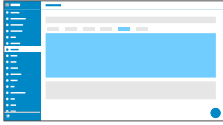
 Further help under [Identities](#)

Refresh register at 1/2

Turns on re-registration after half of the negotiated maximum registration period.

 Further help under [Identities](#)

NAT



SIP NAT traversal

Requirements:

- Configured DNS server
- If the option "active" is selected: **Registrar** enabled for the phone


Active

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 SIP request also contains an "rport" part in which the IP addresses used here (local, public) are transported. 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

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 unilateral call connections, a STUN server should be used.


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](#)

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, it is recommended to raise the value (e.g. to 180).


NAT

 Further help under [Identities](#)

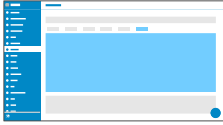
Use ICE

Enable the best possible transmission route to be found between the phone and PBX/provider.

 **Note:** ICE must only be activated if the other end supports ICE.

 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 [Identities](#)

URL


Server address for the outbound proxy.


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

 Further help under [Identities](#)

Port


Port for the outbound proxy.

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

 Further help under [Identities](#)


Alternative URL

Alternative server address for the outbound proxy.

 Further help under [Identities](#)

Alternative port

Alternative port for the outbound proxy.

 Further help under [Identities](#)

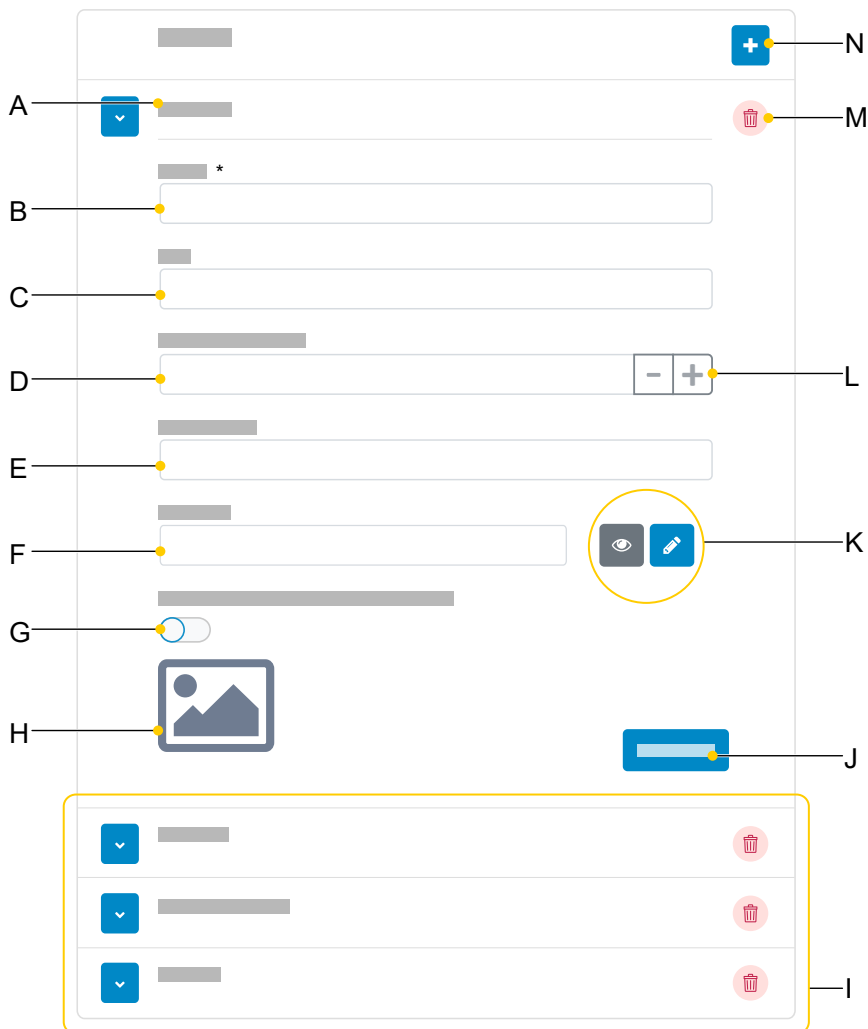
Cameras

Cameras

Camera management

Settings

Camera management



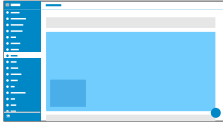
A Unique name, as assigned under **Name**

B **Name**, entry required

Camera management


- 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 [Cameras](#)

Name

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

 Further help under [Cameras](#)


URL


Address from which the camera images are fetched.

 Further help under [Cameras](#)

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 [Cameras](#)

Username

Enter the user name, if necessary.

 Further help under [Cameras](#)


Password

Enter the password, if necessary.

 Further help under [Cameras](#)

Use for incoming calls only

The camera image display is only activated for incoming calls.

 Further help under [Cameras](#)

Update

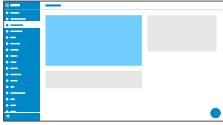
Update

[Basic Settings](#)

[Restart and factory reset](#)

[Schedule](#)

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 default settings: `https://update.auerswald.de`

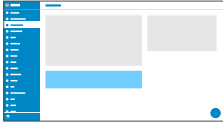
 Further help under [Update](#)

Start update

Starts installation of a new firmware version.

 Further help under [Update](#)

Restart and factory reset



Restart phone

Restarts the telephone.

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

 Further help under [Update](#)

Reset to default

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

 Further help under [Service functions, problem solving](#)

Schedule



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

Topology


Current Settings



Lists all the network settings made on the phone.

DNS

IP address of the DNS server used here.

 Further help under [Network](#)

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

Current Settings

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).


 Further help under [Network](#)

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 [Network](#)

Subnet mask

Example: 225.255.255.0

 Further help under [Network](#)

Gateway

Example: 192.168.178.1

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 [Network](#)

DNS 1

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

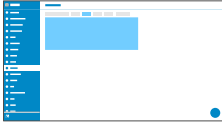
 Further help under [Network](#)

DNS 2

Optional

 Further help under [Network](#)

IPv6




IPv6 mode

Auto

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


Disabled

Disables IPv6 mode. IPv4 over DHCP is used.

 Further help under [Network](#)

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 [Network](#)

DNS 1

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

IPv6

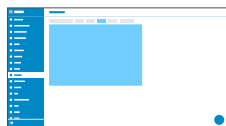
 Further help under [Network](#)

DNS 2

Optional

 Further help under [Network](#)

VLAN



Phone VLAN


Switches on VLAN for the phone.

 Further help under [Network](#)

Phone VLAN ID


Enter the phone's VLAN ID: 1 ... 4094

The associated data packets are tagged with this ID.

 Further help under [Network](#)

Phone VLAN priority


0 (lowest priority) to 7 (highest priority)

 Further help under [Network](#)

PC port VLAN

Switches on VLAN for the PC port.


VLAN

 Further help under [Network](#)

PC port VLAN ID


Enter the PC port's VLAN ID: 1 ... 4094

The associated data packets are tagged with this ID.

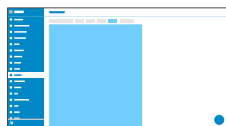
 Further help under [Network](#)

PC port VLAN priority

0 (lowest priority) to 7 (highest priority)


 Further help under [Network](#)

VPN



VPN

Switches on VPN for the phone.

 Further help under [Network](#)

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

Mixed form **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 [Network](#)

Name


Freely selectable name for the VPN connection.

 Further help under [Network](#)

Server

Server address for the VPN connection.


Your network administrator will give you the server address.

 Further help under [Network](#)

User name

User name for the VPN connection.


Your network administrator will give you your user name.

 Further help under [Network](#)

Password

Password for the VPN connection.

Your network administrator will give you the password.

 Further help under [Network](#)

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 [Network](#)

Search domain

Search domain addresses for the VPN connection.


Your network administrator will give you the search domain addresses.

 Further help under [Network](#)


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 [Network](#)

IPsecIdentifier

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

 Further help under [Network](#)

preinstalled IPsecSecret

Authentication key.

 Further help under [Network](#)

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 [Network](#)


IPsecUserPrivateKey

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

The private key must fulfil these criteria:

VPN

- X.509 standard
- .pem format


 Further help under [Network](#)

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 [Network](#)

IPsecServerCert

Server-side certificate.

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


- X.509 standard
- .pem format

 Further help under [Network](#)

OpenVPN Config

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

VPN

 Further help under [Network](#)

Topology

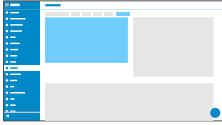
Topology

[Basic Settings](#)

[Jitter buffer](#)

[STUN server](#)

Basic Settings




Check hostname

Checks whether the certificate belongs to the domain/IP.

 Further help under [Network](#)


FrameSize


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

 Further help under [Network](#)

RTP off when silent


Ends the sending of RTP packets if no active conversation is taking place.

 **Note:** If this function is switched on, parts of the call can seem like breaks in the connection because background noises are cut off sharply.

 Further help under [Network](#)


Compact SIP headers

If the provider requires it: Uses compact SIP headers to reduce packet sizes.

 Further help under [Network](#)

No TCP for UDP

If the provider requires it: Prevents switching to TCP for large packets.

 **Note:** If this function is switched off, large packets are sent via TCP instead of UDP in accordance with RFC.

 Further help under [Network](#)

LLDP

If this function is enabled, LLDP packages are sent regularly to the directly connected LLDP-enabled switch.

 Further help under [Network](#)

LLDP: Interval in seconds

LLDP package sending frequency

30 to 3600 sec

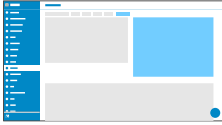
Minimum: 30 sec

Basic Settings

Default: 30 sec

 Further help under [Network](#)

Jitter buffer



Specifies how many RTP packets can be cached to buffer or compensate for disruptions.

Initial value

Initial prefetch delay value (msec).

Note: The value must lie between Min. prefetch and Max. prefetch. If the Initial value = 0, prefetch is deactivated.

[Further help under Network](#)

Min. prefetch

Minimum prefetch delay (msec).

Default: 60 msec

[Further help under Network](#)

Max. prefetch

Maximum prefetch delay (msec).

