Operator´s Manual

for the User

ISDN and VoIP PBX Systems

COMmander® Business
COMmander® Basic.2
COMpact 5010 VoIP
COMpact 5020 VoIP

Auerswald®
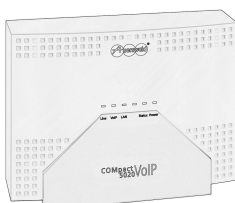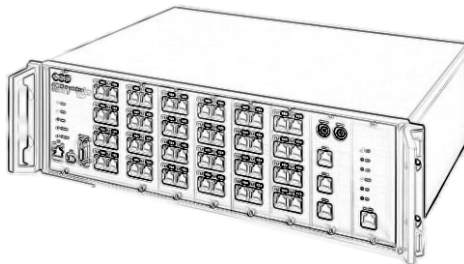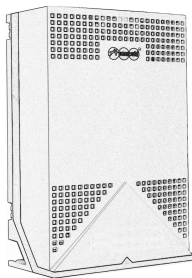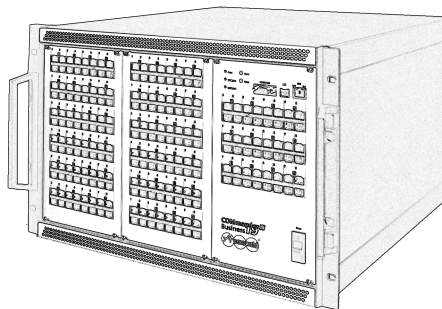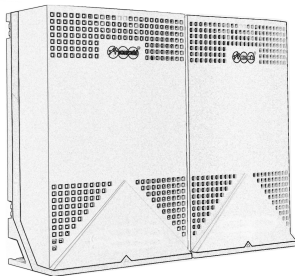
Abbreviations used in this Manual

CF   Call Forwarding

DDI   Direct Dialling In number in case of a PTP connection (**D**irect **D**ialling **I**n)

DTMF **D**ual **T**one **M**ulti **F**requency dialling method

GSM Worldwide mobile phone standard (**G**lobal **S**ystem for **M**obile Communications)

MSN Multiple Subscriber Number in case of a PTMP connection (**M**ultiple **S**ubscriber **N**umber)

NT   Network termination unit for the basic connection (**N**etwork **T**ermination)

PD   **P**ulse **D**ialling method

VoIP   Internet telephony, voice transmission in IP networks (**V**oice **o**ver **I**nternet **P**rotocol)

Symbols used in this Manual

Warning	This is a warning symbol to prevent damage to persons by dangerous electric voltage.
Attention	This is a warning symbol to prevent property damages.
Important	This symbol marks possible misapplication or circumstances that may cause functional restrictions or interferences.
Advice	This symbol signals additional advice and tips.
T-Net	Function is also executable with an existing T-Net key/menu on the analog telephone (see also chapter *Analog T-Net-Telephones* on page 10).
ISDN	Function is also executable with an existing function keys (or menu) on the ISDN telephone (see also chapter *ISDN Telephones* on page 10).

Pictograms used in this Manual

The symbols or pictograms displayed in the following table are used in this manual in order to show common procedures during telephoning and configuration or requesting certain functions via telephone (enquiry).

	Hang up the receiver.		Pick up the receiver.
	A telephone is ringing.		You are hearing a tone, described in the corresponding chapter in more detail.
	Put the receiver next to the telephone.		Make a call. If you start the call yourself, you will hear the ringing tone (ringback tone) for some time.
	Conference.		Query (one call partner is waiting in the background and is hearing the Music on Hold).
	Dial number of the door terminal.		Conversation with 3rd call partner (two call partners are waiting in the background and are hearing the Music on Hold).
	Dial 2- to 6-digit project number.		Dial the number of the audio output.
	Enter the number of the configuration.		Dial one of your own external telephone numbers.
	Dial number of the relay.		Dial internal telephone number or subscriber's telephone number.
	The door bell is ringing.		Dial external numbers or numbers that are to be dialled via exchange line.
	Press the hook key on the handset.		Dial PIN.
	Switch the player on.		Enter the time.
	Press star key.		Enter the date.
	Press hash key.		Dial number within the indicated range. (in this case numbers from 1 to 7).
	Dial a fixed digit (e.g. 1).		Query with FLASH key (in case of DTMF telephone) or Query key or menu selection (in case of an ISDN telephone, see manual of this telephone).

Accessory and Service components
These are available at your authorized dealer or in the Internet shop distriCOM at http://www.districom-online.de (only shipping in Germany).

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View and change your Settings via Web Interface 55

Content

Dear Customer!

This manual describes in all details the use of the PBX.

This manual sorts explanations according to certain question types. Supposing the telephone rings in the room next to you and you would like to take the call, the will surely help you. In order to get certain information quickly and carefully directed, the manual will offer you different helps and guide lines:

■ The table of contents on gives you an idea of content and organization of the operating manual.
■ The index on helps you to find certain text portions for a certain term.
■ In the texts you will be referred to other chapters or pictures with the help of cross references.
■ The headlines on each page remind you in which chapter you are at the present. On the left side of the pages the headlines of the actual chapter will be repeated. On the right side the headlines of the paragraph will be repeated.

When you read this operation instructions probably the PBX has already been installed, started and absolutely configured to your requirements. In this case please take a little bit of time and read the instruction of this manual with attention. Then simply try some of these functions and familiarize yourself with the PBX.

If your requirements change in one way or another so that some settings need to be changed, please contact your authorized dealer. Changes can be done via an existing external telephone connection (remote programming).

If you like to extend your PBX with additional modules or if you like to execute other settings, please instruct your supervisor to do these operations. The same is recommended if your PBX has not been configured and has not been put into operation.

Important

Unintended use may cause e.g. functional restrictions or interferences, the destruction of the device or in a worst case scenario damage to persons.

– *Read the manual carefully and store it for later reference.*
– *Additionally pay attention to the information about guarantee, service, environment, CE compliance and conformity in the **enclosed flyer** „Conditions of guarantee, Information service"*
– *The device described in this manual is made for the indicated use only. If you are not sure about the intended purpose of the product, please contact your dealer.*

Security Advice

Warning

*Touching the voltage carrying conductors or the telephone connections may cause an electric shock **dangerous to life**. Also individual modules may carry dangerous ringer voltages during operation.*

– *The case may only be opened by the **authorized dealer**[1].*
– ***Installation work** inside the open case as well as **maintenance services** involving the keys inside the case are only allowed to be executed by the **authorized dealer**[1].*
– *Disconnect the **power plug** of PBX (and perhaps also the accessory) from the **230 Volt mains socket** before opening the case in any case.*
– *The mains socket has to be **near the PBX** and **freely accessible at any time**.*

Warning

*Liquids entering the case may cause an electric shock **dangerous to life**.*

– *Pay attention when **cleaning** the case to prevent liquids from entering the case.*

Warning

*Touching defective connection cables may cause an electric shock **dangerous to life**. Damages to the case and the PBX itself may also be dangerous to life.*

– *The mains cables of the electric devices and the connection cables must regularly be **checked** for damages. If you discover damages, the concerning cables must be **replaced**.*
– ***Replace damaged components** (e.g. components of the case) immediately.*
– *Use **original components only**. Otherwise the device may be damaged or security and EMC regulations may be violated.*
– ***Repairs** may be made by a **specialist only**. Talk to your authorized dealer or to the vendor directly.*

Important

Mechanical loads and electromagnetic fields may influence the operation of the PBX.

– *Please avoid mechanical stress (e.g. vibrations) and the close neighbourhood to devices that radiate electromagnetic fields or interfere with these units (e.g. radios, HAM-radio installations, mobile telephones, DECT base stations, etc.).*
– *The device may not be exposed to direct sun light. The unit must be protected against splashing water and excessive dust.*

Important

Defective connection cables or short-circuits of other devices in the home may take also the PBX out of operation.

– *If a separate electric circuit was provided for the 230V connection of the PBX do not use it for other devices.*
– *Avoid damages to the connection cables e.g. when moving furniture.*

[1] Authorized dealer: These are persons that are trained for this purpose (e.g. certified electricians). For installation work at the COMmander Business they also have achieved an authorization through a manufacturer training. They must have the necessary knowledge about the work in an area with potentially hazardous voltage. They must also have the knowledge about the latest electrical safety standards and requirements.

In a PBX among other things personal data are processed subject to data privacy. These are numbers stored in the call data management or short messages (SMS) stored in the system telephones.

Important

In addition to this PBX systems may be attacked by dialler programs that enforce Internet connections via expensive dial-in numbers.

In general there is no one hundred percent protection against abuse of PBX functions. Please observe that a protection against abuse is only granted if ...

... unauthorized persons have no access to the PBX and its programming.

... the available authorizations (programming authorization via internal S_0 port, programming authorization, exchange line authorization, Call Restrictor etc.) are used reasonable.

... all options to assign passwords are consequently used. A responsible use of passwords is essential for the protection against abuse. Do not transfer passwords to unauthorized persons e.g. on a notepad.

... the access to data media e.g. backup discs by unauthorized persons is blocked. Destroy un-needed data media. Make sure that no paper remains in the public access area.

Additional advice against abuse may be found in the paper of the Bundesamt für Sicherheit in der Informationstechnik: „Sicherer Einsatz von digitalen Telekommunikationsanlagen" in the Internet under http://www.bsi.de/literat/tkanlage/6001.htm.

Usage and Functionality

The PBX systems *COMpact 5010 VoIP* and *COMpact 5020 VoIP* enable the simultaneous use of available internal terminals on different telecommunication networks. With the PBX systems a connection to the Internet (VoIP) as well as to the digital (ISDN basic connection) and/or analog telephone network is possible.

The so-called terminals may be system telephones, ISDN devices as well as analog devices. Thanks to functions like e.g. Short-Code Dialling, Conference, splitting and internal free of charge connections the PBX makes the daily telephone communication simple, comfortable and time saving. Additional to the telephoning the PBX offers numerous functions such as call charge recording.

Due to the integration of the PBX into a local network (LAN) the installation of special applications on the PC is no longer necessary because the configuration manager is contained in the integrated webserver and is automatically included with an update of the operation firmware of the PBX.

Besides this the webserver allows the comfortable management of the call data, telephone book entries, wake-up times, call allowance accounts, the internal Music on Hold and the data for the Least Cost Routing by the operator or user.

The scope of functions described here is only completely usable with a professional installation and a correct configuration of the PBX and the connected network (LAN).

Important

Please ask your network operator about the availability of some ISDN service attributes. Some of these functions may be available for an extra fee.

For some functions a release via Auerswald Upgrade Center is necessary.
COMmander Business and COMmander Basic.2: The release can only be done by a certified authorized dealer. Only he is able to get the functions and ports via the Auerswald Upgrade Center.

There may be some incompatibility in combination with terminals and devices of other vendors that adversely influence the usability of functions.

For the first operation of the COMmander Business the so-called Startup Dongle is absolutely necessary. The Startup Dongle is only available[2] to authorized dealers who passed the qualification seminar Q3 and the following knowledge test successfully.

Functions and Features

- Up to 8 (COMpact 5010 VoIP, COMpact 5020 VoIP, COMmander Basic.2) or 10[3] (COMmander Business) configurations are switchable manually or automatically switchable
- Integrated webserver (embedded Linux), administration via Ethernet, S_0 port and USB
- DECT integration with system telephones *COMfortel DECT 900*
- Group/team functions with different ringing variants (all, linear, constructed, rotating)
- Waiting Field, usable with keys on system telephones *COMfort 2000 plus*[4] or *COMfortel 1500/2500*[5].
- „Text before answering" always or on busy (automatic Waiting Loop)
- Up to 10 Automatic Receptions for the automatic transfer of external callers [3]
- Call Parking with parking zones
- Boss/secretary function with system telephones *COMfort 1000/1200/2000 plus*[4] or *COMfortel 1500/2500*[5] with flexible boss/secretary assignment
- Hotel function with reception and room telephones [3]
- Call Through internal and external [3]
- CTI – computer supported telephony with system telephones *COMfort 1200/2000 plus*[4] and *COMfortel 1500/2500*[5]

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[3] For the function itself or an expansion of the function a release via Upgrade Center is necessary.

[4] The system telephones COMfort 1000 /1200 /2000 plus need the firmware version 2.3A for operation with the COMmander Basic.2 and a firmware version better than 2.3A for operation with the COMpact 5010/5020 VoIP. If you like to connect an older system telephone COMfort 1000 /1200 /2000 plus to the PBX, perform a firmware update of the telephone first (possible on the PBX systems COMpact 2204 USB, COMpact 2206 USB, COMpact 4406 DSL, COMpact 4410 USB, COMmander Basic and COMmander Business).

[5] The system telephones COMfortel 1500 /2500 need the firmware version 3.2D for operation with the COMpact 5010/5020 VoIP. If you like to connect an older system telephone COMfortel 1500 / 2500 to the COMpact 5010/5020 VoIP, perform a firmware update of the telephone first (possible on the PBX systems COMpact 2204 USB, COMpact 2206 USB, COMpact 4406 DSL, COMpact 4410 USB, COMmander Basic , COMmander Basic.2 and COMmander Business).

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[2] The Startup Dongle is available for the authorized dealer for an unlimited time, but remains property of Auerswald.

- CTI – computer supported telephony via LAN TAPI[3]
- Telephone numbers (10-9999) freely selectable for internal sub-scribers, groups, short-code dial numbers etc.
- Number-to-name function out of the telephone book of the PBX for system telephones [6] as well as special analog telephones (CLIP alphanumeric)
- Cost control by 6 different types of exchange line authorizations, Call Restrictor, Call Deblocker and special Short-code Dial authorization as well as by creating charge allowance accounts
- Least-Cost-Routing[3] with Soft-LCR easy and Soft-LCR 4.0[7]
- Control of the call charge on the PC or on the telephone (AOCE or AOCD are necessary); metering pulse generation for all analog telephones
- Comfortable call data management via integrated webserver; registration of up to 6.000 (COMpact 5010/5020 VoIP) , 9.000 (COMmander Basic.2) or 18.000 (COMmander Business) call data sets in a power failure safe call data memory[3]
- Online name search
- Private/business and project related[3] settlement of calls
- Number presentation to the caller or to the called person is configurable
- Dialling assistance by power failure safe short-code dial memory or configuration of direct exchange line telephones
- Wake-up and time switching functions by internal clock and automatic summer/winter time switching
- Music on Hold, internal (also loadable as wave file[8] into the PBX)
- Different ringer rhythms to differ the calls
- Protection against unauthorized programming and telephoning by password (PINs) and programming interdiction
- Room monitoring from internal and external
- Ideal reachability by Follow-me, Call Forwarding internal and external, Call Waiting and Busy-on-Busy
- Security in emergency and urgency situations by baby call/hotline, emergency numbers, emergency priority switching and break-through of call protection
- Call forwarding, alternation, conference via the 2nd channel
- Call protection against certain callers
- Exchange line reservation, call take over and transfer to external
- Internet telephony (VoIP) with complete system integration (e.g. automatic routing, call distribution, exchange line authorization etc.)
- VoIP and GSM routing
- Data transfer of up to 57.600 bps (V.90) to analog extensions
- Automatic detection of the dialling method on analog extensions
- Automatic Flash time detection on the analog extensions
- PBX firmware update via PC and automatically (only COMpact 5010/5020 VoIP and COMmander Basic.2)
- LCR update via telephone, PC and automatically
- Remote programming via exchange line

T-Net-Functions of analog Telephones supported by the PBX

If you use a T-Net compatible analog telephone, these functions will be able to be executed via the existing function keys.