Default: 240 msec


Jitter buffer

 Further help under [Network](#)

Maximum

Delay that can be set for the jitter buffer (msec).

Default: 360 msec

 Further help under [Network](#)

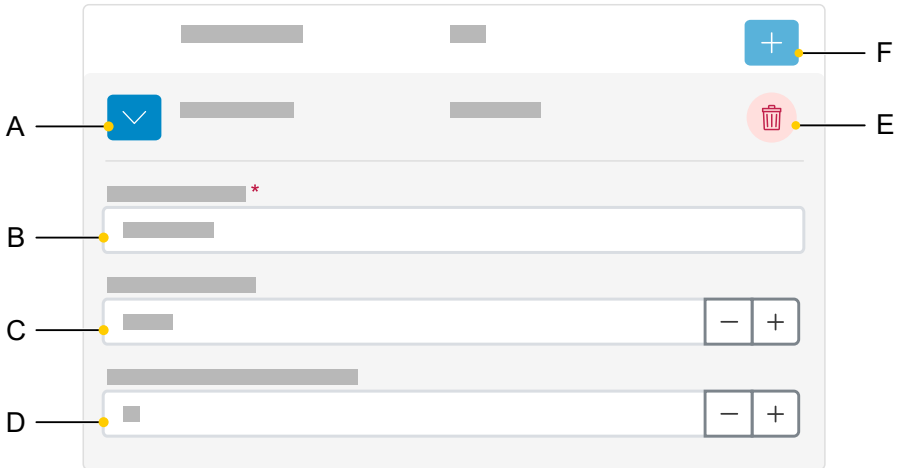
STUN server

STUN server

STUN server management

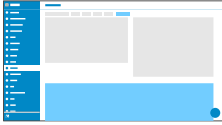
Settings

STUN server management



- A Displays/hides all settings for a STUN server.
- B **STUN server URL** field, entry mandatory
- C **STUN server port** field, 1 ... 65535.
- D **Registration time lapse (min.)**, 5 ... 60 minutes.
- E Deletes the selected STUN server.
- F Adds another STUN server to the list. The list is dynamic. Settings can be made for up to eight STUN servers.

Settings




STUN server URL

Requirement:


- Configured DNS server


Enter the STUN server URL.


 Further help under [Network](#)

STUN server port

1 ... 65535

 **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.

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

 Further help under [Network](#)


Time lapse registration (min.)

5 ... 60 minutes

Settings

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 [Network](#)

LDAP/Google

LDAP/Google

LDAP

Google

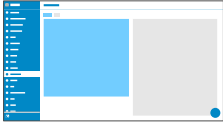
LDAP

LDAP

[Basic Settings](#)

[LDAP filter](#)

Basic Settings



LDAP-Protocol

Protocol used on the LDAP server

LDAP

By default, unencrypted data traffic, Port 389.

LDAP StartTLS


Data traffic encrypted using Transport Layer Security, Port 389.

LDAPS

LDAP via SSL technology, Port 636.


Active

Switches on the directory service request.

 Further help under [Contacts](#)

Server

The LDAP server's domain name or IP address

 Further help under [Contacts](#)


Port

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

LDAPS (recommended): Port 636


LDAP StartTLS: Port 389


LDAP: Port 389

 Further help under [Contacts](#)

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 the web interface of your PBX under **User data > Address Books > Settings** in the row **Simplified user name** next to **User name**(e.g. cn=auerswaldschandelah,dc=auerswald).


 Further help under [Contacts](#)

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 the web interface of your PBX under **User data > Address Books > Settings** in the row **Simplified user name** next to **Password**.


Basic Settings

 Further help under [Contacts](#)

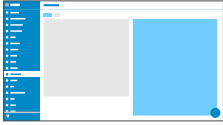
Search area


Point in the folder from which the LDAP search starts.

Example: BaseDN dc=auerswald

 Further help under [Contacts](#)

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 [Contacts](#)


Number filter

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

-  Further help under [Contacts](#)


Number filter dial preparation

Filter for displaying the suggestions list in dial preparation.

-  Further help under [Contacts](#)


Max. LDAP contacts

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

 Further help under [Contacts](#)


Max. matches

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

 Further help under [Contacts](#)


Name attributes

Relevant name attributes.

 Further help under [Contacts](#)


Phone number attributes

Relevant phone number attributes.

 Further help under [Contacts](#)


Sort by

Sorting algorithm (by First name, by Last name)

 Further help under [Contacts](#)


Name format

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

 Further help under [Contacts](#)


Number search incoming

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

 Further help under [Contacts](#)

Number search outgoing

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

 Further help under [Contacts](#)

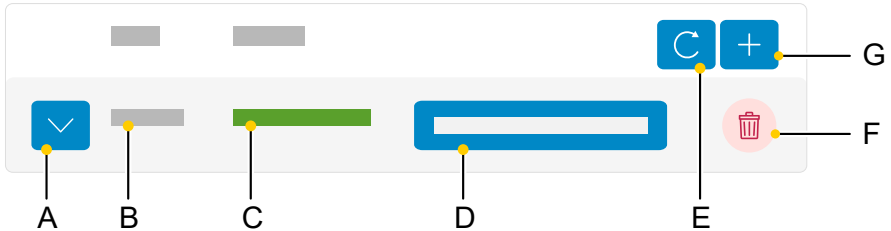
Google

Google


[Google Account Management Settings](#)

[Authenticate Google account](#)

Google Account Management



A Displays/hides the settings for a Google account.

 Further help under [Contacts](#)

B Shows the name of the account.

C Shows the current status.

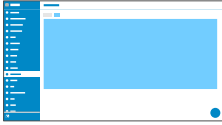
D Starts synchronisation or authentication.

E Refreshes the display.

F Deletes the account.


G Adds a new account to the list.

Settings




Name

Freely selectable name. This name is used to identify the account within the phone configuration.

 Further help under [Contacts](#)


Google group

Determines which contact data of the Google account (individual group or all) are synchronised with the phone.

 Further help under [Contacts](#)


Automatic synchronization

The contact data of the Google account is synchronised at the set interval. Alternatively, the synchronisation can also be started manually.

 Further help under [Contacts](#)

Interval (hours)

Determines after what time the contact data of the Google account is synchronised.


 Further help under [Contacts](#)

Authenticate Google account




Release code | Copy

Copies the release code provided by Google to the clipboard so it can be used for authentication.

 Further help under [Contacts](#)

Authentication

You are transferred directly to Google, so you can authenticate your Google account. Input the required data in the authentication dialogue.

 Further help under [Contacts](#)

Cancel

The dialogue for the authentication is closed, already created data is discarded.

Telephony

Telephony

Call settings

Call bindings

Multicast

Call settings

Call settings

Call forwarding

Call signalling

Direct call

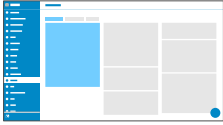
Pickup

Call history

Dialled calls

Automatic call acceptance

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.

Call forwarding

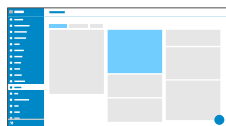
 Further help under [Call forwarding](#)

Waiting time before call forwarding

Sets the number of the seconds that the phone waits before activating call forwarding.

 Further help under [Call forwarding](#)

Call signalling



Call waiting

Indicates an incoming call during a call.

Audible indication

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](#)


Direct call



Destination


Enter the phone number that is to be called after the specified waiting time has elapsed.

i Notices: The function is only active if a destination has been entered. Comply with the phone number format set for the PBX when entering external phone numbers.

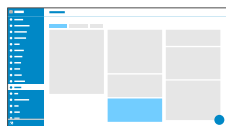
 Further help under [Direct call](#)

Waiting time before call starts in s

Shows the number of seconds the device will wait before starting the call to the specified destination.

 Further help under [Direct call](#)

Pickup



Pickup list auto. opening

Opens the pickup list automatically as soon as there are new calls that can be taken.

 Further help under [Pickup](#)

Play pickup tone

A signal is played, depending on the setting, (even if the pickup list is already open):

- **Never**
- **When list auto. opens**
- **On new call in list**

 Further help under [Pickup](#)


Call history



Log calls


Activates the logging of incoming and outgoing calls.

i Note: If the function is switched off, calls cannot be started by redialling the number.

 Further help under [Call history](#)


Call completed elsewhere

Calls that have already been completed elsewhere are logged and displayed.

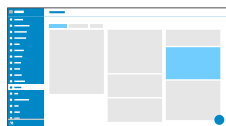
 Further help under [Call history](#)

Logging by call type

Selected call types are logged and displayed. The call types are determined on the basis of the Alert Info.

 Further help under [Call history](#)

Dialled calls



Anonymous call

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

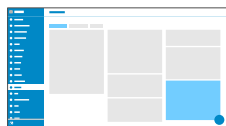
Automatic start of call

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.

Automatic call acceptance



On SIP request

Received calls use an Alert Info header containing `info=alert-autoanswer` to request immediate call acceptance.

➔ Further help under [Automatic call acceptance](#)

After timeout

Sets the number of seconds that the phone waits before automatically taking an incoming call. Automatic call acceptance is prevented by selecting the setting **Not automatically**.

➔ Further help under [Automatic call acceptance](#)


Beep when connecting

Uses a tone to signal incoming calls.

➔ Further help under [Automatic call acceptance](#)

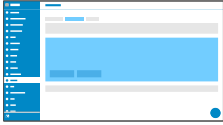
Interrupt active calls

Active calls are put on hold when InterCom calls are received.

 **Note:** For active calls to be interrupted, the Call waiting function must be enabled.


 Further help under [Automatic call acceptance](#)

Call bindings



Name

Freely selectable name.

 Further help under [Call bindings](#)

Remote party

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

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

Example 1: 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. Configure another call binding with remote party 554
2. Enter this regular expression `55[1-4]?@.*`

When you enter this regular expression, these phone numbers are recognised as valid: 55, 551, 552, 553 and 554.