- Accept, refuse Call Waiting
- Alternation
- Start conference with 3 persons, finish
- Start Query, finish
- Transfer
- Configure Subscriber Call Forwarding
- Configure connection without dialling (baby call)
- Start recall on busy, delete
- Suppress telephone number presentation once
- Number (CLIP) and name (CNIP) presentation

ISDN Features supported by the PBX

- Call Waiting (CW)
- Conditional suppression of the own telephone number presentation (CLIR)
- Call Forwarding on busy (CFB), if nobody takes the call (CFNR), always (CFU)
- Call Deflection (Partial Rerouting; CD (PR))
- Transmission of the connection charges during (AOCD) and at the end (AOCE) of the connection
- Recall on busy (CCBS) and on no reply (CCNR)
- Number (CLIP) and name (CNIP) presentation on system telephones, internal ISDN units and analog telephones (special analog terminals are necessary that support CLIP)
- Redirecting Number (RgN)
- Presentation of customers specific telephone number information on the Point-to-Point connection (CLIP no screening)
- Number presentation incoming (COLP)
- Number presentation suppression (COLR)
- X.31 on the internal S_0 port (X.25 in the D channel)[3]

☞ *Please ask your network operator about the availability of some ISDN service attributes. Some of these functions may be available for an extra fee.*

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[6] *COMfort 1000/1200/2000 plus[4], COMfortel 1500/2500[5], COMfort DECT* (only COMmander Business and COMmander Basic.2) and *COMfortel DECT.*

[7] The support of this function on the PBX systems COMmander Basic.2 and COMmander Business will only be available via an update at a later date (firmware version 2.0A of the PBX).

[8] Standard Windows format for audio files.

Differences using various Telephones

System telephones and ISDN telephones as well as analog telephones with dual-tone multi-frequency signalling (DTMF) or with pulse dialling method (PD; only with functional restrictions) can be used with the PBX.

There are some differences when using or programming them. Familiarize yourself - especially with ISDN telephones - with the use of your telephone (see manual of the telephone).

Analog Telephones (Pulse Dial and DTMF)

If you are already in a conversation condition with another subscriber (internal or external), you will have to press the FLASH key (signal key, R-Key) in case of a DTMF telephone before you are dialling a digit e.g. for Call Forwarding. In this manual the FLASH key is represented by the symbol ⊕ℝ.

The flash key does not exist on an PD telephone. Besides this the keys ✳ and # do not exist either or no function has been assigned to these keys. As these keys are necessary for most type of calls as well as for the settings (programming), these function **cannot be operated** with PD telephones! They can only start calls and accept them. If your telephone offers both dialling methods, you have to re-program it to DTMF.

Analog T-Net-Telephones

With some of the analog DTMF telephones some of the T-Net functions (e.g. Call Forwarding) are assigned to special menus or function keys. If you use such a telephone as an internal subscriber telephone, you will be able to use this comfortable operation also for some functions of the PBX. These functions are marked with the T-Net-arrow ⊕ T-Net⟩. If you find this advice and you like to use the T-Net functions of your telephone, please read the manual of your telephone. Please pay attention to the preceding „0" (exchange line access digit) if you enter the telephone number. Instead of the „announcement of the public exchange" you will hear the acknowledgement tone for a successful programming.

ISDN Telephones

In order to be able to operate your ISDN telephone, you will have to get familiar with its functionality. Therefore it is necessary to read the manual of the telephone and to read the ISDN telephone help files of Auerswald provided that your telephone is listed there (available on the Auerswald CD and the Auerswald homepage). It is absolutely necessary to know with which key or with which menu a Query can be started (e.g. hold key or R-key). This function is required if you see the following function symbol ⊕ℝ in the manual. In some of the functions you will have to rely on the menus/function keys of the telephone. „Conference", „Alternation", „Accept/refuse waiting Call", „Finish Query" and „finish a Query on busy target" belong to these functions. Please pay attention to the ISDN advice arrow ⊕ ISDN⟩. The digits to be dialled for analog telephones have to be ignored in this case.

System Telephones

The major portion of PBX functions can be handled with all connected telephones as described in this manual. With the system telephones *COMfortel 1500/2500* as well as *COMfort 1000/1200/2000 plus* the use is much more comfortable because the most important functions can be controlled via menu (see advice). This operation is described in the manual of the telephone. Some of the described PBX functions can only be used with the system telephones as stated in the description.

Representation of Tones and Ringer Rhythms

Representation of the tones:

Time in seconds	0	1	2	3	4	5	6	7	8	9

Permanent dial tone (425 Hz)

Extension dial tone (425 Hz)

Confirmation tone (425 Hz)

Busy tone (425 Hz)

Ringback tone (425 Hz)

Special tone 1 (425 Hz)

Special tone 2 (425 Hz)

Knocking (Call Waiting) (425 Hz)

Changing tone (697/1633 Hz)
Call Through and Remote Programming
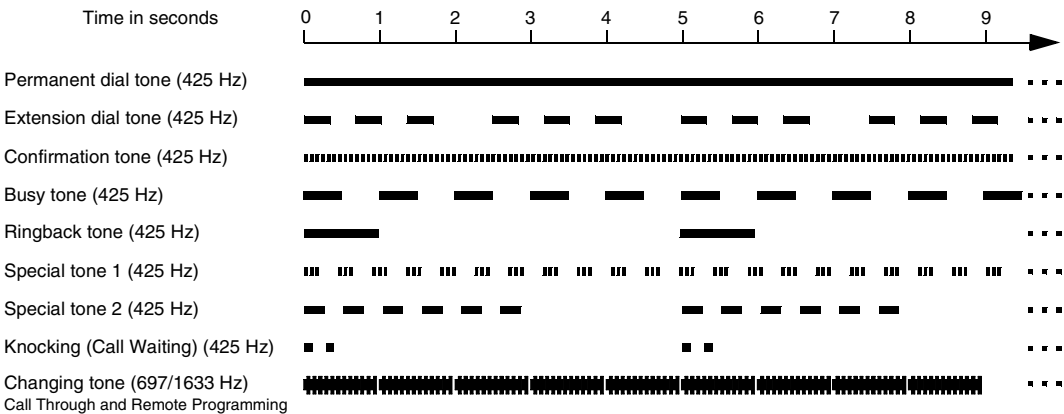
Representation of the Ringer Rhythms (with analog telephones):

Time in seconds	0	1	2	3	4	5	6	7	8	9

1 x long

3 x short

Special rhythm 1

Special rhythm 2

Special rhythm 3

Special rhythm 4

Special rhythm 5

Special rhythm 6

Alarm Call

11
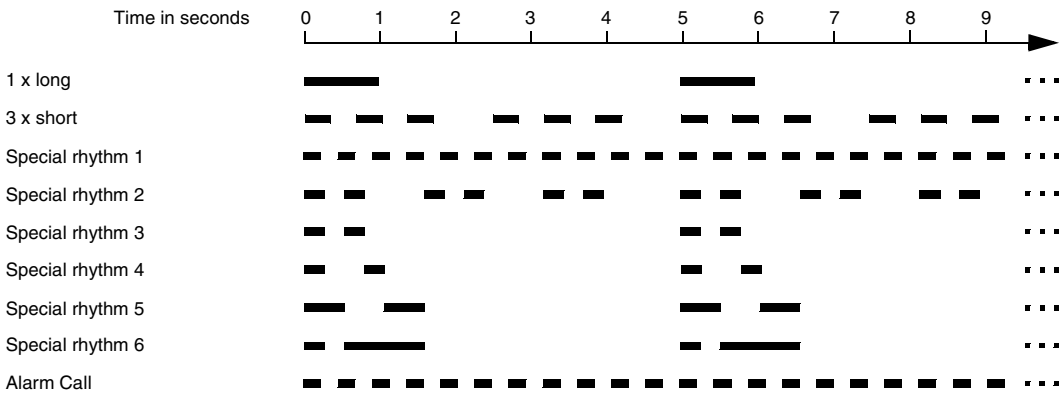
React to an incoming Call

In case of an analog telephone the internal and external calls can be differed by differentiated ringer rhythms (e.g. if there is no display to show the telephone number).

Pickup: If you hear another internal telephone ringing, you will be able to take this call with your own telephone or with the telephone next to you. In this case you have to use the „Pickup" function. To be able to do this you take the call to your telephone by dialling a sequence of digits.

Takeover: If your e.g. answering machine (or your modem) takes your call, you will be able to take it over with a function named „Takeover". You dial some digits on your telephone and then you are connected to the caller. The answering machine gets the busy tone.

Your Telephone rings – take over the Call

telephone rings

conversation

Advice — *If this call is an initiated call back, you will immediately hear the ringing tone after picking up the receiver. This will signal to you that the other subscriber is currently being called.*

Other internal Telephones ring – take Call for an individual Telephone (Pickup)

another telephone

your telephone

0 6

internal telephone number* of the ringing telephone

conversation

* Internal telephone number of the individual telephone (If you use a direct exchange line telephone for the entry, ** is preceding the telephone number.) or internal telephone number of the group (If you use a direct exchange line telephone for the entry, ** is preceding the telephone number.)

Important — *Depending on the assigned authorization of your telephone you can do a pickup for any telephones, for telephones within your group or you cannot do any pickup (see chapter View and modify the Properties of your own Subscriber Port on page 58).*

You can only execute a pickup for an external call if the necessary call authorization mode was configured for your telephone (see chapter View and modify the Properties of your own Subscriber Port on page 58).

An Answering Machine already accepted a Call (Takeover)

your telephone

0 6

internal telephone number* of the answering machine with the call to be taken over

taken over call

* Internal telephone number of the individual answering machine (If you use a direct exchange line telephone for the entry, ** is preceding the telephone number.) or internal telephone number of the group (If you use a direct exchange line telephone for the entry, ** is preceding the telephone number.)

Important — *To perform this function the takeover has to be released on the answering machine (within the group or on each individual telephone).*

React to an incoming Call while Knocking

If you hear a tone that repeats itself again and again - the knocking tone - during a call, an external subscriber is trying to reach you or you are getting a door or alarm call. The external subscriber hears the ringing tone.

Accept the knocking call: To talk to the knocking caller there are two options. First: You take the knocking caller and finish the current call at the same time. Second: You start a second call (query) with the knocking person. Then the current call partner is held in the background. The options you have later can be learned in the chapter *Make a Query Call* on page 18.

Refuse waiting caller: If you do not like to talk to the waiting caller, you are able to ignore the waiting call or to refuse it by dialling a sequence of digits. The waiting caller will hear the busy tone then (if no other telephones ring).

Important
Incoming calls are only signalled, if the function Knocking/ Call Waiting has been activated for this telephone (see chapter View and modify the Properties of your own Subscriber Port on page 58).

Take the knocking Caller and terminate the current Conversation

conversation   knocking tone   ⇕R   1   new call

Advice *If you have already a Query call when it knocks, at least one of both calls has to be finished first.*

⇕T-Net *If you have an analog telephone where you can execute the „take a waiting call" function via T-Net function key/ menu, you will be able to use this comfortable operation, too.*

⇕ISDN *If you have an ISDN telephone or a system telephone the „take a waiting call" function will be executed via an existing function key or via menu (e.g. with „take call"; see manual of the telephone).*

Take the knocking Caller and put the current Conversation (Query) on Hold

conversation   knocking tone   ⇕R   2   Query call

Advice *If the waiting call is an alarm call, the currently existing call will be terminated when accepting the waiting alarm call. How to accept an alarm call is described on p. 30.*

If you have already a Query call when it knocks, at least one of both calls has to be finished first.

⇕T-Net *If you have an analog telephone where you can execute the „take a waiting call" function via T-Net function key/ menu, you will be able to use this comfortable operation, too.*

⇕ISDN *If you have an ISDN telephone or a system telephone the „take a waiting call" function will be executed via an existing function key or via menu (e.g. with „take call"; see manual of the telephone).*

Refuse waiting caller

conversation   knocking tone   ⇕R   0   back to the current call

⇕T-Net *If you have an analog telephone where you can execute the „take a waiting call" function via T-Net function key/ menu, you will be able to use this comfortable operation, too.*

⇕ISDN *If you have an ISDN telephone or a system telephone the „take a waiting call" function will be executed via an existing function key or via menu (e.g. with „take call"; see manual of the telephone).*

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Call Somebody

Internal: Internal calls are free of charge.

Knock internally: If the internally called subscriber is busy, you can knock on his phone after a short waiting (if knocking is allowed on his phone).

External: Before you dial an external telephone number, you have to enter the exchange line digit „0" (exception: direct exchange line telephone).

Request an exchange line (transfer of an exchange line access): (only in combination with the system telephones *COMfort 1000/1200/2000 plus* or *COMfortel 1500/2500*). If the telephone you like to start an external call from does not have the necessary exchange line authorization, you can call a system telephone especially configured for this and request an exchange line access. On the called system telephone the key „Transfer of an exchange line access" has to be pressed during the connection and the receiver has to be hung up. You will hear the confirmation tone and can also hang up. Then you can start a single external call.

Short-code Dialling: The access by name to the telephone book of the PBX is reserved to the system telephones. On each other telephone you can use telephone numbers with a 2-digit to 4-digit short-code dialling number assigned in the telephone book of the PBX by dialling these short-code numbers.

Call without presentation of the calling number: If you like to prevent that your next call partner sees your telephone number on his telephone, you will be able to start an external call with the here stated digit order. If you start an external call as described here, the presentation of your calling number to your call partner will be restricted for this call.

Separation of private and business calls: The private exchange line access enables a separated registration of business and private calls for individual employees. Calls started with the private exchange line access will get a special code in the call data memory.

This way the cost can be charged to the employee.

If you like to make a private call from your work place, you need a user PIN assigned to your connection. All calls started with the private exchange line access and this PIN are assigned to you in the call data management. This is also valid for calls that you make from another internal telephone (e.g. your colleague's).

With a special authorization you can also make private calls without the entry of the user PIN from your own telephone.

Project assignment: The project assignment enables the assignment of an external call to a certain project/client (e.g. within a lawyer's office). In the view of the call data management program the charges as well as the time expense can separately be listed for the different projects/clients. The project numbers may be invented while starting the outbound call.

Present certain MSN: To be able to allocate individual calls to certain areas for a later call data evaluation, you can make external calls with the presentation of a specific MSN.

Start a call via VoIP account: If you like to make a call via a selected account that has been previously configured you will need the account number.

Call an internal Telephone

internal telephone number*   conversation

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*   Internal telephone number of the individual telephone (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the telephone number.)
     or internal telephone number of the group (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the telephone number.)

Knock on a busy internal telephone

busy tone   Wait for 5 seconds   ringing tone   conversation

Call an external Number

external telephone number*   conversation

---

*   Exchange line access number 0 + external telephone number (If you use a direct exchange line telephone for the entry, the exchange line access number 0 is left out.)
     or short-code dialling number (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the short-code dialling number.)

Request an exchange line (transfer of an exchange line access)

	internal telephone number*	conversation	Call partner presses the key „exchange line connection"	acknowledgement tone			external telephone number**	conversation

*   Internal telephone number of the individual system telephone (If you use a direct exchange line telephone for the entry, ** is preceding the telephone number.) or internal telephone number of a group of system telephones (If you use a direct exchange line telephone for the entry, ** is preceding the telephone number.)

**   Exchange line access number 0 + external telephone number (If you use a direct exchange line telephone for the entry, the exchange line access number 0 is left out.) or short-code dialling number (If you use a direct exchange line telephone for the entry, ** is preceding the short-code dialling number.)