A camera image would not be displayed for:


- phone numbers with more than 3 digits


Call bindings

- phone numbers that do not start with 55
- phone numbers with digits outside the range 1 to 4 after 55

Example 2: Call binding in connection with an AVM FRITZ!box


The camera is connected to an AVM FRITZ!box with the internal remote party **620. * In regular expressions, the star key has a function assigned to it and must therefore be marked as a digit by adding escape characters to it. The correct entry is: `**620@fritz.box`.

 **Note:** The AVM FRITZ!box sends internal phone numbers as `xxx@fritz.box`.

 Further help under [Call bindings](#)


Camera

Select the camera whose images are to be displayed.

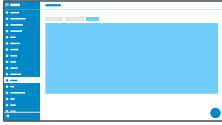
 Further help under [Cameras](#)

Softkeys | key 1/2

Selects a configured function key.

 Further help under [Call bindings](#)

Multicast



Name

Freely selectable name. The name is used for identification within the phone and is displayed during audio playback.

➔ Further help under [Multicast](#)

IP address

Specifies which multicast address is to be listened to.

➔ Further help under [Multicast](#)

Port


Specifies the port to be monitored.

➔ Further help under [Multicast](#)

Codec

Indicates which codec is expected.

Multicast

 Further help under [Multicast](#)


Loudness

Current loudness

The audio stream is played at the currently set volume.

Maximum loudness

The audio stream is played at the maximum volume.

 Further help under [Multicast](#)

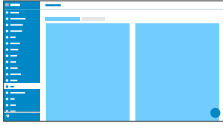
Sound

Sound

[Ringtones by call type](#)

[Ringtone management](#)

Ringtones by call type



List of search terms used to determine matches to the alert info in the SIP Invite.

Search term

Search term for determining call types from the alert info. RegExp expressions are supported.

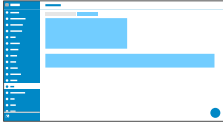
 Further help under [Sound](#)

Ringtones by call type

Assigns one of the available ringtones to the search term.

 Further help under [Sound](#)

Ringtone management



Import

Clicking in the grey field opens the file selection. An audio file (*.wav, *.mp3, *.ogg) stored on a data medium can be selected.

Import:Uploads the selected audio file to the phone.

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

 Further help under [Sound](#)

Memory utilisation

Displays how much memory is occupied by imported ringtones.

 Further help under [Sound](#)

Date and time



Time Phone

Display of the time set in the phone. The date and time depend on the Time Zone setting.



Refreshes the display.

Date Phone

Display of the date set in the phone. The date and time depend on the Time Zone setting.




Refreshes the display.

NTP server


Date and time are queried and synchronised by the NTP server entered here. Using a geographically close NTP server or NTP pool results in the highest possible accuracy. At the same time, it must be ensured that the registered NTP server can be reached, even if the phone cannot reach addresses on the Internet.


Example: pool.ntp.org

 Further help under [Date and time](#)

Time zone

The phone's date and time are set depending on the time zone selected here. The time zone should therefore be chosen to match the location of the phone.

 **Note:** When changing the time zone, all time-stamped data on the phone (such as call log entries, calendar entries, or emails) is adjusted to the changed time zone.

 Further help under [Date and time](#)

Time format

12 h: time display in 12-hour format. In some views, the time of day is also displayed.

24 h: time display in 24-hour format.

 Further help under [Date and time](#)

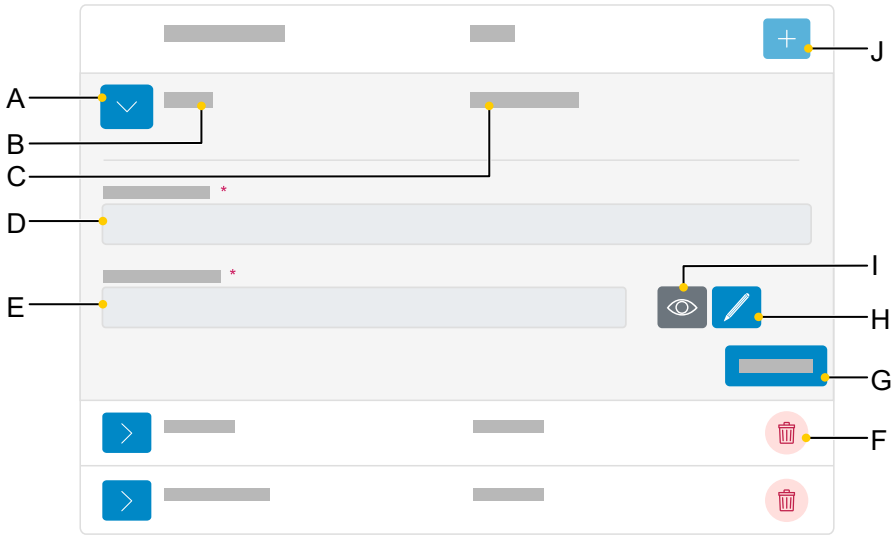
Login

Login

User administration

Settings

User administration



A Displays/hides the settings for a user

B Displays username as assigned in D.

C Displays the role as assigned when the new user was created.

Note: Administrator rights can only be assigned when a new user is created.

D **Username** field

E **Password** field

F Deletes a user.

G Stores all settings for a user.

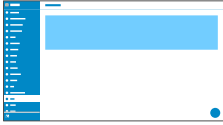
H Click on the Edit icon to assign a new password.

I Displays/hides the currently set password (only in Edit mode).

User administration

J Adds a new user to the list.

Settings



User name

Press this to display the user name.

i Note: Do not enter colons ": In the user name:


↗ Further help under [User roles and permissions](#)

Password

Enter/change the password here.


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

- 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

 Further help under [Passwords](#)

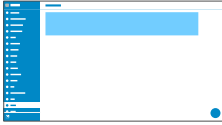
Admin

Assigns administrator rights to the user.

 **Note:** Administrator rights can only be assigned when a new user is created.

 Further help under [User roles and permissions](#)

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 [Backup and restore](#)

Restore backup

Clicking in the grey field opens the file selection. A backup file (*.xml) stored on a disk can be selected.

Import: Loads the selected backup file into the phone.

 Further help under [Backup and restore](#)

Access

Access

General settings

Telephone menu

General settings

General settings

[Developer options](#)

[Action URL](#)

[Logging](#)

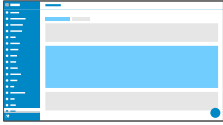
Developer options



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



Evaluate action URLs

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

Note: Activating **Evaluate action URLs** is not possible if the function **Web administration (https)** is inactive.

Further help under [Action URL](#)

Action URL server

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

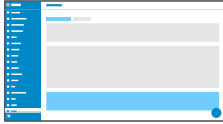
Further help under [Action URL](#)

Generate new token

Provides a static password for the phone interface.

Further help under [Action URL](#)

Logging



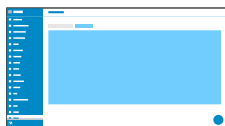
Extended Logging

Enables debug info recording.

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

➔ Further help under [Service functions, problem solving](#)

Telephone menu



Filter settings

Limits the number of menu options are displayed. For administrators, the reduced display is applied to the phone. For users, the reduced display is applied both to the phone and the web interface.

Note: Only administrators can see this page.

Further help under [User roles and permissions](#)

Using the Phone

Basic Knowledge

Calls (Call history)

Cleaning

Contacts

Gallery

Pickup

Settings

Sync

Voicemail App

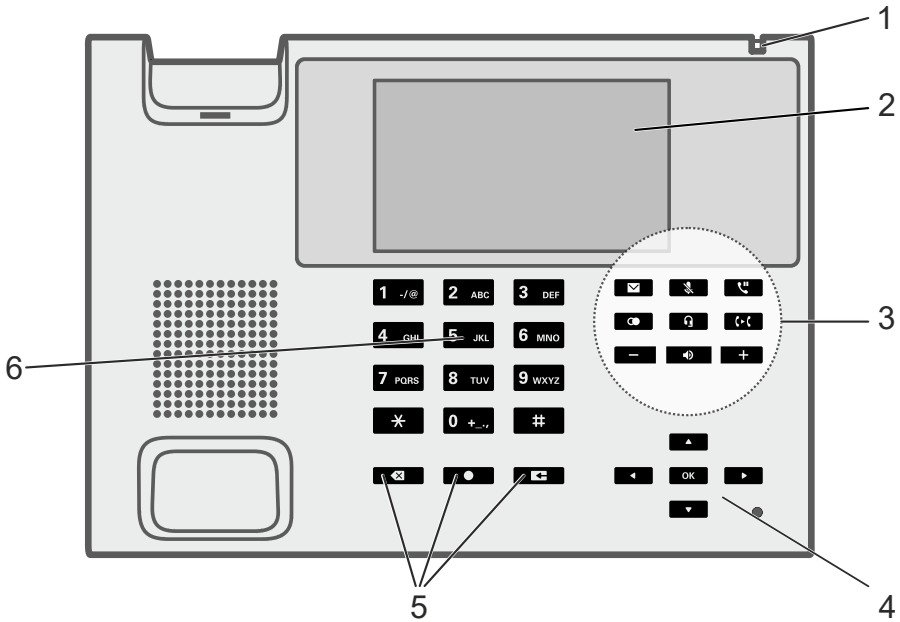
Basic Knowledge

Keys and LEDs

Display (Home screen)

Operating Instructions

Keys and LEDs



1 housing LED

The housing LED indicates the following statuses:


- Flashing red (quickly): incoming call
- Lit in red: active call


2 Touch function keys on the display


The configured touch function keys are displayed in the right area of the home screen of the display. The status of the stored function is signalled by a coloured marking.

The operation is carried out by


- Tapping the key
- Selection via directional pad and OK



The configuration takes place, among other things: through:  **Add entry to list**

 Further help under [Function keys](#)

 **Note:** If more touch function keys are configured than can be displayed at the same time, navigation through the list is as follows:

- Directional pad key
- Gesture control


 **Note:** If a function key programmed as a speed dialling number is to be used for queries during a conversation, the home screen of the display can be called up for this purpose. When dialling begins, the programmed speed dials are also offered as suggestions in a list.