Start external Calls without Presentation of your calling Number

	✳ 3 1 #	external telephone number*	conversation

*   Exchange line access number 0 + external telephone number (If you use a direct exchange line telephone for the entry, the exchange line access number 0 is left out.) or short-code dialling number (If you use a direct exchange line telephone for the entry, ** is preceding the short-code dialling number.)

Important   *You can use this function only if the ISDN service „Calling line identification restriction (CLIR)" is available and activated by your network provider.*

ISDN   *For some of the ISDN telephones and for the system telephone COMfort 1000/1200/2000 plus and COMfortel 1500/2500 you can activate the „Calling line identification restriction*

(CLIR)" via an existing function key or via menu. (see manual of the telephone; perhaps it is called as „deactivate the identification" etc.).

T-Net   *If you use an analog telephone as an internal subscriber phone where a „call without presentation of the calling number" can be started, you will be able to use also this comfortable operation (see manual of the telephone).*

Start a Private Call (Personalized Exchange Line Access) with any telephone

	# # 9 2	User PIN	✳	external telephone number*	Private call

*   Exchange line access number 0 + external telephone number (If you use a direct exchange line telephone for the entry, the exchange line access number 0 is left out.) or short-code dialling number (If you use a direct exchange line telephone for the entry, ** is preceding the short-code dialling number.)

Advice   *Establishing a private call with PIN entry is possible from each internal telephone with the corresponding exchange*   *line authorization. The charges are assigned to the user with help of his user PIN.*

Start a Private Call (Personalized Exchange Line Access) without PIN Entry

your telephone	# # 9 1	external telephone number*	Private call

*   Exchange line access number 0 + external telephone number (If you use a direct exchange line telephone for the entry, the exchange line access number 0 is left out.) or short-code dialling number (If you use a direct exchange line telephone for the entry, ** is preceding the short-code dialling number.)

Important   *For the start of a private call without PIN entry the telephone needs a special authorization (see chapter View and modify the Properties of your own Subscriber Port on page 58). The costs are charged to the telephone in use.*

Start external Call with Project Assignment

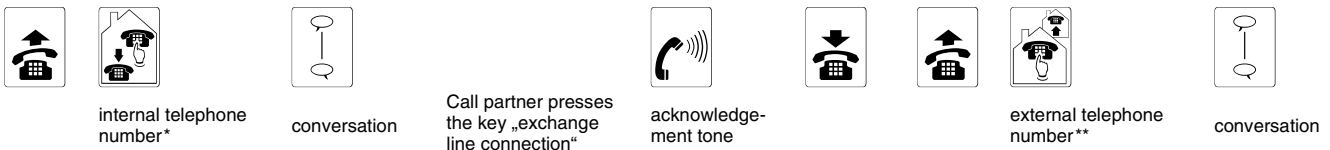|				
📞 #\#93		project number 2- to 6-digit	⍟	external telephone number*	conversation

* Exchange line access number 0 + external telephone number (If you use a direct exchange line telephone for the entry, the exchange line access number 0 is left out.) or short-code dialling number (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the short-code dialling number.)

Important *The project related charging of calls needs a special release by the dealer. If this has not been done, you* *would be able to start calls as described, but the project numbers would not be transferred into the call data.*

External Call with specific MSN

| 📞 #\#96 | own MSN* to be transferred * | ⍟ | external telephone number** | conversation |

* external telephone number without exchange line access number (also in case of the entry with a direct exchange line telephone)

** Exchange line access number 0 + external telephone number (If you use a direct exchange line telephone for the entry, the exchange line access number 0 is left out.) or short-code dialling number (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the short-code dialling number.)

Select a specific VoIP Account for the next external Call

| 📞 | Account number* | external telephone number** | conversation |

* Internal telephone number of the VoIP account (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the telephone number)

** Exchange line access number 0 + external telephone number (If you use a direct exchange line telephone for the entry, the exchange line access number 0 is left out.)

Important *You might wait longer for a connection if you start calls via VoIP.*

Emergency calls via VoIP are currently not supported by all providers. This is affecting the connection to the emergency call center as well as the localisation information of the caller.

Fax sending via Voice over IP is currently not reliable.

Some providers might suggest that Internet telephony is free of charge. The real cost should be checked in the tariff tables of the corresponding provider[9]. The connection to a fixed-line connection is made via gateways (connection computer) so the location of the gateway is important for the call charges. This is especially true for international calls and if the gateway is located in your home country then the cost might exceed the fixed-line cost.

The voice quality and also the reliability of Voice over IP depends on the quality of the used Internet connection in a high degree as well as on the quantity of the current data transfer volume.

For outbound calls via VoIP no callback (CCBS or CCNR) is possible.

An unlimited flatrate will be disconnected every 24 hours by the Internet Service Provider. This will also cause a disconnect of the calls made at that point of time.

Advice *With the system telephones COMfortel 1500/2500 the VoIP access selection can be made comfortably via function key (see manual of the telephone).*

---

[9] Precondition for free of charge calls is a broadband Internet connection with the corresponding tariff (e.g. DSL flatrate) that is chargeable. Calls are only free of charge if they are made with subscribers of the same VoIP provider or the network of a partner. This information is available at the corresponding provider.

Start a Query or reserve an Exchange Line

Recall on Busy: If you hear a busy tone after dialling an internal or external telephone number, it may be that the called telephone is currently busy. If you want to reach the requested call partner without repeated calling, you can start a Recall on Busy. The necessary ISDN feature „Call Completion on Busy Subscriber (CCBS)" will be supported by PBX.

If you have started a recall, you will be recalled by the public exchange (external call)/PBX (internal call) as soon as the other subscriber has finished his current call. If you pick up the receiver then, the other subscriber will be called by the public exchange/PBX. If this one also picks up, a conversation will be established. Then the recall will be deleted in the public exchange/PBX.

Reserve Exchange Line: If you start to hear a busy tone before completely dialling the telephone number, all exchange lines (1st and 2nd B channel of the available external S_0 ports) are currently busy. Now you can reserve a line for later.

If you have started an exchange line reservation as described here, you will be called by the PBX as soon as there is a free line.

If you pick up the receiver during the ringing, you will hear the external dial tone as a sign of a reservation of the exchange line. Now you have to dial the external telephone number only and without Exchange Line Access Number.

Recall on no Reply: If you call an internal telephone, but the called person does not pick up, you will be able to reach him without repeating the call by starting a recall in case of no Reply. The function is possible for internal as well as external calls. The necessary ISDN feature „Call Completion on No Reply (CCNR)" will be supported by PBX.

If you started a recall, you will be called by the public exchange/PBX as soon as the other subscriber has finished his next call. If you pick up the receiver then, the other subscriber will be called also by the public exchange/PBX. If the other one picks up the receiver too, a conversation will be established. Only then the recall is deleted.

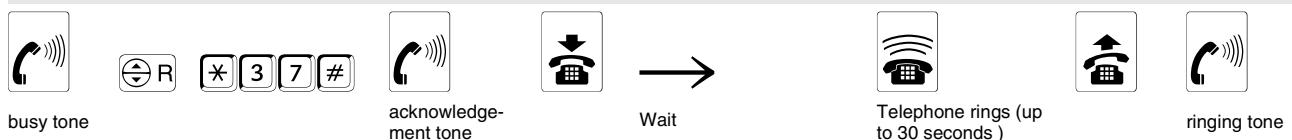### Start Recall on Busy for internal Telephone Call

busy tone   ⇕R ✳ 3 7 #   acknowledgement tone   Wait   telephone is ringing   ringing tone

☞ **Advice** *On the system telephone COMfort 1000/1200/2000 plus or COMfortel 1500/2500 the „Recall on Busy" is started via menu (see manual of the telephone).*

⇕ T-Net *If you use an analog telephone as an internal subscriber telephone and you can start a „Recall on Busy" via T-Net function key/menu, you also will be able to use this comfortable operation (see manual of the telephone). Instead of an announcement of the public exchange you will hear the acknowledgement tone.*

Starting Recall on Busy via Public Exchange for external Connection (CCBS)

busy tone   ⇕R ✳ 3 7 #   acknowledgement tone   Wait   Telephone rings (up to 30 seconds)   ringing tone

☞ **Important** *The technical condition for a recall must be given e.g. the recall to a PBX is not possible with some of the network providers. Also if using a VoIP account for the external call, no callback is possible.*

☞ **Advice** *On the system telephone COMfort 1000/1200/2000 plus or COMfortel 1500/2500 the „Recall on Busy" is started via menu (see manual of the telephone).*

If you do not hear any confirmation tone, the recall request was refused by the public exchange.

It may be possible that the public exchange starts the recall before the subscriber you have called has hanged up because one B channel of his ISDN connection is free.

A recall is tried up to 45 minutes by the public exchange. If the called person did not finish his call until then, the recall will be deleted automatically.

If you do not pick up the receiver in case of a recall in time (After you have been called for 30 seconds), the recall will also be cancelled.
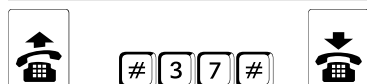
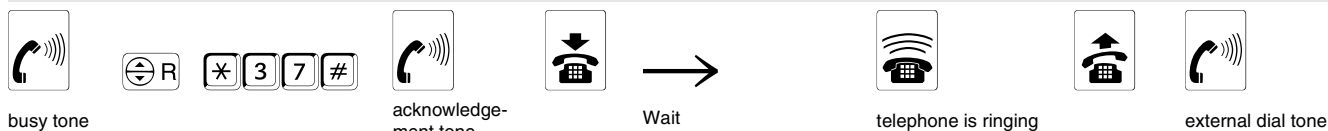⇕ T-Net *If you use an analog telephone as an internal subscriber telephone and you can start a „Recall on Busy" via T-Net*

function key/menu, you will also be able to use this comfortable operation (see manual of the telephone). Instead of an announcement of the public exchange you will hear the acknowledgement tone.

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Delete Callback on busy in Advance

 # 3 7 #

Reserve Exchange Line for the next Call on busy Exchange Lines

   ⇕R ✳ 3 7 #   ⟶

busy tone | acknowledge-ment tone | Wait | telephone is ringing | external dial tone

- -

Advice *In case of an ISDN telephone direct dialling after taking the receiver of the ringing telephone is not possible (instead of the external dial tone you will hear the acknowledgement* *tone). Hang up the receiver and pick it up right after that - now you can dial as usual.*

Start a Recall on no Reply for internal Telephone Calls

   ⇕R ✳ 3 7 #   ⟶

ringing tone | acknowledgement tone | Wait | telephone is ringing | ringing tone

- -

Important *To start a „Recall on no Reply" on ISDN telephones and system telephones or to delete it again, this function **must*** *be supported via function key or via menu of the telephone (see manual of the telephone).*

Start a Recall on no Reply for external Calls (CCNR).

   ⇕R ✳ 3 7 #   ⟶

ringing tone | acknowledgement tone | Wait | telephone is ringing (up to 15 seconds) | ringing tone

- -

Important *To start a „Recall on no Reply" on ISDN telephones and system telephones or to delete it again, this function **must** be supported via function key or via menu of the telephone (see manual of the telephone).*

You can only use this function if the ISDN feature „recall on no reply (CCNR)" is offered by the network provider and has been activated.

The technical condition for a recall must be given e.g. the recall to a PBX is not possible with some of the network providers. Also if using a VoIP account for the external call, no callback is possible.

If you do not pick up the receiver in case of a recall in time (After you have been called for 15 seconds), the recall will also be cancelled.

Advice *If you do not hear any acknowledgement tone, the recall request was refused by the public exchange.*

A recall is tried up to 45 minutes by the public exchange. If the called person did not finish his call until then, the recall would be deleted automatically.

Make a Query Call

Start Query Call: If you like to ask a question to somebody during a call without finishing the conversation, use the Query. The current

conversation is put on Hold in order to call the other subscriber. The 1st call partner is on Hold in the background in the PBX and listens to the Music on Hold.

In order to start a Query you will have to press the FLASH key or R-key first (Exception: pulse telephone; see chapter *Differences using various Telephones* on page 10). Then you will hear the internal dial tone as after picking up the receiver and you can start a call as usual.

Finish the Call in a Query: If you like to call somebody that does not take the call, you normally hang up. But if you do this out of an existing call while you are calling another subscriber for a Query or a Blind Transfer, you will disconnect also the connection to the person waiting in the background. You press the FLASH key or R-key and dial the digit „1" instead to finish the call here.

Alternation: If you started a Query and like to talk to both call partners alternately, you will be able to switch from one to the other by dialling a sequence of digits.

Finish a call out of a Query: You can finish the call with one of your call partners carefully directed - with the one in the background or with the currently active call partner. If you like to announce the finishing of the call to your call partner in advance, you perhaps have to change to the call partner first (alternation).

☞ **Advice** *If you hang up the receiver during a Query call, both call partners will be connected with each other. If one of both call partners hangs up, you will be connected to the other one.*

If you only like to talk to someone in the room, you have to press the Flash key only in case of a DTMF telephone (switch on mute). You will hear the internal dial tone then. Your call partner is on hold in the background and listens to the Music on Hold during this time. In order to continue the call, press the FLASH key again.

If an additional call is signalled during a call (it is knocking in your telephone or another telephone rings), you can also start a Query call with the caller. How to accept/refuse a knocking caller can be learned in the chapter React to an incoming Call while Knocking on page 13. How to do a pick-up after pressing the flash or query key can be learned in the chapter Other internal Telephones ring – take Call for an individual Telephone (Pickup) on page 12.

Start second call (Query Call)

conversation   ⊜R   external telephone number*   Query call

or   internal telephone number**   Query call

---

*   Exchange line access number 0 + external telephone number (If you use a direct exchange line telephone for the entry, the exchange line access number 0 is left out.) or short-code dialling number (If you use a direct exchange line telephone for the entry, ✱✱ is preceding the short-code dialling number.)

**   Internal telephone number of the individual telephone (If you use a direct exchange line telephone for the entry, ✱✱ is preceding the telephone number.) or internal telephone number of the group (If you use a direct exchange line telephone for the entry, ✱✱ is preceding the telephone number.) or internal telephone number of the door (If you use a direct exchange line telephone for the entry, ✱✱ is preceding the telephone number.)

- -

☞ **Advice** *After pressing the Flash or Query key you can also start another type of call (e.g. private call), an InterCom announcement or a pick-up. Exception: During a door call only the dialling of one telephone number is possible.*

⊜ ISDN *On ISDN telephones and on the system telephone the „Query" is started via an existing function key or via menu* (e.g. with „Call2", „Query", „on hold" or „R-key"; see manual of the telephone).

⊜ T-Net *If you use an analog telephone as an internal subscriber telephone, where you can start a „Query call" via T-Net function key/menu, you also will be able to use this comfortable operation (see manual of the telephone).*

The Subscriber called for the Query does not reply – Finish the Call

conversation   ⊜R   external telephone number*   ringing tone   ⊜R   1   back to the current call

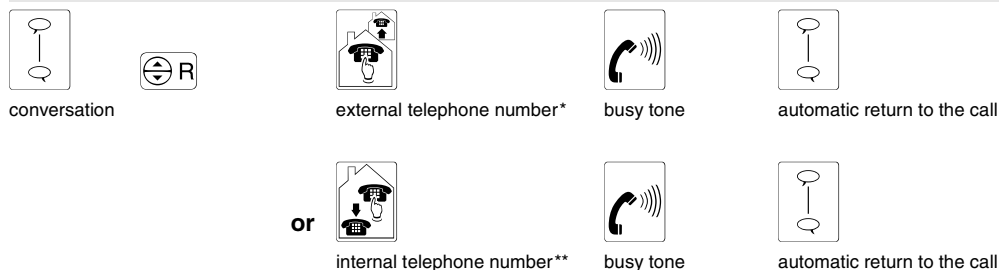**or**   internal telephone number**   ringing tone   ⊜R   1   back to the current call

---

*   Exchange line access number 0 + external telephone number (If you use a direct exchange line telephone for the entry, the exchange line access number 0 is left out.) or short-code dialling number (If you use a direct exchange line telephone for the entry, ✱✱ is preceding the short-code dialling number.)