- Enter idle state: 
- If necessary, back: 

3 Fixed function keys

Messages with LED

- Displays these lists:
 - Voice messages
 - Missed calls
- Pressing the message key displays the messages. Depending on the device variant, you can press the message key again to clear the display if you do not want to respond to the message.

 **Note:** The behaviour of the LED message key can be configured via **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: incoming call
- LED is shining red: active headset call

 **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: incoming call
- LED flashing red: loudspeaker listening is enabled

Keys and LEDs


- LED is shining red: hands-free calling is enabled

plus

- Increases the volume of the ringer, receiver, or loudspeaker, depending on operational state.

4 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. By pressing OK  the activated element is selected and the element's function is executed.

5 Delete, Home and Back

Delete

- Press this to delete the last character before 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.

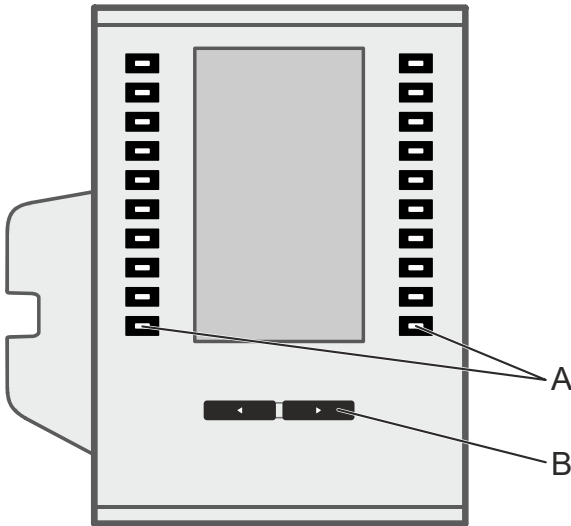
6 Keypad

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.

Keys and LEDs

Key	Assignment
1	1 - / @
2	a b c 2 A B C ä Ä
3	d e f 3 D E F
4	g h i 4 G H I
5	j k l 5 J K L
6	m n o 6 M N O ö Ö
7	p q r s 7 P Q R S ß
8	t u v 8 T U V ü Ü
9	w x y z 9 W X Y Z
0	Space . , 0 + : ' \ " ? ¿ ! ¡ _
*	* () [] < = > « » ^ ' ` ~ { }
#	# % & § £ \$ €

COMfortel D-XT20/D-XT20i key extension module

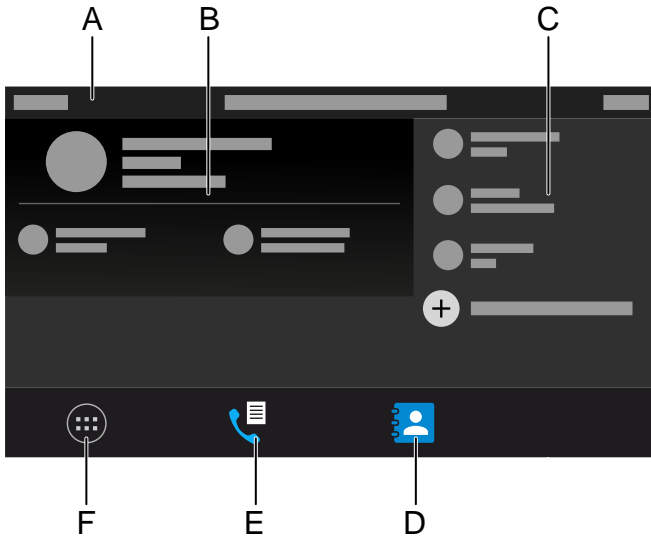


The number of programmable function keys on the device can be extended by adding up to three COMfortel D-XT20/D-XT20i key extension modules (not included in the scope of delivery). The module has 20 function keys (A). Each function key has a multicoloured LED that signals the status of the function stored on the first level. Next to the key, the associated key label and status are shown in the display.

i Note: The horizontal scroll bar at the top and bottom of the display shows the active key level (1-3). The key labelling in the display changes with the key level. The key level can be changed by pressing the control rocker (B).

➔ Further help under [Function keys](#)

Display (Home screen)



A Status bar

Displays calendar week, weekday, date and time.

In addition, displayed system icons show the status of certain functions.

📞 Call forwarding enabled immediately (locally on the phone).

📞 Call forwarding if busy enabled (locally on the phone)

📞 Call forwarding on no reply enabled (locally on the phone)

🚫 Do not disturb enabled (locally on the phone)

👤? Anonymus call enabled

🔕 Ringer disabled

🔒 VPN connected

Bluetooth active

B Status widget

The status widget displays the following information:


- Avatar or profile picture
- Possible displays to identify the phone:
 - Device name
 - Current Identity: Display Name or SIP Username@SIP Registrar
 - No WebUI (if web administration (<https>) is disabled and no identity has been configured)
 - IP address (if device is connected but not registered)

 Further help under [Display and LED](#)

-  Missed calls

Opens the “Missed calls” list.

 Description of the operation under [Calls \(Call history\)](#)

-  Voice messages

Starts the Voicemail app (if configured)

 Description of the operation under [Voicemail App](#)

Alternatively: Calls the mailbox.

The dialler is displayed.

Follow the spoken instructions to find out what to do next.

C Area for freely programmable touch function keys

 Further help under [Keys and LEDs](#)

D **Contact**

Opens the contacts.

 Description of the operation under [Contacts](#)

E **Calls**

Calls up the call lists.

 Description of the operation under [Calls \(Call history\)](#)

F **Menu/Apps**

Opens the available apps.

 Further help under [Apps](#)

Operating Instructions

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)

Operating Instructions

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

- web page contents
- images in the Gallery app.






Swipe

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.

Status bar

The status bar provides the following information, accessible at any time and from any menu:

-  New messages
-  Missed calls
-  Available updates
-  Unregistered identities
-  Warnings


To display the status bar,

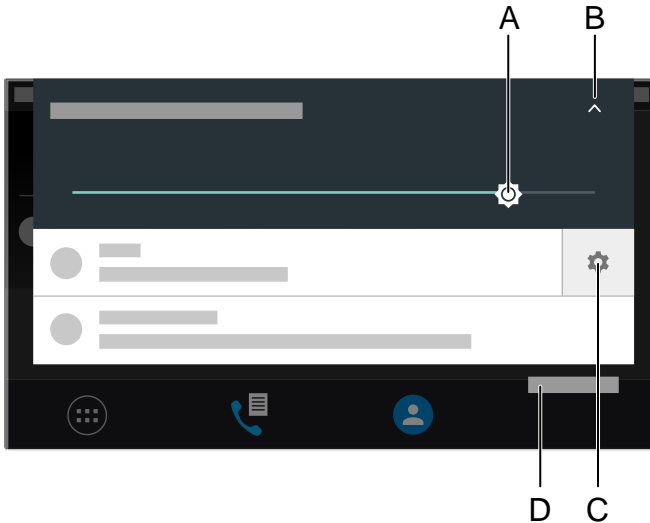
- swipe from the top edge of the display to the bottom

Operating Instructions


- press the  Messages key

To hide the status bar,

- swipe from the bottom edge of the display to the top
- press the  Back button




- A Brightness adjuster
- B Toggles the brightness control on or off
- C Possible notification settings (alternatively by long pressing the notification)
- D Deletes all notifications

 **Note:** **Delete all** is only displayed when the brightness adjuster is hidden.

Virtual keyboard

You can display or hide the screen keyboard as required for text entry fields.

For this, press  for approximately 2 seconds.



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**

Operating Instructions

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

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.

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.

i Note: Any text already present in the entry field is overwritten by the text you input.

i Note: 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

Element

Function

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.




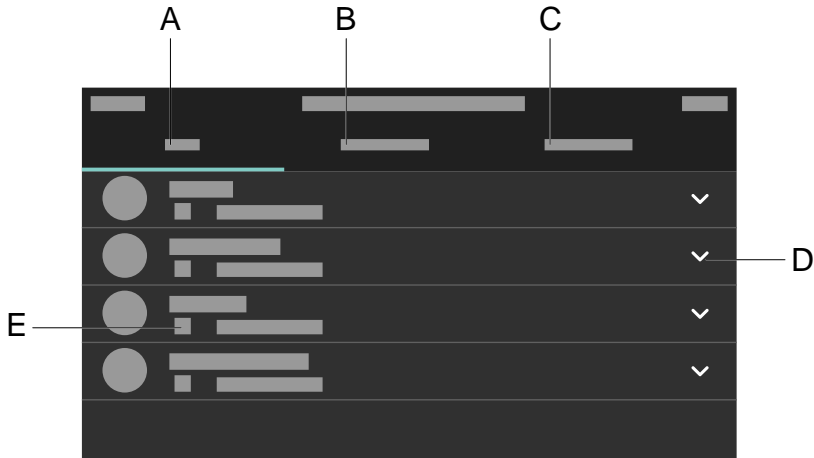
Use the sliders to make infinitely variable settings (e.g. brightness or volume settings). The slider's position shows where the setting is. The further the slider is to the left, the lower the value that is set. The further the slider is to the right, the higher the value that is set.

Change input mode (abc < > 123).

if you want to use the keypad to enter data in fields: To toggle the input mode (abc < > 123), press and hold (for approx. 2 seconds) .

Calls (Call history)

- Note:** Tap on an entry in the list to dial it.
- 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.
- Note:** To leave the call history press back .



A Call list **ALL**

Lists all calls sorted chronologically.

B Call list **MISSED**


Lists all calls, sorted chronologically.


C Call list **OUTGOING**


Lists all outgoing calls, sorted chronologically.

D  or alternatively OK key


Displays a list containing these options:



 **Call details:** Shows more details about the selected call.



 **Edit number before call:** Displays the previously selected phone number and allows editing or deleting.

 **Add contact:** Switches to the menu for adding a contact.

 Details about the settings are in [Edit/Add contact](#)

 **Clear entry:** Deletes the selected entry in the call history.

 **Note:** Alternatively, press Delete .

 **Note:** To delete the entire list, press Delete  for approximately 2 seconds.

E Entry

Displays information about the call or call partner such as phone number/contact with profile picture, call time and date and the call type:


 Accepted call

 Missed call

 Outgoing call


 Unsuccessful outgoing call

Calls (Call history)

 Successfully forwarded call

 Rerouted call

 Call taken externally

 Further help under [Call history](#)

Cleaning



Cleaning

Cleaning mode is activated for 60 seconds. During this period

- every press of the key and every touch on the display is ignored
- if do not disturb is enabled



Caution: Dialing an emergency number is not possible in cleaning mode.