**   Internal telephone number of the individual telephone (If you use a direct exchange line telephone for the entry, ✱✱ is preceding the telephone number.) or internal telephone number of the group (If you use a direct exchange line telephone for the entry, ✱✱ is preceding the telephone number.) or internal telephone number of the door (If you use a direct exchange line telephone for the entry, ✱✱ is preceding the telephone number.)

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The Subscriber called in a Query is busy - Finishing the Call

conversation   ⊕R   external telephone number*   busy tone   automatic return to the call

or   internal telephone number**   busy tone   automatic return to the call

*   Exchange line access number 0 + external telephone number (If you use a direct exchange line telephone for the entry, the exchange line access number 0 is left out.)
or short-code dialling number (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the short-code dialling number.)

**   Internal telephone number of the individual telephone (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the telephone number.)
or internal telephone number of the group (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the telephone number.)
or internal telephone number of the door (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the telephone number.)

⊕ISDN For the ISDN telephones and the system telephone the „Finish a Query" function will be executed via an existing

function key or via menu (e.g. with „end", „separating", „back" or pressing of the R-key once more; see manual of the telephone).

Talking alternately with both Call Partners (Alternation)

Query (see p. 18)   ⊕R   2   change to the other call partner   Query   ⊕R   2   change to the other call partner   Query

⊕ISDN With ISDN telephones and the system telephone the „Alternation" is executed via an existing function key or via menu (e.g. with „Alternation", R-key" or „call1/call2"; see manual of the telephone).

⊕T-Net If you use an analog telephone as an internal subscriber telephone where the „Alternation" is executed via T-Net

function key/menu, you are also able to use this comfortable operation (see manual of the telephone).

☞ **Advice** You do not need the support of the public exchange for the Alternation of two external call partners. (ISDN service attribute „Alternation" (HOLD)") because the PBX supports the Alternation via the 2nd B channel.

Finish one of both Calls

Query (see p. 18)   ⊕R   0   Disconnect the call in the background   Conversation with the previously active call partner

or   1   Disconnect the current call   Call with the previously call partner on hold
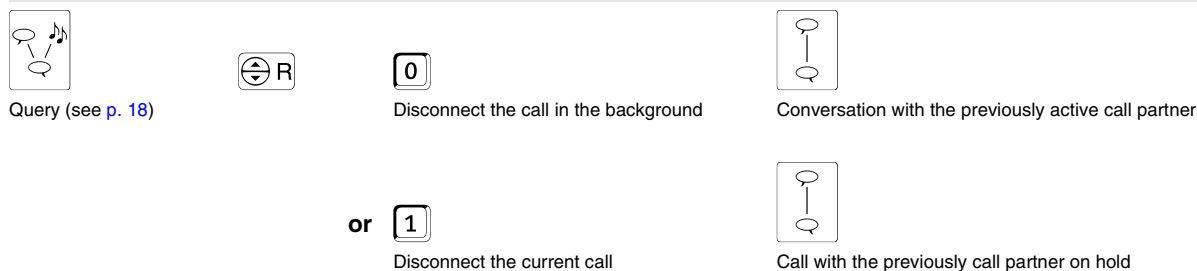
⊕ISDN With ISDN telephones and the system telephone a Query is finished via an existing function key or via menu (e.g. with „separate", „finish" or „end"; see manual of the telephone).

⊕T-Net If you use an analog telephone as an internal subscriber telephone where the „finishing of the active connection" is

to be executed via T-Net function key/menu you can also use this comfortable operation (see manual of the telephone).

Transfer an existing Call

Transfer from of a Query (Transfer with announcement): To transfer a call you start a Query first (see chapter *Make a Query Call on page 18*), announce the call and then you connect both call partners. If you started a Query and want to connect the new call partner with the one on hold in the background, this can be reached by hanging up the receiver or - if you like to continue to phone - by dialling a digit sequence.

Blind Transfer (Transfer without announcement): If you like to transfer an external call to another internal telephone, you do not have to wait until the subscriber called for the Query takes the call, but you can hang up the receiver already during the ringing. The internal telephone is ringing furthermore.

Call Parking (park an external call internally): Thanks to this function you can put a caller to be transferred in a parking position so that the requested call partner will be able to take the call with another internal telephone.

You have to transfer the call to a specially defined telephone number for this function and put the call into an internal parking zone this way. Now the caller is on Hold in the PBX and is listening to the Music on Hold (holding time can be defined between 1 and 20 minutes in the web interface of the configuration manager COMset). Now you can inform the requested call partner about the waiting caller. This call partner can take the call then by dialling the telephone number that was used as a target for the transfer before.

Waiting Loop: This function offers an indirect transfer of an external call partner to an internal subscriber if this one is busy. The external call partner can be put into the waiting loop. There he is held for up to 3 minutes and is listening to the Music on Hold in the meantime. If the corresponding internal subscriber is not busy any more, he will be called for up to 60 seconds. If he takes the call, he will immediately be connected to the external subscriber. If he does not pick up the receiver, the call falls back to the transferring person.

Transfer from Query

| conversation | | external telephone number* | Query call | hang up |

| **or** internal telephone number** | Query call | hang up |

* Exchange line access number 0 + external telephone number (If you use a direct exchange line telephone for the entry, the exchange line access number 0 is left out.) or short-code dialling number (If you use a direct exchange line telephone for the entry, ** is preceding the short-code dialling number.)

** Internal telephone number of the individual telephone (If you use a direct exchange line telephone for the entry, ** is preceding the telephone number.) or internal telephone number of the group (If you use a direct exchange line telephone for the entry, ** is preceding the telephone number.)

Important *You can only transfer an external call to an additional call partner in this way if the necessary authorization is configured for your phone. (see chapter View and modify the Properties of your own Subscriber Port on page 58).*

A transferred call between two external call partners is limited to a defined period of time. This is for your own security because e.g. an accidental connection to the speaking clock or to the weather forecast may cause a never ending call. The costs for the transferred call will be charged to you by the network provider.

Advice *If you press the Flash or Query key and press the „4" instead of hanging up, you will hear immediately the internal dial tone right after the connection and you are able to start a call again.*

Some ISDN telephones may ring again after hanging up and you are connected to the 1st call partner again after taking the receiver. Check if the „transfer for PBX" is switched on with the help of the user manual of the telephone. If necessary, re-program it.

T-Net *On an analog telephone that can perform „transfer" by a T-Net key/menu, you can also use this comfortable operation (see manual of the telephone).*

ISDN *On some ISDN telephones you can also „transfer" with an existing function key or via menu (see manual of the telephone; sometimes also called „ECT" or „transfer").*

Transfer external Call without Announcement to an internal Telephone (Blind Transfer)

external call	internal number*	wait for the ringing tone	hang up – if the called partner takes the receiver, he will be connected to the external caller

* Internal telephone number of the individual telephone (If you use a direct exchange line telephone for the entry, ** is preceding the telephone number.)
  or internal telephone number of the group (If you use a direct exchange line telephone for the entry, ** is preceding the telephone number.)

Advice If the called subscriber does not pick up, the call will return to your own telephone after 60 seconds (your telephone rings). If you are not picking up this call within 60 additional seconds the call will be disconnected. If your own telephone is busy in that moment, the procedure will be finished already after the first 60 seconds and the external call will be disconnected.

Put the Call into the Internal Parking Zone (Call Parking)

external call	internal number*	No 0-9 of the parking zone	wait for the ringing tone	hang up	inform the requested call partner (e. g. via loudspeaker announcement)	internal number*	No. 0-9 of the parking position	conversation

* Internal base telephone number of the parking zone
  (If you use a direct exchange line telephone for the entry, ** is preceding the telephone number.)

Important To store a call in an internal parking zone or to take the call on your telephone, you need the authorization for „Call Parking" (see chapter View and modify the Properties of your own Subscriber Port on page 58).

Advice If the requested call partner is already in a call, he can start a query with the caller in the parking zone via a pick up. He has to dial ⊜R #️#️0️6️ + internal base telephone number + number of the parking zone in the current call.

If the holding time is exceeded (holding time can be defined between 1 and 20 minutes in the web interface of the configuration manager COMset), the call falls back to your own telephone again (your telephone rings). If your own telephone is busy in the meantime, the call will be hold once more for the defined holding time in the PBX. If the holding time is exceeded again, the call will be disconnected.

If you hear the busy tone after dialling the internal base telephone number, you do not have the authorization for this function.

If you hear the busy tone when selecting the parking zone, this position is already in use. When pressing the Query key you fall back and can dial the internal base telephone number of another parking position again.

Internal Subscriber is busy – Put the external Call Partner into the Waiting Loop

busy tone	back to the external call (automatically)	⊜R #️#️0️7️	acknowledgement tone	hang up

Advice If the internal subscriber does not pick up within the 60 seconds or if he stays busy during the whole 3 minutes, your telephone as the transferring party will be called again. If you pick up the receiver, you will be reconnected to external call partner again and will be able to put him into the Waiting Loop again. But if you do not take this call within 60 seconds, the exchange line connection will be completely disconnected (if you were busy in the mean time, perhaps also within a shorter time period).

⊜ISDN For many ISDN telephones and on the system telephone COMfort 1000/1200/2000 plus or COMfortel 1500/2500 the „Finishing a Query on busy" is not executed automatically but via function key or via menu (e.g. with „end", „separating", „back" or pressing the R-key again; see manual of the telephone).

Connect a 3rd Call during a Query

Start 3rd Call: If you additionally like to consult another call partner during a Query, you can start a 3rd call for this purpose. The 1st as well as the 2nd call partner are on hold in the background during this time.

○ - - - - - ○ 1st call partner (waiting)

○ 2nd call partner (waiting, previously active)
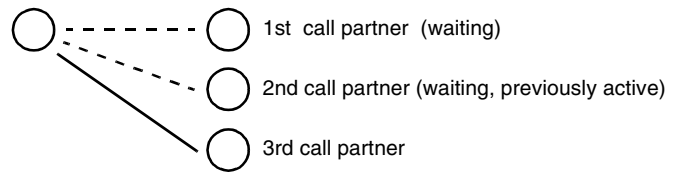
○ 3rd call partner

Finish 3rd call and return to the Query: If you have talked to the 3rd call partner and like to return to the Query, you can reach the previously active call partner (top) or the previously call partner on hold in the background (bottom) by dialling a digit sequence.

○ - - - - - ○ 1st call partner (waiting)

○ 2nd call partner

○ 3rd call partner (disconnected)

○ ——— ○ 1st call partner

○ - - - - ○ 2nd call partner (waiting)

○ 3rd call partner (disconnected)
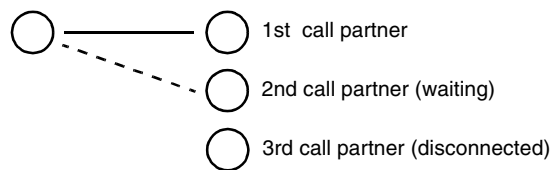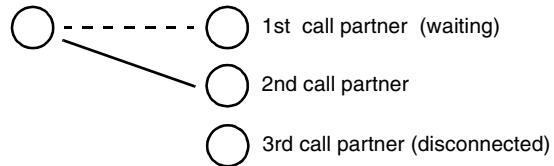
Transfer to the 3rd call partner: Let's assume that you have accepted another call e.g. took a knocking call (you have already been connected to two subscribers) and this 2nd call partner wants to be connected to another one, you could start a 3rd call, connect the 2nd and 3rd call partner and then continue to talk with your 1st call partner.

○ ——— ○ 1st call partner

○ 2nd call partner
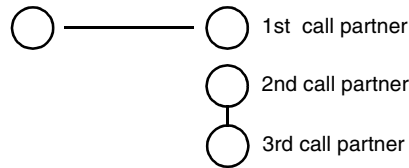
○ 3rd call partner

Only continue to talk with the 3rd call partner: By dialling a digit sequence you can finish your first two calls and continue to talk with the 3rd call partner.

○ 1st call partner (separated)

○ 2nd call partner (separated)

○ 3rd call partner (separated)
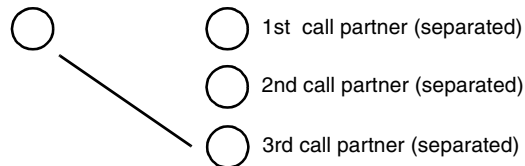
Start 3rd Call

Query call (see p. 18)   ⊕R   5   external telephone number*   3rd call

or   internal telephone number**   3rd call

* Exchange line access number 0 + external telephone number (If you use a direct exchange line telephone for the entry, the exchange line access number 0 is left out.) or short-code dialling number (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the short-code dialling number.)

** Internal telephone number of the individual telephone (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the telephone number.) or internal telephone number of the group (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the telephone number.)

⊕ISDN *In order to „call a 3rd call partner and to transfer" on ISDN telephones this function* **must** *be supported by function key or menu of the telephone (see manual of the telephone).*

Finish 3rd Call and return to the Query

⊕R 1

3rd call
(see p. 23)

return to the previously active call partner (Query)
– 3rd call partner is disconnected

or ⊕R 2

return to the previously call partner on hold
(Query) – 3rd call partner is disconnected.

Advice *If the 3rd call partner hangs up beforehand, you will also return to the previously active call partner. If you addition-* *ally dial ⊕R 1 then, you also disconnect the call with this partner.*

Connect the 3rd Call Partner with the 2nd one

⊕R 4

3rd call (see p. 23)

call with the 1st call partner - 2nd and 3rd call partner are connected

----

Advice *If the 3rd call partner is not ready to be transferred, you will return to the normal Query with ⊕R 1.*

If you do not dial ⊕R 0 in the 3rd call but hang up, the 2nd and 3rd call partner will also be connected. Then the 1st call will be signalled by the PBX like an external call. An internal call will be disconnected.

If the 3rd call partner is busy, you will be able to put the 2nd call partner into the Waiting Field with ⊕R 47 (compare with chapter Internal Subscriber is busy – Put the external Call Partner into the Waiting Loop on page 22).

Only continue to talk to the 3rd Call Partner

⊕R 0

3rd call (see p. 23)

Call with the 3rd call partner - 1st and 2nd call partners are disconnected

Make a Conference

Start a Conference: If you started a Query and like to talk to both call partners to simplify matters, you would be able to connect both calls to a Conference (three-party Conference call).

○ ── ○   1st call partner (previously on hold)

○   2nd call partner (previously active)
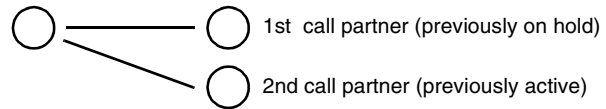
Transfer: If you like to withdraw yourself from a self-initiated Conference and like to give your call partners the opportunity of continuing their talk, you will be able to transfer them.

○   ○ 1st call partner

○ 2nd call partner
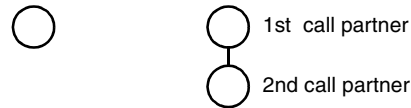
Finish completely: If you hang up the receiver during a Conference initiated by you, the call will completely be disconnected.