Further help under [Cleaning](#)

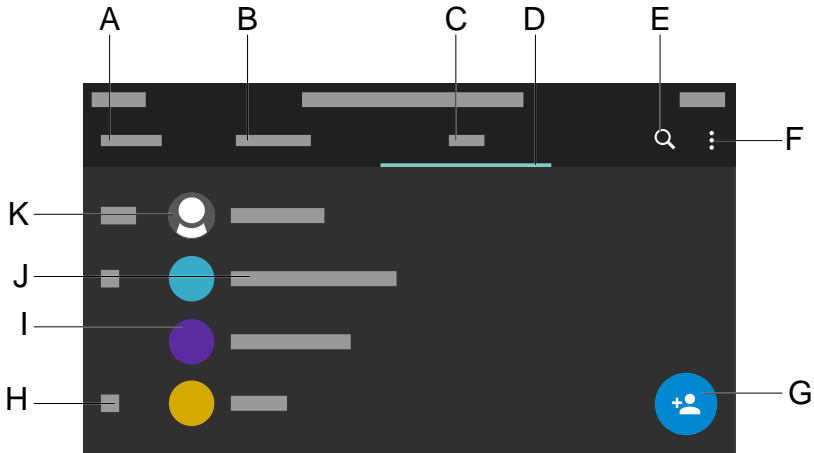
Contacts



[Overview](#)[Contact/Favourites](#)

[Deleting contacts](#)


[Edit/Add contact](#)

OverviewContact/Favourites



- A Title of the current application: **Contacts**
- B **Favourites**:Lists all the contacts that are marked as Favourites (identified by a star).
- C **All**:Lists all contacts in a sorted sequence. The sorting procedure you select defines the sorting sequence.
- D Displays the currently active list.
- E  Displays a search field. Use the screen keyboard that is now displayed to search for names, parts of names or numbers.
- F  Displays these options:
 - **Displayed contacts**
 - **Manage accounts**
 - Opens the settings for LDAP
 - **Settings**

Here, you can modify the selected sorting process.


G  Opens the menu **Add Contact**.

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 ME Contact, always in 1st place.

 **Note:** If set up, the LDAP and Google contacts are listed in addition to the locally created contacts. Characteristics:

- An alphabetic register is not displayed.
- You cannot delete or edit LDAP and Google contacts, or mark them as a favourite.
- The contact photos stored on the LDAP server are called every time a call is made. There may be a slight delay in displaying them.

 Further help under [Contacts](#)

Deleting 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.

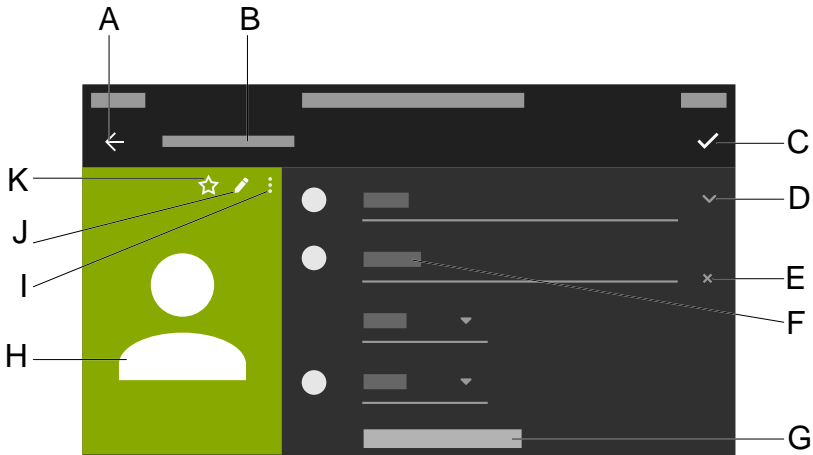
A column with a check box is displayed.

2. Select the contact you want to delete.

3.  > **DELETE**

4. Confirm the action.

Edit/Add contact



A Jumps to the menu **Contacts**.

B Title of the current application: **Add Contact****or****Edit 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 data using the keypad or screen keyboard.

✓ You can then display or edit more details for the name.

G **Other fields**.

H Profile of the contact you have created.


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


I **Delete** is displayed as an option.

Edit/Add contact

J Enable you to edit an existing contact.

K Marks the selected contact as a Favourite.

 **Note:** LDAP and Google contacts look different from locally created contacts:



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

Gallery

More options

Displays options for performing more editing on the selected image, and displaying it.


Set picture as

-  **Background:** 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 [Display and LED](#)

Pickup

Pickup

All the calls that can be picked up from the pickup list are displayed and sorted by time in the app  **Pickup**.

If the function below has been enabled, the global pickup list is displayed automatically for new calls that can be taken but have not previously been displayed: **Pickup list auto. opening**.

The pickup list for the display of calls of a single key that can be picked up appears with the enabled function **Pickup-choice on key-press**.

 Further help under [Pickup](#)

Settings

Network

Identities

Bluetooth

Sound

Language and location

Display and LED

Telephony

Function keys

Scripts

Camera

Update

Using provisioning

Access

Apps

Date and time

Contacts/LDAP

About phone

Network

Current Settings

IPv4 settings

IPv6 Settings

VLAN

VPN

Topology

Current Settings

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).


 Further help under [Network](#)

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 [Network](#)

Subnet mask


Example: 225.255.255.0

 Further help under [Network](#)

Gateway


Example: 192.168.178.1

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 [Network](#)


DNS 1

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

 Further help under [Network](#)

DNS 2

Optional

 Further help under [Network](#)

IPv6 Settings

IPv6 mode

Auto

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


Disabled

Disables IPv6 mode. IPv4 over DHCP is used.

 Further help under [Network](#)


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 [Network](#)

DNS 1


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

 Further help under [Network](#)

DNS 2

Optional


IPv6 Settings

 Further help under [Network](#)

VLAN

Phone VLAN


Switches on VLAN for the phone.

 Further help under [Network](#)

Phone VLAN ID

Enter the phone's VLAN ID: 1 ... 4094

The associated data packets are tagged with this ID.

 Further help under [Network](#)

Phone VLAN priority

0 (lowest priority) to 7 (highest priority)

 Further help under [Network](#)

PC port VLAN

Switches on VLAN for the PC port.


 Further help under [Network](#)

PC port VLAN ID

Enter the PC port's VLAN ID: 1 ... 4094


VLAN

The associated data packets are tagged with this ID.

 Further help under [Network](#)

PC port VLAN priority


0 (lowest priority) to 7 (highest priority)

 Further help under [Network](#)

VPN

VPN


Switches on VPN for the phone.

 Further help under [Network](#)

User name

User name for the VPN connection.


Your network administrator will give you your user name.

 Further help under [Network](#)

Password

Password for the VPN connection.

Your network administrator will give you the password.

 Further help under [Network](#)

Topology

Topology


Basic Settings

STUN server

Basic Settings


Check hostname

Checks whether the certificate belongs to the domain/IP.

 Further help under [Network](#)

FrameSize


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

 Further help under [Network](#)

Jitter buffer

Specifies how many RTP packets can be cached to buffer or compensate for disruptions.

Initial value Initial prefetch delay value (msec).

 **Note:** The value must lie between Min. prefetch and Max. prefetch. If the Initial value = 0, prefetch is deactivated.

Min. prefetch: Minimum prefetch delay (msec).


Default: 60 msec

Max. Prefetch: Maximum prefetch delay (msec).

Default: 240 msec


Maximum: Delay that can be set for the jitter buffer (msec).


Default: 360 msec

 Further help under [Network](#)

RTP off when silent

Ends the sending of RTP packets if no active conversation is taking place.

 **Note:** If this function is switched on, parts of the call can seem like breaks in the connection because background noises are cut off sharply.

 Further help under [Network](#)

STUN server

Opens the STUN server management.

 Details about the settings are in [STUN server](#)

LLDP

If this function is enabled, LLDP packages are sent regularly to the directly connected LLDP-enabled switch.

 Further help under [Network](#)

LLDP: Interval in seconds


LLDP package sending frequency

30 to 3600 sec

Minimum: 30 sec


Basic Settings

Default: 30 sec

 Further help under [Network](#)


Compact SIP headers


If the provider requires it: Uses compact SIP headers to reduce packet sizes.

 Further help under [Network](#)

No TCP for UDP

If the provider requires it: Prevents switching to TCP for large packets.

 **Note:** If this function is switched off, large packets are sent via TCP instead of UDP in accordance with RFC.

 Further help under [Network](#)

STUN server

/ Add STUN server


Adds another STUN server to the list. The list is dynamic. Settings can be made for up to eight STUN servers.

STUN server URL

Requirement:


- Configured DNS server


Enter the STUN server URL.


 Further help under [Network](#)

STUN server port

1 ... 65535

 **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.

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


 Further help under [Network](#)

Time lapse registration (min.)

5 ... 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 [Network](#)

Identities




[Managing Identities](#)

[Basic Settings](#)


[Options for experts](#)

Managing Identities

The following icons indicate the status of the identities:


-  Identity registered
-  Identity unregistered
-  Identity inactive, not configured

Display settings


1. Select an identity in the list.
2. Tap or confirm with OK  to open 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 (---) from the list.
2. Confirm your selection with OK .
3. Make the settings as described under **Identities**.

A new identity is added to the list.

 Further help under [Identities](#)


Deleting an identity

1. Select the identity you want to delete 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 the selected identity on.

 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 Display name and in the phone below the status bar.

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

 Further help under [Identities](#)

Authentication name

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

Fallback for


Ringer Tone

Name sources

Registrar


SIP domain


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


 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.)

5 ... 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](#)


Early re-register (sec)

Shortens a re-registration by the specified number of seconds. Early re-registration prevents the registration from expiring prematurely.

 Further help under [Identities](#)

Refresh register at 1/2

Turns on re-registration after half of the negotiated maximum 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 [Identities](#)

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 [Identities](#)

Protocol type


UDP


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

Note: If very large data packets are present, TCP is used instead of UDP. The maximum size of a data packet can vary according to the network. (RFC 3261 > TCP)

TCP

(Transmission Control Protocol) sends data packets individually, segmented from a certain size and until receipt has been confirmed.


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

 Further help under [Identities](#)

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 [Identities](#)

Retry subscriptions

Type of repetition

Sets the interval at which attempts are made to configure a subscription on the PBX/provider, if an error occurs.

- **Never**

The device sends exactly one subscription to the PBX/provider. No other subscriptions are sent.

- **Fixed interval**

Attempts to subscribe on the PBX/provider are made at the specified interval.

- **Redouble interval**


The set number of seconds doubles after each attempt to subscribe on the PBX/provider.

Interval in seconds

Sets the time gap between two subscription attempts.

Minimum: 10 sec

Default: 180 sec

 Further help under [Identities](#)

Retry register

Type of repetition

Sets the interval at which attempts are made to register on the PBX/provider, if an error occurs.

- **Never**

The device makes exactly one attempt to register on the PBX/provider. There are no more registration attempts.

- **Fixed interval**

Attempts to register on the PBX/provider are made at the specified interval.

- **Redouble interval**

The set number of seconds doubles after each attempt to register on the PBX/provider.


Interval in seconds

Sets the time gap between two subscription attempts.

Minimum: 1 sec

SIP

Default: 10 sec

 Further help under [Identities](#)

DTMF method

Specifies the DTMF method used to transmit signals.

- **RTP event**

Transmission of event packets in the RTP stream

- **Inband**

Transmission of coded sound signals, directly in the RTP stream

- **SIP info**

Transmission of SIP info messages

 Further help under [DTMF](#)

NAT


SIP NAT traversal

Requirements:

- Configured DNS server
- If the option "active" is selected: **Registrar** enabled for the phone

Active

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 SIP request also contains an "rport" part in which the IP addresses used here (local, public) are transported. 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

NAT


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 unilateral call connections, a STUN server should be used.


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](#)

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, it is recommended to raise the value (e.g. to 180).


 Further help under [Identities](#)

Use ICE

Enable the best possible transmission route to be found between the phone and PBX/provider.

 **Note:** ICE must only be activated if the other end supports ICE.


NAT

 Further help under [Identities](#)

Function codes

Pickup code

This is required to perform a call pickup. Enter the character string stored on the PBX/at the provider, e.g. **##06** for Auerswald PBXs.

 Further help under [Identities](#)

Voicemail number

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

 Further help under [Identities](#)

CLIR type

(Number 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.

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 is "anonymous".


 Further help under [Anonymous call](#)

Audio

Music on hold


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


 **Note:** If "Music On Hold" has already been enabled on the PBX/at the provider, this function can remain switched off.

 Further help under [Identities](#)

Play popup notification sound

Enables audible signalling of new popup messages.

 **Note:** No tone is output when a new popup message is displayed during an active call.


 Further help under [Notifications](#)


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.

To achieve the best possible balance between bandwidth and speech quality, we recommend you do not change the sequence of the codecs.


 **Note:** Codecs that are assigned multiple times are automatically removed from the list and replaced with---.

 Further help under [Identities](#)

Security


SIPS active


Enables the encrypted transfer of signalling data.

 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 [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](#)

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 [Identities](#)

URL

Server address for the outbound proxy.


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


 Further help under [Identities](#)

Port

Port for the outbound proxy.


Outbound proxy

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

 Further help under [Identities](#)


Alternative URL

Alternative server address for the outbound proxy.

 Further help under [Identities](#)

Alternative port

Alternative port for the outbound proxy.

 Further help under [Identities](#)

Fallback for

Fallback for

Determines whether the identity has a fallback identity or is itself a fallback identity.

No fallback

There is no fallback provided for the identity.

The identity is not a fallback identity.


Identity

The identity is fallback identity for the selected identity.

Display only:**Identity has a fallback**

For the identity, the displayed identity is intended as a fallback.

The identity itself can no longer be selected as a fallback identity.

 Further help under [Identities](#)

Ringer Tone

Ringer Tone


Assigns a ringtone to the identity.

 Further help under [Sound](#)



Name sources

The sequence in which the name sources are displayed in the list sets the sequence in which they are applied. The first source that contains a name is used for the display.

Name sources that are not to be displayed can be removed from the list. Depending on the device variant, press


- 
- **Delete**
- Selecting a list entry opens the selection list, select ---.

Depending on the device variant, to add a name source, press

- 
-  **Note:** Only displayed if there is a free place in the list.
- Selecting an empty list entry (---) opens the selection list of all the available name sources.

Depending on the device variant, the default state of the name sources is created by


- **Reset to default**
- **Default**

 Further help under [Identities](#)

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.

Bluetooth


 Further help under [Bluetooth](#)

Connected 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 search terms used to determine matches to the alert info in the SIP Invite.

Search term

Search term for determining call types from the alert info. RegExp expressions are supported.


Ringer Tone

Assigns one of the available ringtones to the search term.

 Further help under [Sound](#)

Handset sidetone

Turns on the sidetone in the handset for a better sound experience (default).

 **Note:** In permanently noisy environments, it makes sense to switch off the sidetone. The volume is automatically increased.

 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](#)

Language web interface

Changes the language used on 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 [Display and LED](#)

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 [Display and LED](#)

Show icons on D-XT20(i)

Switches on the display of icons and images on all connected key extension modules.

 Further help under [Display and LED](#)

Camera as wallpaper

Opens a menu in which you can select one of the configured cameras that is to be used as the wallpaper for the idle screen.

 Further help under [Display and LED](#)

Telephony

Call waiting

Audible indication

Do not disturb

Call forwarding

Anonymous call

Automatic start of call

Direct call

Automatic call acceptance

Call Completion

Call history

Call bindings

Pickup list auto. opening

Play pickup tone

Multicast

Call waiting

Call waiting

Call waiting


Indicates an incoming call during a call.

Audible indication

Audible indication

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

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

Sets 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

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.

Direct call

Destination


Enter the phone number that is to be called after the specified waiting time has elapsed.

 **Notices:** The function is only active if a destination has been entered. Comply with the phone number format set for the PBX when entering external phone numbers.

 Further help under [Direct call](#)

Waiting time before call starts in s

Shows the number of seconds the device will wait before starting the call to the specified destination.

 Further help under [Direct call](#)

Automatic call acceptance

On SIP request

Received calls use an Alert Info header containing `info=alert-autoanswer` to request immediate call acceptance.

 Further help under [Automatic call acceptance](#)

After timeout

Sets the number of seconds that the phone waits before automatically taking an incoming call. Automatic call acceptance is prevented by selecting the setting **Not automatically**.

 Further help under [Automatic call acceptance](#)


Beep when connecting

Uses a tone to signal incoming calls.

 Further help under [Automatic call acceptance](#)

Interrupt active calls

Active calls are put on hold when InterCom calls are received.

 **Note:** For active calls to be interrupted, the Call waiting function must be enabled.

 Further help under [Automatic call acceptance](#)

Call Completion

Call Completion


The callback is triggered automatically by the PBX.


 Further help under [Call Completion](#)

Call history

Log calls


Activates the logging of incoming and outgoing calls.

 **Note:** If the function is switched off, calls cannot be started by redialling the number.

 Further help under [Call history](#)


Call completed elsewhere

Calls that have already been completed elsewhere are logged and displayed.

 Further help under [Call history](#)

Logging by call type

Selected call types are logged and displayed. The call types are determined on the basis of the Alert Info.

 Further help under [Call history](#)


Call bindings

 adding

Creates a new call binding.

Name

Freely selectable name.

 Further help under [Call bindings](#)

Remote party

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

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

Example 1: 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. Configure another call binding with remote party 554
2. Enter this regular expression 55[1-4]?@.*

When you enter this regular expression, these phone numbers are recognised as valid: 55, 551, 552, 553 and 554.

A camera image would not be displayed for:


- phone numbers with more than 3 digits
- phone numbers that do not start with 55


Call bindings

- phone numbers with digits outside the range 1 to 4 after 55

Example 2: Call binding in connection with an AVM FRITZ!box


The camera is connected to an AVM FRITZ!box with the internal remote party `**620.*`. * In regular expressions, the star key has a function assigned to it and must therefore be marked as a digit by adding escape characters to it. The correct entry is: `**620@fritz.box`.

 **Note:** The AVM FRITZ!box sends internal phone numbers as `xxx@fritz.box`.

 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](#)

Pickup list auto. opening

Pickup list auto. opening

Opens the pickup list automatically as soon as there are new calls that can be taken.

 Further help under [Pickup](#)

Play pickup tone

Play pickup tone

A signal is played, depending on the setting, (even if the pickup list is already open):


- **Never**
- **When list auto. opens**
- **On new call in list**

 Further help under [Pickup](#)

Multicast


Name

Freely selectable name. The name is used for identification within the phone and is displayed during audio playback.

 Further help under [Multicast](#)


IP address

Specifies which multicast address is to be listened to.

 Further help under [Multicast](#)


Port

Specifies the port to be monitored.

 Further help under [Multicast](#)

Codec

Indicates which codec is expected.

 Further help under [Multicast](#)

Loudness


Current loudness

Multicast

The audio stream is played at the currently set volume.

Maximum loudness

The audio stream is played at the maximum volume.

 Further help under [Multicast](#)

Function keys

[Managing function keys](#)


[Edit function keys](#)

[Functions and associated parameters](#)

Managing function keys

Choose a key

Selects a key for adjusting settings.

 Further help under [Function keys](#)


+ Add entry to list

Adds a new entry to the end of the list.

 Further help under [Function keys](#)

Delete

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.

Managing function keys


 Further help under [Function keys](#)

Edit function keys

Function

Selects the function and displays the necessary parameters.

 Details about the settings are in [Functions and associated parameters](#)

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

 Further help under [Function templates](#)

Key label

Displayed beside each function key on the screen.