○   ○ 1st call partner (disconnected)

○ 2nd call partner (disconnected)
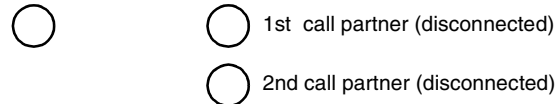
Back to the alternation: If you finish a conference and like to return to the alternation again, you can directly reach the previously active call partner (top) or the previously call partner on hold in the background (bottom) by dialling a digit sequence.

○ ─ ─ ─ ○ 1st call partner (waiting)

○ 2nd call partner (previously active)

○ ── ○ 1st call partner (previously on hold)

○ 2nd call partner (waiting)
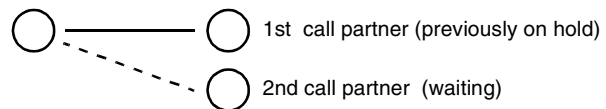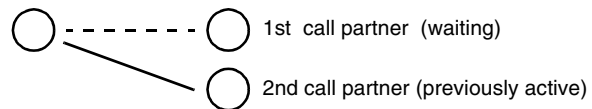
Advice   *Each of your call partners is able to finish his participation in the Conference at any time by hanging up the receiver.*

You cannot start a conference with a door terminal as call partner.

Start a Conference

Query call (see p. 18)   ⊕R   [3]   conference

⊕ISDN *With ISDN telephones and the system telephone a „Conference" is started with an existing function key or via menu (e.g. with „conf", „Conference" or „3-party Conference"; see manual of the telephone).*

⊕T-Net *If you use an analog telephone as an internal subscriber telephone where you can set the „starting of a three-party Conference" via T-Net function key/menu, you can also use this comfortable operation (see manual of the telephone).*

Advice   *You do not need the support of the public exchange (ISDN service attribute „Three-party Conference (3PTY)") for a Conference of two external call partners because the PBX supports Conferences via the 2nd B channel.*

A Conference is not possible with a door terminal.

If a handsfree operation telephone takes part in a three-party Conference internal subscribers, echo or whistle effects may occur.

Transfer both Call Partners

Conference (see p. 25)   ⊕R   [4]   hang up

Important   *You can only connect an external call to another external call partner in this way if the necessary authorization has been configured (see chapter View and modify the Properties of your own Subscriber Port on page 58).*

*In order to be able to „transfer (the call partners) during a Conference" this function **must** be supported via function key or via menu by the telephone (see manual of the telephone; perhaps also called as „ECT" or „Transfer").*

Talk alternately with both Call Partners (Alternation)

Conference (see)

⊕R   2

Back to the previously active call partner (query)

or   ⊕R   1

Back to the previously hold call partner (query)

⊕ T-Net   *If you use an analog telephone as an internal subscriber telephone where the „finishing of a Conference and back to Alternation" is executed via T-Net function key/menu, you can also use this comfortable operation (see manual of the telephone).*

Important   *In order to „finish a Conference selectively" this function must be supported via function key or via menu by the ISDN telephones (e.g. with „Alternation" or „single connection"; see manual of the telephone).*

Announcements via Loudspeaker and System Telephones

Announcement/handsfree operation (InterCom) via system telephone: (only in combination with the system telephones *COMfort 1000/1200/2000 plus* or *COMfortel 1500/2500*) This function enables an announcement to a system telephone from any available internal telephone without actively taking the call at the target telephone (e.g. in a doctor's office).

Besides this you can instruct a system telephone to switch on the microphone in addition to the loudspeaker (handsfree operation) so that a person nearby can talk to you via the built-in intercom.

On the called system telephone the LED next to the handsfree operation/loudspeaker key glows and the connection is established after it rings once.

Announcement via loudspeaker: (only in combination with a door/switch module *COMmander 2TSM analog*) This function enables an announcement to a loudspeaker device or an active loudspeaker (e.g. ELA system in a department store or supermarket) connected to the audio output (Cinch jack marked with „audio output") of the PBX. A previously configured internal telephone number is called from an internal telephone. The voice connection is established right after dialling the telephone number.

Start an Announcement to an internal System Telephone (InterCom)

    # # 0 1 1

internal telephone number*

Voice connection for announcement

---

*   Internal telephone number of the individual system telephone (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the telephone number.)
or internal telephone number of the group (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the telephone number.)

Important   *The InterCom function must be permitted on the called system telephone.*

The announcement is limited to 120 seconds. After that the connection will be interrupted automatically unless the receiver of the system telephone will be picked up within this period.

Start Handsfree Operation to an internal System Telephone (InterCom)

`#` `#` `0` `1` `2`

internal telephone number*   Voice connection for handsfree operation

---

*   Internal telephone number of the individual system telephone (If you use a direct exchange line telephone, ✱✱ have to be preceded.)

Important

The InterCom function must be permitted on the called system telephone.

The handsfree operation is limited to 120 seconds. After that the connection will be interrupted automatically unless the receiver of the system telephone will be picked up within this period.

Make a Loudspeaker Announcement

internal telephone number*   Voice connection for loudspeaker announcement

---

*   Internal telephone number of the announcement output (If you use a direct exchange line telephone, ✱✱ have to be preceded.)

Important

The telephone used needs an authorization for loudspeaker announcements (see chapter View and modify the Properties of your own Subscriber Port on page 58).

Talking to a Visitor at the Door (Door Terminal Call)

If the PBX is connected to a door terminal you can speak to visitors at the door from your telephone.

The telephone rings: If the „door ringing" is activated on your telephone, the ringing of a visitor will be signalled on your telephone. Then you can take the door terminal call like any other call

The door bell rings: When you hear your door bell ringing, you are able to call the door terminal via any telephone. The connection is set right after having dialled the telephone number. If you are already in a call, start a Query.

The visitor has not pressed the Door bell key: When you hear your door bell ringing, you are able to call the door terminal via any telephone. The connection is set right after having dialled the telephone number.

Open the door: During a door call with a visitor in front of the door terminal you are able to activate the door opener by dialling ⊕R #.

Query and connection: During a door call you can start an internal or external query.

Your Telephone rings

door bell ringing   door conversation

Advice

The door bell is ringing for 5-30 seconds depending on the configuration. If you have picked up the receiver too late,

you would be still able to call the door as described in the following.

Make Calls with normal Telephones and change Settings
Talking to a Visitor at the Door (Door Terminal Call)

The Door Bell rings (Your Telephone does not ring) – Call the Door

| door bell rings | internal telephone number* | door conversation |

* Internal telephone number of the door (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the telephone number.)

☞ **Advice** *You can even call the door before the visitor will have ringed.*

If the corresponding telephone was set as a door telephone, you would be connected to the door station right after having picked up the receiver.

You are in a Conversation and the Door Bell rings – Start internal Query to call door terminal

| conversation | door bell rings | ⊕R | internal telephone number* | Query call |

* Internal telephone number of the door (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the telephone number.)

☞ **Advice** *If the „door ringing" is switched on for your telephone and the Call-Waiting signal is allowed, a door call will knock during a call and you will be able to accept the waiting caller (see p. 13).*

On the system telephones COMfort 1000/1200/2000 plus or COMfortel 1500/2500 the door ringing is offered to you in the menu and you can open the door without interrupting your call (see manual of the telephone).

Open the Door during a Door Call

| door conversation | ⊕R | # | door opener activated, you will hear the acknowledgement tone for app. 2 sec | back to the door conversation |

✍ **Important** *The telephone must have a permission to be able to open the door (see chapter View and modify the Properties of your own Subscriber Port on page 58).*

☞ **Advice** *In the menu of the system telephone COMfort 1000/1200/ 2000 plus or COMfortel 1500/2500 „open" is used to open the door (see manual of the telephone).*

For some ISDN telephones the Query (or R) key must be pressed again after open the door (maybe also „back"), in order to return to the door call.

Start a second Call during a Door Conversation (Query Call)

| door conversation | ⊕R | external telephone number* | Query call |

or

| | internal telephone number** | Query call |

* Exchange line access number 0 + external telephone number (If you use a direct exchange line telephone for the entry, the exchange line access number 0 is left out.) or short-code dialling number (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the short-code dialling number.)

** Internal telephone number of the individual telephone (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the telephone number.) or internal telephone number of the group (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the telephone number.)

⊕ISDN *On ISDN telephones and on the system telephone the „Query" is started via an existing function key or via menu (e.g. with „Call2", „Query", „on hold" or „R-key"; see manual of the telephone).*

⊕T-Net *If you use an analog telephone as an internal subscriber telephone, where you can start a „Query call" via T-Net function key/menu, you will also be able to use this comfortable operation (see manual of the telephone).*

Transfer a Door Call

door conversation	⊜R	external telephone number*	Query call	hang up

or internal telephone number** | Query call | hang up

* Exchange line access number 0 + external telephone number (If you use a direct exchange line telephone for the entry, the exchange line access number 0 is left out.)
  or short-code dialling number (If you use a direct exchange line telephone for the entry, ✱✱ is preceding the short-code dialling number.)

** Internal telephone number of the individual telephone (If you use a direct exchange line telephone for the entry, ✱✱ is preceding the telephone number.)
  or internal telephone number of the group (If you use a direct exchange line telephone for the entry, ✱✱ is preceding the telephone number.)

Advice *If you press the flash or query call key and dial „4" instead of hanging up, you will hear the internal dial tone right after the connection and will be able to start a new call.*

With some ISDN telephones it may occur that your telephone rings after hanging up and that you are reconnected to your 1st call partner if you pick up. Please check with the help of the manual of the telephone whether the „PBX Transfer" is activated. Try to configure this option.

⊜T-Net *You can use the comfortable function „Transfer" by T-Net key/menu if your analog telephone is supporting this function (see manual of the telephone).*

⊜ISDN *For some ISDN telephones the „Transfer" can be executed via an existing function key or via menu instead of hanging up the receiver (see manual of the telephone; perhaps it is also called „ECT" or „Transfer").*

Switching Relays (Remote switching)

External devices can be switched on or off by the PBX with help of the connected relays. Some relays are switched depending on the PBX configuration, other in connection with the door and alarm/emergency function or when calling a certain telephone number (PC relays).

To switch on e.g. devices via telephone, the used relays are allocated to a 2- to 4-digit identification number that are used to switch it from an internal or external telephone.

Remote Switching via internal Telephone
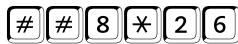
internal telephone #️⃣#️⃣8️⃣✱2️⃣6️⃣

Identification number for relays with the operation mode „configuration dependent" ✱1️⃣#️⃣ switch on

or Identification number for relays with the operation mode „configuration dependent" ✱0️⃣#️⃣ switch off

or Identification number for relay with the operation mode „stairway light, door opener, alarm indication lamp, siren, PC relay" #️⃣ switch off automatically corresponding to the configured on-time

Important *The telephone used needs an authorization for the switching of relays (see chapter View and modify the Properties of your own Subscriber Port on page 58).*

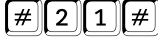**Advice** *On the system telephone COMfort 1000/1200/2000 plus or COMfortel 1500/2500 the relays can be switched comfortably via menu (see manual of the telephone).*

Remote Switching via external Telephone
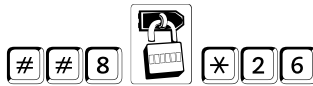
external telephone	telephone number for remote switching and programming	`#` `#` `8`	`*` `2` `6` External PIN	Identification number for relays with the operation mode „configuration dependent"	`*` `1` `#` switch on
			or	Identification number for relays with the operation mode „configuration dependent"	`*` `0` `#` switch off
			or	Identification number for relay with the operation mode „stairway light, door opener, alarm indication lamp, siren, PC relay"	`#` switch on (switch off automatically after configured on-time)

- -

Advice *For the switching of a relay via an external telephone you need an analog DTMF telephone, an ISDN telephone with DTMF signalization or a DTMF sender. If you called the PBX via the special telephone number for remote switching and programming, you will hear the external acknowledge tone (1 second) and will be able to enter a digit sequence (with the external PIN). Then you hear the external acknowledge tone again. If you wait too long with the entry of the code or if you enter a wrong code, you will hear the busy tone, In this case hang up the receiver and start again at the beginning.*

Use the Alarm Function

If the alarm functions of the PBX are used, in case of an alarm, internal and external subscribers may be called by the PBX and sirens and alarm indication lights can be switched on.

The Alarm Procedure:
① Alarm detection at the alarm input (contact closed longer than ½ a second).

② The configurable alarm delay time is running (0-99 seconds).

③ Non recurring start of the siren (for 1-6000 seconds) and/or the alarm indication light (for 1-6000 minutes).

At the same time the first alarm loop (emergency calls to the alarm subscribers) starts with the call to the first alarm subscriber (app. 60 seconds). Internal alarm subscribers will be called with a special ringer rhythm (may be dependent to telephone). After picking up the receiver an announcement recorded in the PBX is played back. The called partner has to acknowledge the emergency call within 60 seconds by dialling the DTMF digit ⓪.

④ If the called partner did not acknowledge the emergency call, the next emergency subscriber would be called a few seconds later when the conversation has been finished and so on.

⑤ If all configured emergency call subscribers are called and the alarm has not been acknowledged, the alarm call will be repeated after a configurable emergency delay time (0-99 seconds) (up to nine repetitions).

Confirm the alarm: An alarm may be signalled by the ringing of an internal telephone as well as of an external telephone. In order to finish the whole alarm sequence, you are able to confirm the alarm as described later.

Activate the alarm: You can activate/deactivate the alarm via an internal or external telephone. If you only activate the alarm input for a one-time alarm, it will automatically be deactivated after triggering. If you want the alarm input being activated after triggering, you have to set it to „always activated".

Your Telephone rings with the Alarm Rhythm –- Confirm Alarm

Alarm call to an internal (special ringing rhythm) or external telephone		announcement text	`0` within 60 seconds with DTMF telephone, DTMF sender or ISDN telephone with DTMF signalling	2 seconds confirming tone	confirm alarm

- -

Advice *To confirm the alarm is possible during the announcement. If you do not confirm the alarm (also when dialling a wrong digit), you will hear the busy tone and the call will automatically be disconnected by the PBX. Perhaps after a certain time another alarm call will happen even if the other alarm subscribers have not confirmed the alarm.*

Activate Alarm via internal Telephone

 `#` `#` `8` `*` `2` `4`
Sub-Admin PIN

identification number
for the alarm contact

`*`

`1` `#`
activate „once"
(alarm input is not activated after triggering)

or `2` `#`

activated „always"
(alarm input remains activated after triggering)

or `0` `#`

deactivate
(alarm input is not activated)
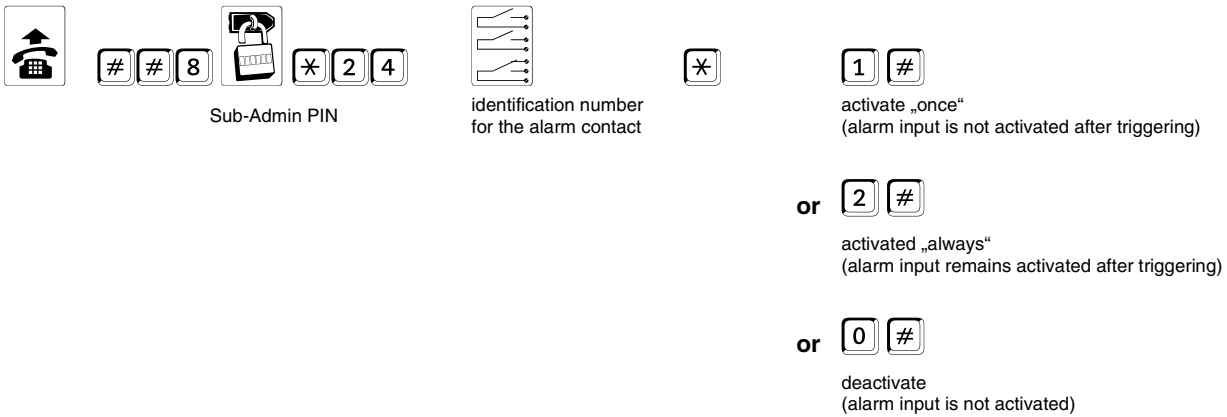
Activate Alarm via external Telephone
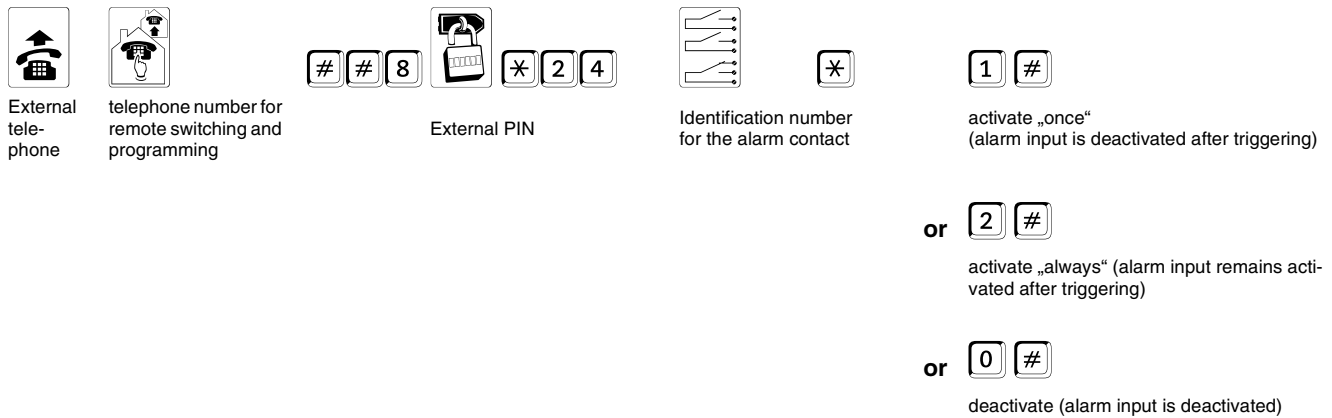
External
tele-
phone

telephone number for
remote switching and
programming

`#` `#` `8` `*` `2` `4`

External PIN

Identification number
for the alarm contact

`*`

`1` `#`
activate „once"
(alarm input is deactivated after triggering)

or `2` `#`

activate „always" (alarm input remains acti-
vated after triggering)

or `0` `#`

deactivate (alarm input is deactivated)

Advice

For the switching of a relay via an external telephone you need an analog DTMF telephone, an ISDN telephone with DTMF signalization or a DTMF sender. If you called the PBX via the special telephone number for remote switching and programming, you will hear the external acknowledge tone (1 second) and will be able to enter a digit sequence (with the external PIN). Then you hear the external acknowledge tone again. If you wait too long with the entry of the code or if you enter a wrong code, you will hear the busy tone, In this case hang up the receiver and start again at the beginning.

Make external Call through the PBX (Call Through)

Call Through: This function enables the use of the Least Cost Routing of the PBX for e.g. the travelling sales man. To avoid high costs when making e.g an international call with the mobile phone you can call the PBX first and you will be connected to the requested target by it. The function Call Through enables the post dialling of any telephone number.

The biggest savings can be achieved if the telephone number of the PBX has been selected as a favourite special telephone number (e.g. „TellyActive Local" or „Partner & Family") at the mobile phone provider.

Start a Call Through Connection

Call Through number	tone (1 s)	now continue with DTMF	external telephone number with preceding area code (also out of the telephone book of the mobile telephone)	conversation

or ✳✳ — Short-Code Dial Number of the PBX — conversation

or ✳✳ — internal telephone number of the telephone or group — conversation

----

Advice *For safety reasons: There is a time limit for outbound external Call Through calls in the PBX (1-99 minutes).*

If configured, the PBX will support Least Cost Routing for Call Through calls.

If the telephone number transmitted by the mobile telephone is not authorized to use Call Through, the caller hears the busy tone. The telephone number has to be configured in the telephone book of the PBX with the Call Through authorization. There is also configured if the dialled telephone number is checked against the Call Restrictor or the Call Deblocker.

Forward Calls to stay reachable (Subscriber Call Forwarding)

Thanks to the subscriber Call Forwarding (CF) you are able to forward internal and external calls that are targeted to your telephone to other internal telephones or external connections. You or your corresponding substitution can take these calls on another telephone.

So the subscriber Call Forwarding enables you or your corresponding substitution to be always available under your telephone number even if you cannot take a call on your original telephone.

As there may be different reasons for not being able to take a call e.g. you are absent for a shorter or longer period or you are just talking on your telephone, there are three different types of Call Forwarding: „the immediate subscriber Call Forwarding", the „subscriber Call Forwarding on busy" and „subscriber Call Forwarding on no Reply".

Forward telephone „unconditional": If you abandon your telephone for a longer period (e.g. you start off on your holidays) and like to avoid that the telephone always rings in vain, you are able to forward the calls to the telephone of your substitute (e.g. to the your colleague or to the answering machine). Or if it is possible to take the calls on another telephone e.g. your mobile phone, you will be able to forward them also to an external connection.

If you configure an internal telephone as forwarding target, it needs at least the authorization for incoming external calls to receive for for-

Forward telephone „on Busy": If you are often busy and having long calls and like to save other callers from long waiting time, you can activate the „subscriber Call Forwarding on busy". Then incoming calls are forwarded to another telephone (e.g. to one of your colleagues or to the answering machine) if your telephone is busy at the moment.

Forward telephone „on no Reply": If you like to be sure that somebody takes your calls even if you leave the room for a short moment, you will reach this by switching on the „subscriber Call Forwarding on no Reply". If you do not take the call within 20 seconds (configurable), the call will be forwarded to another telephone (e.g. of your colleague).

Important *A Call Forwarding configured by the user can be always or on certain times be over-programmed by the settings of the administrator (see chapter View and modify the Properties of your own Subscriber Port on page 58).*

For the configuration of external Call Forwardings the telephone has to be authorized (see chapter View and modify the Properties of your own Subscriber Port on page 58).

warded external calls.

Advice

For each of the three Call Forwarding options a different destination can be configured.

If the „CF on busy" and „CF on no Reply" are activated at the same time, both variants will be in use. Depending on the case - the telephone is busy or nobody takes the call - the call will be forwarded perhaps even to different destination numbers.

If an „CF unconditional" is activated in addition to a „CF on busy" and/ or a „CF on no Reply", only the „CF unconditional" is used that means the whole calls will be forwarded to the destination of the „CF unconditional". In this case the other forwarding settings are ignored, but are still active in the background. As soon as the „CF unconditional" is switched off, the other still active forwarding settings are used again.

If you like to forward only your external calls to other internal telephones or external connections, you can correspondingly restrict the Subscriber Call Forwarding via Web interface in the configuration manager COMset (see chapter View and modify the Properties of your own Subscriber Port on page 58).

In case of a group call the Subscriber Call Forwarding does not work. For this purpose use the Group Call Forwarding.

Do not mix up the subscriber Call Forwarding and the MSN/DDI Call Forwarding. You can only forward external calls to your mobile phone or another external connection with an MSN/DDI Call Forwarding. A forwarding of internal calls or to internal calls is not possible. So if you like to prevent that internal calls are forwarded to your mobile phone, use the MSN/DDI Call Forwarding (see p. 39).

Forward Telephone „unconditional" to an internal/external Telephone because you are absent

corresponding telephone

⊛ 2 1 ⊛   configure with internal target   internal telephone number*   #

or ⊛ 2 1 ⊛   configure with external target   external telephone number **   #

or ⊛ 2 1 #   activate

or # 2 1 #   deactivate

---

*   Internal telephone number of the individual telephone (If you use a direct exchange line telephone for the entry, ✶✶ is preceding the telephone number.)
or internal telephone number of the group (If you use a direct exchange line telephone for the entry, ✶✶ is preceding the telephone number.)

**   Exchange line access number 0 + external telephone number (If you use a direct exchange line telephone for the entry, the exchange line access number 0 is left out.)
or short-code dialling number (If you use a direct exchange line telephone for the entry, ✶✶ is preceding the short-code dialling number.)

- -

⊕ ISDN   *On some ISDN telephones and on the system telephone COMfort 1000/1200/2000 plus or COMfortel 1500/2500 you can switch on/off the „subscriber Call Forwarding" also via an existing function key or menu (see manual of the telephone; it is also called „call diversion").*

⊕ T-Net   *If you use an analog telephone as an internal subscriber telephone where the „Call Forwarding" is to be switched on/ off via T-Net function key/menu, you will also be able to use this comfortable operation (see manual of the telephone).*

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Make Calls with normal Telephones and change Settings

Forward Calls to stay reachable (Subscriber Call Forwarding)

### Forward Telephone „on Busy" to an internal/external Telephone because you are currently Telephoning

corresponding telephone

$\boxed{*}\boxed{6}\boxed{7}\boxed{*}$

configure with internal target

internal telephone number*

$\boxed{\#}$

or $\boxed{*}\boxed{6}\boxed{7}\boxed{*}$

configure with external target

external telephone number**

$\boxed{\#}$

or $\boxed{*}\boxed{6}\boxed{7}\boxed{\#}$

activate

or $\boxed{\#}\boxed{6}\boxed{7}\boxed{\#}$

deactivate

* Internal telephone number of the individual telephone (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the telephone number.)
or internal telephone number of the group (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the telephone number.)

** Exchange line access number 0 + external telephone number (If you use a direct exchange line telephone for the entry, the exchange line access number 0 is left out.)
or short-code dialling number (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the short-code dialling number.)

ISDN > On some ISDN telephones and on the system telephone COMfort 1000/1200/2000 plus or COMfortel 1500/2500 you can switch on/off the „subscriber Call Forwarding" also via an existing function key or menu (see manual of the telephone; it is also called „call diversion").

T-Net > If you use an analog telephone as an internal subscriber telephone where the „Call Forwarding" is to be switched on/off via T-Net function key/menu, you will also be able to use this comfortable operation (see manual of the telephone).

Forward Telephone „on no Reply" to an internal/external Telephone in Case of a short Absence

corresponding telephone

$\boxed{*}\boxed{6}\boxed{1}\boxed{*}$

configure with internal target

internal telephone number*

$\boxed{\#}$

or $\boxed{*}\boxed{6}\boxed{1}\boxed{*}$

configure with external target

external telephone number**

$\boxed{\#}$

or $\boxed{*}\boxed{6}\boxed{1}\boxed{\#}$

activate

or $\boxed{\#}\boxed{6}\boxed{1}\boxed{\#}$

deactivate

* Internal telephone number of the individual telephone (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the telephone number.)
or internal telephone number of the group (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the telephone number.)

** Exchange line access number 0 + external telephone number (If you use a direct exchange line telephone for the entry, the exchange line access number 0 is left out.)
or short-code dialling number (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the short-code dialling number.)

ISDN > On some ISDN telephones and on the system telephone COMfort 1000/1200/2000 plus or COMfortel 1500/2500 you can switch on/off the „subscriber Call Forwarding" also via an existing function key or menu (see manual of the telephone; it is also called „call diversion").

T-Net > If you use an analog telephone as an internal subscriber telephone where the „Call Forwarding" is to be switched on/off via T-Net function key/menu, you will also be able to use this comfortable operation (see manual of the Telephone).

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Take your Calls with you to stay reachable (Follow-me)

Follow-me is like a subscriber or group Call Forwarding „immediately", but in comparison with it, it can be configured when you have already left your desk with the telephone to be forwarded.

Configure Follow-me to an internal target telephone: With the help of this function you can go from room to room and take your calls with you. You can configure the Call Forwarding of your calls from the telephone (target telephone) where you currently are. But you can also take the calls of several subscribers/groups at your telephone.

Configure Follow-me from any available internal telephone: If you have already left your desk, you can forward your calls to another telephone. This way it is possible to forward the calls to your mobile phone or forward it to an internal representative.

Configure Follow-me from external: If you have already left the desk, you can forward your calls to another telephone. This way it is possible to forward the calls to your mobile phone or to forward it to an internal representative.

☞ **Important** *To configure the Follow-me for a group the internal telephone used has to be a member of the group to be forwarded and has to have the authorization for group Forwarding/Follow-me.*

An internal target telephone needs at least the authorization for incoming calls to receive forwarded external calls.

Configure Follow-me on the internal Target Telephone

Target telephone

8 ⚹ 1 9 1
Configure internal Forwarding to this telephone

Internal telephone number to be forwarded*

#

or # # 8 ⚹ 1 9 0 #
Delete all forwardings that have this telephone as a target

* Internal telephone number of the individual telephone (If you use a direct exchange line telephone for the entry, ⚹⚹ is preceding the telephone number.)
or internal telephone number of the group (If you use a direct exchange line telephone for the entry, ⚹⚹ is preceding the telephone number.)

Configure Follow-me from any available internal telephone

Internal telephone

8 ⚹ 1 9

1
Configure internal forwarding

internal telephone number to be forwarded*

⚹

internal target telephone number*

#

or 1
Configure external forwarding

internal telephone number to be forwarded*

⚹

external target telephone number**

#

or 0
delete CF

forwarded internal telephone number*

#

* Internal telephone number of the individual telephone (If you use a direct exchange line telephone for the entry, ⚹⚹ is preceding the telephone number.)
or internal telephone number of the group (If you use a direct exchange line telephone for the entry, ⚹⚹ is preceding the telephone number.)

** Exchange line access number 0 + external telephone number (If you use a direct exchange line telephone for the entry, the exchange line access number 0 is left out.)
or short-code dialling number (If you use a direct exchange line telephone for the entry, ⚹⚹ is preceding the short-code dialling number.)

Configure Follow-me from Outside

external tele-phone	telephone number for remote switching and programming	##8	external PIN	*19	1 Configure internal for-warding	internal telephone number to be for-warded *	*	internal target tele-phone number*	#

					or 1 Configure external for-warding	internal telephone number to be forwarded*	*	external target tele-phone number**	#

					or 0 Delete for-warding	forwarded internal telephone number*	#		

* Internal telephone number of an individual telephone or internal telephone number of the group

** Exchange line access number 0 + external telephone number or short-code dial number

Advice *For the programming via external telephone you need an analog DTMF telephone, an ISDN telephone with DTMF signalization or a DTMF sender. If you called the PBX via the special telephone number for remote switching and programming, you will hear the external acknowledge tone (1 sec-ond) and will be able to enter a digit sequence (with the external PIN). Then you hear the external acknowledge tone again. If you wait too long with the entry of the code or if you enter a wrong code, you will hear the busy tone, In this case hang up the receiver and start again at the beginning.*

Forward Calls to a Group to stay reachable (Group Call Forwarding)

Thanks to the group Call Forwarding you are able to forward internal and external calls addressed to your group to other internal tele-phones or external connections. Consequently a person that is not member of this group and is not able to log in, is able to take these calls.

The group Call Forwarding makes it possible that somebody is always reachable under the group telephone number even when calls cannot be taken by members of the group.

There are different reasons for not taking a call, e.g. nobody is there for a short or longer period of time or all the telephones logged in are busy. So there are 4 different types of Call Forwarding: the „CF unconditional", the „CF on busy", the „CF on no Reply" and the „CF if all subscribers are logged out".

Forward group „unconditional": If the members of the group are not reachable for a longer period and you like to avoid that calls to the group are unsuccessful, you will be able to forward the calls addressed to the group to the substitute's telephone.