Delete

Deletes the marked function key in the list.

Cancel

Closes the menu without adopting changes.

Save

Saves the entered parameters and close the window.

Functions and associated parameters

Speed dial

Identity

Activate config

Anonymous call

Automatic configuration switching

Bluetooth

Browser

Call forwarding immediately

Call forwarding on busy

Call forwarding on no reply

Call waiting

Call forwarding ext. calls: Immediately

Call forwarding ext. calls: On busy

Call forwarding ext. calls: On no reply

Cleaning

Default identity

Do not disturb

DTMF-Relay

DTMF call

Group

Group (incoming)

Group (outgoing)

Mute ringing

Park position

Pickup list

Pickups

Relays

Silent Alert


Functions and associated parameters

SIP message

VPN

XML Minibrowser

Speed dial


 Further help under [Speed dial](#)

Number/URI

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


Identity

Identity for which this function is set up.

 Further help under [Identities](#)


Signal BLF

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.


Speed dial

 **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 [Pickup](#)

InterCom

Enables the InterCom function. The connection with the destination number is established directly. No ringing or active call acceptance.


 Further help under [InterCom](#)

Signalise missed call

If this function is enabled, missed calls associated with the speed dial number are signalled with flashing green LEDs.

Pickup-choice on key-press

If this function is switched on, a list of all the calls relevant for the function key, that can be taken via pickup, is displayed.

 **Note:** If this function is switched on, a call cannot be taken by pressing a key. Instead, a list of all the calls that can be taken via pickup is displayed, even if the list only contains one call.

 Further help under [Pickup](#)

Do not show in pickup list

If this function is switched on, calls that can be taken by pickup are not forwarded to the global pickup list.

 Further help under [Pickup](#)

Pickup of connected calls

If this function is switched on, calls that have already been connected can be picked up. This option is useful, for example, if an answering machine or mailbox number has been assigned to the speed dialling key. The calls are included in the global pickup list.

 Further help under [Pickup](#)

Signal presence


If this function is switched on, the following states are transmitted (if they are supported by the PBX):

- Successful registration of the monitored phone number on the PBX
- Do not disturb
- Call forwarding

Default: disabled.

Identity

Identity

 Further help under [Identities](#)

Identity


Identity used to trigger subsequent calls.

Activate config

 Further help under [Function templates](#)

Identity

Identity for which this function is set up.

 Further help under [Identities](#)

Configuration id

The PBX assigns the configuration ID automatically.

Anonymous call

Anonymous call

 Further help under [Anonymous call](#)


No parameters necessary.

Automatic configuration switching

 Further help under [Function templates](#)

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).

Bluetooth

Bluetooth

 Further help under [Bluetooth](#)

No parameters necessary.

Browser

Browser


 Further help under [Apps](#)

Number/URI

Web server address


Call forwarding immediately


Call forwarding immediately

 Further help under [Call forwarding](#)

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


Call forwarding on busy

 Further help under [Call forwarding](#)

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


Call forwarding on no reply

 Further help under [Call forwarding](#)

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

Call waiting

Call waiting

 Further help under [Call waiting](#)

No parameters necessary.


Call forwarding ext. calls: Immediately

Call forwarding ext. calls: Immediately

 Further help under [Function templates](#)

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

Call forwarding ext. calls: On busy

 Further help under [Function templates](#)

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


Call forwarding ext. calls: On no reply

Call forwarding ext. calls: On no reply

 Further help under [Function templates](#)

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


Cleaning

Cleaning

 Further help under [Cleaning](#)

No parameters necessary.

Default identity


 Further help under [Identities](#)

Adapt speed dial keys

When switching the identity, all speed dialling keys are adapted to the current identity.


Do not disturb

Do not disturb

 Further help under [Do not disturb](#)

Identity

Identity for which this function is set up.

 Further help under [Identities](#)

DTMF-Relay

 Further help under [Function templates](#)

DTMF sequence

Numbers needed to perform the required function.

DTMF call


 Further help under [DTMF](#)

Number/URI

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

Identity

Identity for which this function is set up.

 Further help under [Identities](#)

DTMF sequence

Numbers needed to perform the required function.

Hangup when done

If this function is activated, the connection is disconnected immediately after the DTMF sequence is transmitted.

Group

Group

 Further help under [Function templates](#)

Identity

Identity for which this function is set up.

 Further help under [Identities](#)

Group

Group telephone number


Group (incoming)

Group (incoming)

 Further help under [Function templates](#)

Identity

Identity for which this function is set up.

 Further help under [Identities](#)

Group

Group telephone number


Group (outgoing)

Group (outgoing)

 Further help under [Function templates](#)

Identity

Identity for which this function is set up.

 Further help under [Identities](#)

Group

Group telephone number


Mute ringing

Mute ringing

 Further help under [Sound](#)


No parameters necessary.

Park position

 Further help under [Park position](#)


Number/URI

Phone number of the park position.

 **Note:** The phone number/URI to be assigned consists of the internal base phone number assigned in the PBX for the open query call and the park position (0 to 9).

Identity

Identity for which this function is set up.

 Further help under [Identities](#)

Pickup list

Pickup list

 Further help under [Pickup](#)

No parameters necessary.

Pickups

Pickups

 Further help under [Pickup](#)


No parameters necessary.

Relays

 Further help under [Function templates](#)


Identity

Identity for which this function is set up.


 Further help under [Identities](#)

ID

Relay ID number according to PBX.


 **Note:** The Relay function key is for relays with light, door opener or calculator operating mode. This function key is not suitable for manual relays. For additional information, refer to the Advanced Information about the PBX.

Silent Alert

 Further help under [Silent Alert](#)

URL

Required for forwarding the alarm message.

 **Caution:** The function can only be executed if the appropriate URL has been entered.

Delay


Countdown counter. An action is triggered after the countdown reaches zero.

Number/URI


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

Identity

Identity for which this function is set up.

 Further help under [Identities](#)

SIP message

 Further help under [SIP message](#)

Number/URI

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

Identity

Identity for which this function is set up.

 Further help under [Identities](#)

Message


This is where you enter the text for sending an SIP message.

Delay

Countdown counter. An action is triggered after the countdown reaches zero.


VPN

VPN

 Further help under [Network](#)

No parameters necessary.

XML Minibrowser

 Further help under [XML Minibrowser](#)

Number/URI

Web server address

Scripts

Scripts with existing parameters (e.g. send pings) are displayed here and can be edited.

 Further help in the [Auerswald DokuWiki](#)

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 [Cameras](#)


Name

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

 Further help under [Cameras](#)


URL


Address from which the camera images are fetched.

 Further help under [Cameras](#)

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 [Cameras](#)


Username

Enter the user name, if necessary.

 Further help under [Cameras](#)


Password

Enter the password, if necessary.

 Further help under [Cameras](#)

Use for incoming calls only

The camera image display is only activated for incoming calls.

 Further help under [Cameras](#)

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 default settings: <https://update.auerswald.de>

 Further help under [Update](#)

Restart phone

Restarts the telephone.

Update

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

 Further help under [Update](#)

Reset to default

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

Using 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 [Using 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 [Using provisioning](#)

Redirect Server

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

 Further help under [Using provisioning](#)

Provisioning from PBX search

Automatic provisioning of the phone is performed via the PBX.

Using provisioning

 Further help under [Using provisioning](#)

Provisioning server URL

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

 Further help under [Using 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 [Service functions, problem solving](#)

Web administration (https)

Activates access to the web interface.


 **Note:** You cannot call 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 [Service functions, problem solving](#)

Evaluate action URLs


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

 **Note:** Activating **Evaluate action URLs** is not possible if the function **Web administration (https)** is inactive.

 Further help under [Action URL](#)

Action URL server


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

 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 server

Date and time are queried and synchronised by the NTP server entered here. Using a geographically close NTP server or NTP pool results in the highest possible accuracy. At the same time, it must be ensured that the registered NTP server can be reached, even if the phone cannot reach addresses on the Internet.

Example: pool.ntp.org

 Further help under [Date and time](#)

Time format


12 h: time display in 12-hour format. In some views, the time of day is also displayed.

24 h: time display in 24-hour format.


 Further help under [Date and time](#)

Time zone

The phone's date and time are set depending on the time zone selected here. The time zone should therefore be chosen to match the location of the phone.

 **Note:** When changing the time zone, all time-stamped data on the phone (such as call log entries, calendar entries, or emails) is adjusted to the changed time zone.


Date and time

 Further help under [Date and time](#)

Contacts/LDAP

Active

Switches on the directory service request.

 Further help under [Contacts](#)


Max. LDAP contacts

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

 Further help under [Contacts](#)


Max. matches

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

 Further help under [Contacts](#)


Sort by

Sorting algorithm (by First name, by Last name)

 Further help under [Contacts](#)


Name format

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

 Further help under [Contacts](#)


Number search incoming

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

 Further help under [Contacts](#)

Number search outgoing

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

 Further help under [Contacts](#)

About phone

Device name

The name you assign to the device.

 Further help under [Display and LED](#)

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.

Network chip

Model of the network chip integrated in the phone.

Operating hours

Displays the operating hours of the device for service purposes.

Operating hours since last repair

For service purposes, displays the operating hours since the device was last repaired.

Licenses

Here, you can display the following license information:

- **End User License Agreement**
- **Data protection**
- **Open source licenses**
- **Android licenses**
- **Webview licenses system**
- **Webclient licenses**

Sync

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 you want.

- **Periodic auto sync**


Synchronises the account and device at the specified interval.

Default: activated

- **Sync Interval**

Select the interval you want.

Default: 2 hours

 **Note:** Sync Intervals that are less than 15 minutes are not permitted.

- **Sync on display switch-on**

Synchronises when the display is switched on, but not more frequently than 1x every 5 minutes.