Forward group „on busy": If the telephones logged into a group are busy often and you like to avoid that calls are not answered, you will achieve it by switching on the „group Call Forwarding on busy". Incoming calls will be forwarded unconditionally to another telephone (e.g. the reception for further transfers) if all the telephones logged in are busy.

Forward group „on no reply": If you like to make sure that some-body takes the calls for one group at any time even if the group mem-bers logged in leave the room for a short time you will reach it by „group Call Forwarding on no Reply". If none of the group members logged in is picking up within 20 seconds (configurable), the call will be forwarded to another telephone (e.g. reception).

Forward group „if all Subscribers are logged out": If you like that the calls for one group e.g. are taken by the answering machine dur-ing the night, you will be able to forward the group „if all subscribers are logged out" e.g. to an answering machine or a group of answering machines. Then the Call Forwarding has not to be set every night again but the members of the group have only to take care that they will be logged out at the end of a working day.

Advice *The configuration of „Call Forwarding if all subscribers are logged off" is only possible via web interface of the config-uration manager COMset (see chapter View and modify the Properties of your own Group on page 59).*

For each of the four forwarding types a different forwarding target can be set.

If the „Forwarding on busy", „Forwarding on no reply" and „Forward-ing if all subscribers are logged" out are activated at the same time, all three types will work. Depending on which case happens – on

busy or on no reply or all subscribers are logged out – the call will be forwarded to different target numbers.

If an „unconditional forwarding" is activated in addition to another type, only the „unconditional forwarding" works that means all calls are forwarded to the forwarding target of the „unconditional forwarding". The other types are overridden in this case, but they remain activated. As soon as the „unconditional forwarding" is switched off, the other, still activated types will work again.

Important *For the installation of group forwardings the telephone used has to be a member of the group to be forwarded and has to have the authorization for group Call Forwarding/Follow me.*

If you like to forward only external group calls to other internal telephones or external connections, you can correspondingly restrict the Group Call Forwarding via Web interface in the configuration manager COMset (see chapter View and modify the Properties of your own Subscriber Port on page 58).

Advice *Do not mix up the group Call Forwarding and the MSN/DDI Call Forwarding. You can only forward external calls to your mobile phone or another external connection with an MSN/DDI Call Forwarding. A forwarding of internal calls or to internal calls is not possible. So if you like to prevent that internal calls are forwarded to your mobile phone, use the MSN/DDI Call Forwarding (see p. 39).*

Forward Group „unconditional" to an internal/external Telephone because all Group Members are absent

`#` `#` `9` `7` [internal telephone number to be forwarded*] `#`

`*` `2` `1` `*` Configure with internal target [internal telephone number**] `#`

or `*` `2` `1` `*` Configure with external target [external telephone number***] `#`

or `*` `2` `1` `#` activate

or `#` `2` `1` `#` activate

---

* Internal telephone number of the group (entry can be left empty if the subscriber is logged in outbound in the group)

** Internal telephone number of the individual telephone (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the telephone number.) or internal telephone number of the group (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the telephone number.)

*** Exchange line access number 0 + external telephone number (If you use a direct exchange line telephone for the entry, the exchange line access number 0 is left out.) or short-code dialling number (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the short-code dialling number.)

Advice *If the telephone is „logged in" the group to be forwarded, you can simplify the configuration of the Call Forwarding. If you configure a Call Forwarding for this group on the corresponding telephone, you can enter the programming digit sequence without the telephone number to be forwarded, that means „##97#...".*

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Make Calls with normal Telephones and change Settings
Forward Calls to a Group to stay reachable (Group Call Forwarding)

Forward Group „on Busy" to an internal/external Telephone because all Telephones „logged in" are currently Telephoning

`[⌂]` `[#][#][9][7]` `[⌂]` `[#]`
internal telephone
number to be forwarded*

`[*][6][7][*]` `[⌂]` `[#]`
Configure with internal target   internal telephone number**

or `[*][6][7][*]` `[⌂]` `[#]`
Configure with external target   external telephone number***

or `[*][6][7][#]`
activate

or `[#][6][7][#]`
deactivate

* Internal telephone number of the group (entry can be left empty if the subscriber is logged in outbound in the group)

** Internal telephone number of the individual telephone (If you use a direct exchange line telephone for the entry, ** is preceding the telephone number.)
or internal telephone number of the group (If you use a direct exchange line telephone for the entry, ** is preceding the telephone number.)

*** Exchange line access number 0 + external telephone number (If you use a direct exchange line telephone for the entry, the exchange line access number 0 is left out.)
or short-code dialling number (If you use a direct exchange line telephone for the entry, ** is preceding the short-code dialling number.)

Advice *If the telephone is „logged in" outbound in the group to be forwarded, you can simplify the installation of the Call Forwarding. If you configure a Call Forwarding for this group on the corresponding telephone, you can enter the programming digit sequence without the telephone number to be forwarded, that means „##97#...".*

Forward Group „on no Reply" to an internal/external Telephone because all Group Members are absent for a Moment

`[⌂]` `[#][#][9][7]` `[⌂]` `[#]`
internal telephone
number to be forwarded*

`[*][6][1][*]` `[⌂]` `[#]`
Configure with internal target   internal telephone number**

or `[*][6][1][*]` `[⌂]` `[#]`
Configure with external target   external telephone number***

or `[*][6][1][#]`
activate

or `[#][6][1][#]`
deactivate

* Internal telephone number of the group (entry can be left empty, if the subscriber is logged in outbound in the group)

** Internal telephone number of the individual telephone (If you use a direct exchange line telephone for the entry, ** is preceding the telephone number.)
or internal telephone number of the group (If you use a direct exchange line telephone for the entry, ** is preceding the telephone number.)

*** Exchange line access number 0 + external telephone number (If you use a direct exchange line telephone for the entry, the exchange line access number 0 is left out.)
or short-code dialling number (If you use a direct exchange line telephone for the entry, ** is preceding the short-code dialling number.)

👉 **Advice** *If the telephone is „logged in" outbound in the group to be forwarded, you can simplify the installation of the Call Forwarding. If you configure a Call Forwarding for this group on the corresponding telephone, you can enter the programming digit sequence without the telephone number to be forwarded, that means „##97#.*

Forward external Calls to stay reachable (MSN/DDI Call Forwarding)

If you like to be reachable always for external calls even if you are not at home at the moment, use the MSN/DDI Call Forwarding.

Thanks to the MSN/DDI Call Forwarding you are able to forward an (exchange line) telephone number (dialled by an external caller) to another external telephone number. So these calls can be taken on another telephone, e.g. a mobile phone, if nobody takes the call internally.

As there may be different reasons for not taking a call, e.g. nobody is there during a shorter or longer period, we have three different Call Forwarding settings: The „CF unconditional", the „CF on busy" and the „CF on no Reply".

Forward exchange line number „unconditional": If you leave the office, you are able to switch on the „MSN/DDI Call Forwarding unconditional". Thanks to that you can forward your exchange line number (which an external caller dials) e.g. to your mobile phone.

Forward exchange line number „on busy": In case of activated „MSN/DDI Call Forwarding on busy" the forwarding is done to the external target number if the called telephone number (dialled by an external caller) is busy.

Forward exchange line number „on no Reply": If you often commute between office and your customers and do not like to switch on/off the Call Forwarding each time, you will be able to forward your exchange line telephone number (that is dialled by an external caller) e.g. to your mobile phone as a precaution. Then the internal telephones will only ring 20 seconds (configurable) if somebody calls you. If no telephone is picked up within this time, your mobile phone will start to ring.

For each of the three types of Call Forwarding can be configured another forwarding destination.

If the „CF on busy" and the „CF on no Reply" are active at the same time, both variants will work. Depending on which case will occur - it is busy or nobody takes the call - the call will be forwarded and even to different destination calling numbers.

If an „CF unconditional" is additionally activated to an „CF on busy" and/or an „CF on no Reply" only the „CF unconditional" will work that means all the calls will be forwarded to the forwarding destination of the „CF unconditional". The other variants will be ignored, but they are still switched on. As soon as the „CF unconditional" is switched off, the other variants that are still switched on, are active again.

👉 **Advice** *For the configuration of MSN/DDI Call Forwardings the telephone used needs an authorization (see chapter View and modify the Properties of your own Subscriber Port on page 58).*

Perhaps you have to wait a little bit longer for the confirmation tone because the Call Forwarding is configured in the public exchange.

Do not mix up the MSN/DDI Call Forwarding with the subscriber Call Forwarding. You can use this variant if you also like to forward internal calls. In this case a forwarding to internal telephones is also possible, e.g. to a colleague's telephone or to the answering machine (see *).*

Forward Exchange Line Number „unconditional" to an external Telephone because you are absent

📞 | # # 9 6 📞 # | ✳ 2 1 ✳ | 📞 | #

telephone number to be forwarded*   configure with external target   external telephone number**

or ✳ 2 1 #
activate

or # 2 1 #
deactivate

* External telephone number without exchange line access number (also with a direct exchange line telephone).

** Exchange line access number 0 + external telephone number (If you use a direct exchange line telephone for the entry, the exchange line access number 0 is left out.) or short-code dialling number (If you use a direct exchange line telephone for the entry, ✳✳ is preceding the short-code dialling number.)

👉 **Advice** *The telephone number to be forwarded consists of the number dialled by the external caller (but without local area code).*

If a preferred exchange line was configured for a telephone and the same number is always transmitted for business calls, you can simplify the configuration of the Call Forwarding. If you configure a Call Forwarding for this group on the corresponding telephone, you can enter the programming digit sequence without the telephone number to be forwarded, that means „##96#...".

On the system telephones COMfortel 1500/2500 the „MSN/DDI-Call Forwarding" can comfortably be switched via function key or via menu (see manual of the telephone book).

Make Calls with normal Telephones and change Settings

Forward external Calls to stay reachable (MSN/DDI Call Forwarding)

Forward Exchange Line Number „on Busy" to an external Telephone if the internal Telephones are busy at the Moment

Corresponding telephone

`#` `#` `9` `6` `#`

Telephone number to be forwarded*

`*` `6` `7` `*`

Configure with external target

external telephone number**

`#`

or `*` `6` `7` `#`

activate

or `#` `6` `7` `#`

deactivate

---

*   External telephone number without exchange line access number (also with a direct exchange line telephone).

**   Exchange line access number 0 + external telephone number (If you use a direct exchange line telephone for the entry, the exchange line access number 0 is left out.) or short-code dialling number (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the short-code dialling number.)

- -

Advice

The telephone number to be forwarded consists of the number dialled by the external caller (but without local area code).

If a preferred exchange line was configured for a telephone and the same number is always transmitted for business calls, you can simplify the configuration of the Call Forwarding. If you configure a Call

Forwarding for this group on the corresponding telephone, you can enter the programming digit sequence without the telephone number to be forwarded, that means „##96# „.".

On the system telephones COMfortel 1500/2500 the „MSN/DDI-Call Forwarding" can comfortably be switched via function key or via menu (see manual of the telephone book).

Forward an Exchange Line Telephone Number „on no Reply" in Case of a short Absence

Corresponding telephone

`#` `#` `9` `6` `#`

Telephone number to be forwarded*

`*` `6` `1` `*`

Configure with external target

external telephone number**

`#`

or `*` `6` `1` `#`

Activate

or `#` `6` `1` `#`

Deactivate

---

*   External telephone number without exchange line access number (also with a direct exchange line telephone).

**   Exchange line access number 0 + external telephone number (If you use a direct exchange line telephone for the entry, the exchange line access number 0 is left out.) or short-code dialling number (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the short-code dialling number.)

- -

Advice

The telephone number to be forwarded consists of the number dialled by the external caller (but without local area code).

If a preferred exchange line was configured for a telephone and the same number is always transmitted for business calls, you can simplify the configuration of the Call Forwarding. If you configure a Call Forwarding for this group on the corresponding telephone, you can enter the programming digit sequence without the telephone number to be forwarded, that means „##96# „.".

On the system telephones COMfortel 1500/2500 the „MSN/DDI-Call Forwarding" can comfortably be switched via function key or via menu (see manual of the telephone book).

Enable a Connection without Dialling (Baby Call/Hotline)

With the automatic dialling function you can configure your telephone to dial automatically an internal or external number. This will start 2 seconds after taking the receiver off-hook. It is not necessary to press any key. If you start to dial before these 2 seconds have elapsed, this has priority. Please pay attention to the fact that some telephones do not dial immediately after pressing the key (sometimes delayed by $^1/_2$ second). In this case, you have to start dialling in time!

Important *A baby call configured by the user can be overridden always or sometimes by the configuration of the administrator (see chapter View and modify the Properties of your own Subscriber Port on page 58).*

Configure Baby Call/Hotline

Corresponding telephone

⁂ 5 3 ⁂   Configure with internal target   internal telephone number*   #

or   ⁂ 5 3 ⁂   Configure with external target   external telephone number**   #

or   ⁂ 5 3 #   Activate

or   # 5 3 #   Deactivate

---

*   Internal telephone number of the individual telephone (If you use a direct exchange line telephone for the entry, ⁂⁂ is preceding the telephone number.)
     or internal telephone number of the group (If you use a direct exchange line telephone for the entry, ⁂⁂ is preceding the telephone number.)

**   Exchange line access number 0 + external telephone number (If you use a direct exchange line telephone for the entry, the exchange line access number 0 is left out.)
     or short-code dialling number (If you use a direct exchange line telephone for the entry, ⁂⁂ is preceding the short-code dialling number.)

No Disturbance by Your telephone (Call Protection)

Do-Not-Disturb: If you temporarily do not like to be disturbed by your telephone, you can configure your telephone to prevent external and internal calls. A caller will hear the busy tone, an internal subscriber will be able to reach you in case of an emergency with a Priority Call. You are able to make calls from a telephone with Do-Not-Disturb function enabled.

Priority Call: If you have to be reached by a person e.g. in case of an emergency, the call protection of an internal telephone can be bypassed. So if you hear the busy tone after dialling an internal telephone number and you like to reach the subscriber nevertheless, do not hang up but wait 10 seconds and listen to the busy tone. After this waiting time the call protected telephone is ringing. If you continue to hear the busy tone, the other subscriber is talking on the phone.

Hinweis   *If you call from a system telephone (COMfort 1000/1200/ 2000 plus or COMfortel 1500/2500), you can check in* advance whether the called internal subscriber is busy or if Do-not-Disturb is activated with the busy lamp field.

Call Deblocker incoming (VIP list): If you like to release your telephone for certain persons during an activated „Do-Not-Disturb", you can enable this with the function „Call Deblocker incoming". The external telephone numbers of the corresponding persons have to be entered in a Call Deblocker assigned to your telephone. You can activate or deactivate the list on your own telephone according to your need.

Call Restrictor incoming (Robinson list): If you do not like to be called by certain persons at all, you can activate this functionality by the „Call Restrictor incoming". The external telephone numbers of the corresponding persons have to be entered in a Call Restrictor assigned to your telephone. You can activate or deactivate the function on your own telephone according to your need.

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Activate Do-Not-Disturb

your telephone

`#` `#` `8` `*` `2` `1`

`1` `#`

switch on

or `0` `#`
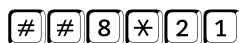
switch off

Important
A call protection configured by the user can be overridden always or sometimes by the configuration of the administrator (see chapter View and modify the Properties of your own Subscriber Port on page 58).

Advice
On the system telephones COMfort 1000/1200/2000 plus or COMfortel 1500/2500 the Do-Not-Disturb can be controlled comfortably via menu (see manual of the telephone).