Default: deactivated

Data service settings

Select the data service that is used for synchronisation:

Accounts

- **Use cellular networks**
- **Sync over WiFi**
- **Sync over Bluetooth**
- **Sync over Ethernet**
- **Sync over WiMAX**
- **Sync over other connections**

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](#)

Use

Displays this information:

- The current app version
- **Support**
- **Contact**

 Further help under [Sync](#)

VoiceMail App

VoiceMail App

[Overview](#)

[Faxes](#)

[Voicemails](#)

[Fax / Voicemail Boxes](#)

[Memory Overview](#)

[Synchronize](#)

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[Configuration](#)

Overview

Displays the following information:

- Logged on as (subscriber in the ICT system)
- Unread fax messages (volume)
- Unread voicemails (volume)

Faxes

Overview

Lists all fax messages, sorted by date. More information is displayed for each message:

- Name (sender)
- Number (recipient)
- Date and time
- Direction (outgoing/incoming)

View

A fax message can be opened and viewed in a PDF viewer. Standard functions such as zoom, scrolling etc. are available.

Delete

Removes the selected message from the overview.

These options are available:


- **Remove only from phone**
- **Remove from phone and from PBX**


Details

Select the line with the required voicemail to display more information about the selected message:

- **Name**
- **Number**
- **Trunk**
- **Archived**
- **Box Number**
- **Byte Size**
- **Date**
- **Is New**

Mark as read/unread

 **Note:** Unread messages are displayed in colour in the overview.

 Further help under [Voicemail App](#)

← Back

Returns to the higher level menu.

Vocemails

Overview

Lists all vocemails, sorted by date. More information is displayed for each message:

- Designation (caller)
- Number (caller)
- Date and time

Callback

Starts a call to the number of the caller who left the voicemail message.

Delete

Removes the selected message from the overview.

These options are available:

- **Remove only from phone**
- **Remove from phone and from PBX**

Download

Starts downloading a voice mail. You must download new vocemails before playing them back.

Play back

Plays back the downloaded voicemail.

Stop


Stops playing back the voicemail.

Details

Select the line with the required voicemail to display more information about the selected message:

- **Name**
- **Number**
- **Trunk**
- **Archived**
- **Box Number**
- **Byte Size**
- **Date**
- **Is New**

Mark as read/unread

 **Note:** Unread messages are displayed in colour in the overview.

 Further help under [Voicemail App](#)

[←Back](#)

Returns to the higher level menu.

Fax / Voicemail Boxes

Overview


Lists all the fax/voicemail boxes. Additional informational is displayed for every box:

- Name (box name)
- **Type(Faxes/Voicemails)**
- **Status(active/not active(permanent))**

➤ Opens the configuration for this box.


Fax Box

Decide whether the selected box is active/not active and whether the box is to be provided permanently.

 **Note:** Configure the Fax Box in the ICT system. You will find more detailed information in the Instructions for your PBX.

Voicemail Box

Decide whether the selected box is active/not active and whether the box is to be provided permanently.

 **Note:** Configure the Voicemail Box in the ICT system. You will find more detailed information in the Instructions for your PBX.

[←Back](#)

Returns to the higher level menu.

Memory Overview

The Memory Overview displays information about these parameters:

- **Status**
- **Free Space (%)**
- **Free Space (MB)**
- **Manufacturer ID**
- **Name**
- **OEM ID**
- **Revision**
- **Total Space (MB)**
- **Type**
- **Valid**
- **Read-only**

 Further help under [Voicemail App](#)

Synchronize

Synchronize

Starts comparing the telephone settings with the settings in the ICT system.

Logout

Logout

Logs the subscriber off from the app.

App Info

App Info

Provides information about the app version.

Displays the software license contract.

Configuration

Configuration

[Welcome](#)

[Login](#)

[Add ICT system](#)

[Add subscriber](#)

Welcome

Welcome

AcceptSie die Geschäftsbedingungen.

Login

First login

The ICT system and subscriber must be set up the first time you log in.

 Details about the settings are in [Add ICT system](#)

 Details about the settings are in [Add subscriber](#)

Login with existing data

Select the ICT system you want from the list.

The following options are available:

- **adding**

Adds another ICT system to the list.

 Details about the settings are in [Add ICT system](#)

-  **Edit**

 Details about the settings are in [Add ICT system](#)

 **Note:** Wurde ein Bestandsanlagen-Account gefunden, sind die Login-Parameter (**Name, IP address, Port**) vorbelegt.

Add ICT system

Name

Freely definable.

IP address

IP address in the network under which the ICT system is available.

Port

ICT system's remote access port.

Default: 443

Test server

Checks whether a connection to the ICT system can be established with the settings that have been made.

Save and add user

Speichert die vorgenommenen Einstellungen und wechselt zu **Neuer Teilnehmer**.

 Details about the settings are in [Add subscriber](#)

Add subscriber

Username


Subscriber's phone number.

Save credentials

If this function is active, you can assign a password.

Password

Freely definable.

 **Note:** Die Passwortvergabe ist nur möglich bei aktivierter Funktion **Save credentials**.

Save and log in

Saves the settings that have been made and opens the app.

Glossary

Technical Terms and Functions

Abbreviations

Technical Terms and Functions

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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

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

Client

Piece of computer hardware or software that accesses a service made available by a server.

Codec

A codec is a method that encodes (digitizes) analogue voice data for transmission and again decodes again, meaning converts into back into voice. There are various codecs that feature different voice data compression rates thereby require different band widths for data transmission. The equality of VoIP calls is dependent on the codec used.

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

Downdate

Reset of the telephone to the previous firmware version.

DTMF

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

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

HOST

Component of a data processing system that manages larger application programs and data volumes and makes them available to lower-order servers and clients.

HTTP

HTTP

Hypertext Transfer Protocol Secure – communication protocol for tap-proof data transfer with encryption within the World Wide Web.

ICE

Interactive Connectivity Establishment is used when two nodes must communicate as directly as possible, over the Internet, but the presence of NATs and firewalls makes it difficult for them to do so. ICE uses the STUN (Session Traversal Utilities for NAT)- and TURN (Traversal Using Relays Around NAT) protocols to establish a connection.

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

LED

Light emitting diode - electronic device similar to a lamp and used for displays (also multi-coloured).

LLDP

Link Layer Discovery Protocol – the protocol IP phones use to collect and query device-specific information from devices directly connected in the network.

LLDP-MED – LLDP software upgrade that supports special VoIP apps.

MAC

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 unique and can be controlled without any problems and detected by the network 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 through 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 licenses

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

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).

Prefetch

The loading of memory contents before a requirement for them has become obvious. When the requirement actually occurs, this enables a faster access speed to be achieved.

Using provisioning

Automated 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

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

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.

SIP port

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

Switch

Active network distributor that distributes data packages to a destination defined by an IP address among the different segments of a network.

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 are implemented with TCP, e.g., HTTP (WWW), SMTP/POPS (e-mail), etc.

TLS

TLS

ransport 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) – protocol 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, e.g., for the DNS (Domain Name Server).

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

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

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. In this case, digital voice data is sent as IP packets from 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. To do this, use your name and address data to register on the provider's website. After that, you will be assigned one or more telephone numbers that can be reached from the land line and the Internet, and also an account with a username and password. The registered connection usually becomes active within a few minutes and can be used very soon after that.

VoIP address

VoIP address

VoIP telephone number plus domain, separated by the @ character:
<subscriber>@domain.

VoIP provider

VoIP provider

Internet service provider offering internet telephony (VoIP, Voice over Internet Protocol).

VPN

A VPN (Virtual Private Network) integrates distant or neighbouring networks (LAN) into your own network via a VPN tunnel. The tunnel serves as a shell in which the data is embedded and transported from one network to the other.

Dial preparation

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 . 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	Computer-aided telephony
DDI	Direct Dial-In	Extension
DECT	Digital Enhanced Cordless Telecommunications	Digital radio telephone network
DHCP	Dynamic Host Configuration Protocol	Protocol for assigning the network configuration to network clients
DNS	Domain Name Service	
DSL	Digital Subscriber Line	Digital subscriber connection
DTMF	Dual Tone Multi Frequency	Dual TMfrequency
ESMTP	Simple Mail Transfer Protocol	An integral part of e-mail, extended SMTP
HTML	Hypertext Markup Language	Defines the structure of a website

Abbreviations

HTTP	Hypertext Transfer Protocol	Hypertext transmission protocol
IMAP	Internet Message Access Protocol	Enables online access to an e-mail inbox (live access)
IP	Internet Protocol	Internet Protocol
Ipssec	Internet Protocol Security	Encryption extension of the Internet Protocol (IP)
IPv4	Internet Protocol version 4	
IPv6	Internet Protocol version 6	
ISDN	Integrated Services Digital Network	Digital network with integrated services
LAN	Local Area Network	Local network
LDAP	Lightweight Directory Access Protocol	Protocol for easy access to directory server
LED	Light-emitting diode	Light emitting diode
MAC	Media Access Control	Physical address of a network interface
NAT	Network Address Translation	
NTP	Network Time Protocol	
PBX	Private Branch Exchange	Private PBX
PoE	Power over Ethernet	

Abbreviations

<u>POP3</u>	Post Office Protocol, Version 3	
<u>RTP</u>	Real-Time Transport Protocol	
<u>SIP</u>	Session Initiation Protocol	
<u>SIPS</u>	Session Initiation Protocol Secure	
<u>SLAAC</u>	Stateless Address Autoconfiguration	Process for automatically and statelessly configuring IPv6 addresses on a network interface.
SMTP	Simple Mail Transfer Protocol	Protocol that is used to exchange e-mails in computer networks
S RTP	Secure Real-Time Transport Protocol	
SSL	Secure Sockets Layer	Most widely used security protocol, provides a secure channel between two computers working over the Internet or an internal network
<u>STUN</u>	Simple Transversal of UDP over NATs	
<u>TCP</u>	Transmission Control Protocol	

Abbreviations

<u>TLS</u>	Transport Layer Security	
<u>UDP</u>	User Datagram Protocol	
<u>URI</u>	Uniform Resource Identifier	
<u>URL</u>	Uniform Resource Locator	Uniform Resource Pointer
USB	Universal Serial Bus	
<u>VLAN</u>	Virtual Local Area Network	
VMB	Voice Mailbox	voice mailbox
<u>VoIP</u>	Voice over Internet Protocol	
<u>VPN</u>	Virtual Private Network	
<u>XML</u>	Extensible Markup Language	