Make a Priority Call in Case of Call protected Telephone

Busy tone   Wait for 10 seconds   ringing tone   conversation

Activate Call Deblocker incoming (VIP List)

your telephone

`#` `#` `8` User PIN `*` `2` `2`

`1` `#`

activate

or `0` `#`

deactivate

Important
A Call Deblocker configured by the user can be overridden always or sometimes by the configuration of the administrator (see chapter View and modify the Properties of your own Subscriber Port on page 58).

Advice
On the system telephones COMfort 1000/1200/2000 plus or COMfortel 1500/2500 the Call Deblocker can be controlled comfortably via menu (see manual of the telephone).

Activate Call Restrictor incoming (Robinson List)

your telephone

`#` `#` `8` User PIN `*` `2` `3`

`1` `#`

activate

or `0` `#`

deactivate

Important
A Call Restrictor configured by the user can be overridden always or sometimes by the configuration of the administrator (see chapter View and modify the Properties of your own Subscriber Port on page 58).

Advice
On the system telephones COMfort 1000/1200/2000 plus or COMfortel 1500/2500 the Call Restrictor can be controlled comfortably via menu (see manual of the telephone).

Listen into a Room (Room Monitoring)

If you like to listen into a room, you can use the function „Room Monitoring" of the PBX. The internal telephone has to be configured for this function. The room monitoring can be done with an internal as well as an external telephone.

After the configuration the receiver will be placed near the telephone. A secret monitoring is not possible.

Enable the Room Monitoring on an internal Telephone

telephone in the room to be monitored

| # | # | 8 | ✱ | 6 | 1 | # |

Place the receiver near the telephone.

☞ **Advice** *You cannot phone with the configured telephone and normal calls are also not possible.*

It is only possible to enable a single telephone for Room Monitoring at the same time.

To deactivate Room Monitoring, replace the receiver of the telephone.

Listen into the Room from an internal Telephone

internal telephone   internal telephone number of the Room Monitoring telephone*

Room Monitoring

* Internal telephone number of the individual telephone (If you use a direct exchange line telephone for the entry, ✱✱ is preceding the telephone number.)

Listen into the Room from an external Telephone

external tele-   telephone number for
phone   switching and programming

| # | # | 8 | | ✱ | 6 | 0 | # |

external PIN

Room Monitoring

☞ **Advice** *You are in need of an analog DTMF telephone, an ISDN telephone with DTMF signalling or a DTMF sender to listen into the room. If you call the PBX on the special number for remote switching and programming you will hear the external acknowledgement tone (1 second) and can the enter the digit sequence (with the external PIN). Then you will hear the acknowledgement tone again. If you wait too long with entering the code sequence or enter the wrong code, you will hear the busy tone. Replace the receiver and try again.*

Use the Wake-up Function

To be reminded of single or recurrent dates by your own telephone, you can use the wake-up function.

Single/Repetitive Wake-up: The Wake-up time can be activated for a one-time or repetitive function. If you like to get a Wake-up call always at the same time, you have to configure „repetitive Wake-up". The Wake-up function will be active until you switch it off. Once configured, the Wake-up time will be stored until you configure a different one.

Example: You have activated the Wake-up time „Monday to Friday at 12.30 clock". If you do this activation on a Sunday evening for „Wake-up once", you would be waked up on the following Monday at 12.30 clock. The Wake-up function will be deactivated then. If you have configured the same Wake-up time repetitive, you will be waked-up also from Tuesday until Friday at 12.30 clock (every week, until Wake-up is deactivated).

☞ **Advice** *The configured wake-up time as described here will be overwritten in case of a new entry. Via web interface of the configuration manager up to 20 additional wake-up times can be configured for each telephone (see* chapter Enter Wake-up Times for your own Subscriber Port on page 61).

If holidays have been configured in the PBX and activated for Wake-up calls too, the Wake-up calls defined for a Sunday are made on a holiday instead of the Wake-up calls of the corresponding week day.

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Make Calls with normal Telephones and change Settings
Use the Wake-up Function

Configure Wake-up Time and activate the Function for one single Wake-up

[phone icon] # # 8 [PIN icon] * 3 1   [clock icon]   1 ... 7 #

your telephone   User PIN   time: 00-23 (hours), 00-59 (minutes)   Day 1-7: Monday - Sunday

or 8 #

Saturday and Sunday

or 9 #

Monday until Friday

or 0 #
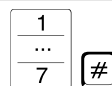
every day

Configure Wake-up Time and activate the Function for repetitive Wake-up

[phone icon] # # 8 [PIN icon] * 3 2   [clock icon]   1 ... 7 #

your telephone   User PIN   time: 00-23 (hours), 00-59 (minutes)   Day 1-7: Monday - Sunday

or 8 #

Saturday and Sunday

or 9 #

Monday until Friday

or 0 #
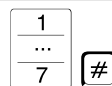
every day

Delete all of your own Wake-up Times

[phone icon] # # 8 [PIN icon] * 3 3 #

your telephone   User PIN

Delete Wake-up Times of all Telephones

[phone icon] # # 8 [PIN icon] * 3 4 #

your telephone   Sub-Admin-PIN

Call Groups (Teams) all together

Your telephone may be member in one or several groups (teams). These groups are used e.g. to combine the internal subscribers of certain departments (support, marketing, sales).

A group has, like an internal subscriber, an internal number. Some settings are also handled similar to an internal subscriber. The call diversion (External and door) can be configured for groups. The group number can also be forwarded to an internal or external subscriber (group Call Forwarding).

Additionally there are some functions that can only be assigned to a group such as e.g. text before answering and reservation of B-channels.

Groups can internally be used or called the same way as single internal telephones in the following functions:

- Pick-up
- Call transfer
- Internal Call/Query/Transfer
- Call Through
- Destination number for a call forwarding and follow me
- Automatic Dialling/Alarm Call

Log in/out: Your membership in a group does not mean that you are always called when your group is called. If you do not like to be reachable via the group calling number for a certain time but only as an individual subscriber, you will be able to „log out" of this group.

This way there are active and passive members of the group. This function can be important for members of service lines or call centers who do not like to be available for their customers around the clock.

Group functionality is not available for a subscriber that is logged out, but only for a certain period. There are three different modes to log in:

- only incoming
- only outbound
- incoming + outbound

A subscriber which is member of several groups can be only be „logged in outbound" in one single group at the same time. If he likes to get also the calls of the other groups in this case, he will be able to log in there as „incoming". Therefore he will be in the call distribution of more groups for internal -, public exchange - and door terminal calls.

With „log in outbound" into a certain group, the subscriber gets a number of features/authorizations of the group which will replace his own features/authorizations as an individual subscriber in case of outbound business calls:

- Exchange line authorization
- Blocking/Release numbers
- Short-Code Dialling authorization
- Calling number presentation
- Preferred exchange line

Important *„Permanently logged in" telephones cannot be „logged out" of a group.*

Only subscribers that are member of a group can also log in to this group via telephone.

Advice *On the system telephones COMfort 1000/1200/2000 plus or COMfortel 1500/2500 you can comfortably log in/log out via menu.*

Log in/out incoming
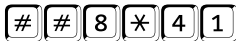
your telephone	`#` `#` `8` `*` `4` `1`	`1` log in to a group	internal telephone number*	`#`
		or `1` `#` log in to all groups		
		or `0` log out of a group	internal telephone number*	`#`
		or `0` `#` log out of all groups		
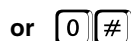
---

* Internal telephone number of the group (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the telephone number.)

Make Calls with normal Telephones and change Settings

Call Groups (Teams) all together

Log in/out outbound

📞 | # # 8 * 4 2 | 1 | 🏠📞 | #
your telephone | | log in to a group | internal telephone number* |

or 0 #
log out

---

*   Internal telephone number of the group (If you use a direct exchange line telephone for the entry, ** is preceding the telephone number.)

Log in/out incoming and outbound

📞 | # # 8 * 4 0 | 1 | 🏠📞 | #
your telephone | | log in to a group | internal telephone number* |

or 0 | 🏠📞 | #
log out of a group | internal telephone number* |

or 0 #
log out of all groups

---

*   Internal telephone number of the group (If you use a direct exchange line telephone for the entry, ** is preceding the telephone number.)

👉 *If you try to „log in outbound and incoming" into different groups, you will be only „logged in outbound" in the last*   *group tried. In the other groups you will be only „logged in incoming".*

Advice

Log out all Members of a Group incoming and outbound

📞 | # # 8 * 4 8 0 | 🏠📞 | #
Telephone of a member of the group | | internal telephone number* |

---

*   Internal telephone number of the group (If you use a direct exchange line telephone for the entry, ** is preceding the telephone number.)

Use different Configurations (Day, Night etc.)

The PBX has the option to configure some functions e.g. for day, night, holiday and lunch break differently. There are eight (COMmander Basic.2, COMpact 5010/5020 VoIP) or two and after extension up to ten (COMmander Business) configurations.

The switching from one configuration to another can be done time-controlled by the internal clock or additionally manually by an internal or external telephone.

Activate Configuration from internal Telephone
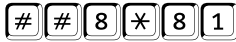
| Internal telephone | `#` `#` `8` `*` `8` `1` | Identification number of the configuration | `#` |

Important The telephone used has to be authorized for the switching of configurations (see *chapter View and modify the Properties of your own Subscriber Port on page 58*).

Advice *On the system telephone COMfort 1000/1200/2000 plus or COMfortel 1500/2500 the configurations can be switched over comfortably via menu and be enquired (see manual of the telephone)*

If the automatic configuration switching is activated at the same time, the configuration activated here is valid until the next switching time has been reached.

Switch Configuration from external Telephone

| External telephone | Telephone number for remote switching and programming/configuration | `#` `#` `8` External PIN `*` `8` `1` | Identification number for the configuration | `#` |

Advice *You are in need of an analog DTMF telephone, an ISDN telephone with DTMF signalling or a DTMF sender for switching the configuration. If you call the PBX on the special number for remote switching and programming you will hear the external acknowledgement tone (1 second) and can enter the digit sequence (with the external PIN). Then you will hear the acknowledgement tone again. If you wait too long with entering* the code sequence or enter the wrong code, you will hear the busy tone. Replace the receiver and try again.

If the automatic configuration switching is activated at the same time, the configuration activated here is valid until the next switching time has been reached.

Charges and Call Data

Configure a call allowance account: With help of a call allowance account a restricted amount of monetary units can be configured. As soon as these units are spent on the corresponding telephone no external calls are possible until the amount is recharged.

Start-/Stop command for call data printout: The call charge data stored in the PBX can also be printed on a printer instead of the call charge management via PC at any time. To be able to remove the printer from the PBX from time to time without losing data for this operation mode, you need the start/stop command.

As soon as you have connected a printer, you enter the start command. Accumulated call data is immediately printed. If it is necessary to separate the printer from the PBX from time to time, you can enter the stop command. Calls after the stop command will be stored and only printed after a new start command.

If you renounce the stop of data output, you have to reckon on the case that the call data will not be printed in the meantime.

Delete individual call data sets: This function enables e.g. a member of the works committee to delete the telephone numbers of his commercial partners in the call charge data completely to protect the information against unauthorized persons. The part of the call charge data being relevant for the invoicing will stay unharmed.

Create Call Allowance Account

| 📞 | `#` `#` `8` | 🔒 Sub-Admin PIN | `*` `7` `4` | 🏠 Internal telephone number* | `*` | 0 … 99998 Quantity of monetary units (e.g. Cent) | `#` |

or `9` `9` `9` `9` `9` `#`
unlimited

*   Internal telephone number of the individual telephone (If you use a direct exchange line telephone for the entry, ∗∗ is preceding the telephone number.)

Important

To use the function „Call Allowance" without restrictions, you will need the feature „Advice of charge during the call (AOCD)" for your ISDN exchange line. With „Advice of charge at the end of the call (AOCE)" the PBX can only find out at the end of the call, whether the Call Allowance has been exceeded.

Start-Command for Call Data Output

📞 `#` `#` `8` `*` `2` `7` `1` `#`

Stop-Command for Call Data Output

📞 `#` `#` `8` `*` `2` `7` `0` `#`

Delete Individual Call Charge Data Sets

| 📞 your telephone | `#` `#` `8` | 🔒 User PIN | `*` `5` `1` `#` |

Important

For this function a special authorization is necessary for the phone (see chapter View and modify the Properties of your own Subscriber Port on page 58).

Change the Music on Hold/Announcement

Music on Hold: If you make a transfer or Query, the call partner in the background will hear a Music on Hold combined with an optional announcement.

The Music on Hold is stored in the PBX (internal Music on Hold) or is provided as external Music on Hold via an audio input.

Music on Hold Announcement: The Music on Hold Announcement can overlay the Music on Hold in certain time intervals.

Announcement for Text before Answering: In case of external calls to a group the function Text before Answering enables a greeting message to the caller before taking the call and/or if all members of the group are busy (automatic waiting loop before Text before Answering).

The call is taken by the PBX first (charges will occur for the external caller). A greeting message is played to the external caller (e.g. information about the company). Then the caller hears the Music on Hold (on busy he will be put on hold after he heard the greeting message). As soon as one of the called users picks up the receiver (or on busy finished his call), he will be connected to the external caller.

Announcement for Automatic Reception: The Automatic Reception allows the automatic forwarding of a caller to his requested call partner. The caller hears an announcement (e.g. „if you like to talk to the sales department, please dial the 1 ...") and can reach an individual internal subscriber, a group, an external calling partner or another automatic registration by dialling a DTMF digit between 0 and 9.

A total of 10 receptions that can be configured that may be connected in parallel or in a daisy-chain. Therefore it is possible to operate several automatic receptions in parallel e.g. in case of multiple companies or if necessary, to define a main reception with several sub-receptions. There are up to 10 announcements available for 10 possible receptions.

Alarm Announcement: If the alarm functions of the PBX are used, in case of an alarm internal and external subscribers may be called by the PBX and sirens and alarm indication lights can be switched on. If a called alarm subscriber picks up the receiver an announcement recorded in the PBX is played back. The called partner has to acknowledge the emergency call.

Wake-up Announcement: If a user picks up the receiver during a wake-up call a wake-up announcement recorded in the PBX is played back. This announcement can vary depending on the daytime.

Record internal Music on Hold with the PBX

8 | Sub-Admin PIN | * 5 6 3 2 *

You hear the acknowledgement tone

Press the star key to start the recording **and** switch on the music output device simultaneously.

Stop the recording

Waiting tone and following replay of the recording

Advice *This function will delete the existing Music on Hold directly. The Music on Hold may have a maximum length of 6 minutes. After this time the recording will automatically be stopped and you will hear the acknowledgement tone. If you are using a shorter Music on Hold, you can stop the recording unconditionally by hang-up or pressing the ▣ key.*

The music has to be recorded from the audio input of the PBX (If there are several audio inputs, take the one that is selected for the external Music on Hold)

To play external music or Music on Hold recorded by yourself, please note that some music songs are subject to a fee to the copyright holder. Please ask the corresponding authorities.

Delete internal Music on Hold

8 | Sub-Admin PIN | * 5 5 3 2

Record the Music on Hold Announcement via Telephone

8 | Sub-Admin PIN | * 5 6 3 1 *

You hear the acknowledgement tone

Start the recording

Record the requested text

Stop the recording

Waiting tone and following replay of the recording

Advice *This function will delete the existing Music on Hold announcement directly. The Music on Hold announcement may have a maximum length of 1 minute. After 1 minute the recording will be stopped automatically and you will hear the acknowledgement tone. If you are using a shorter Music on Hold announcement, you can stop the recording unconditional by hang-up or pressing the ▣ key.*

The Music on Hold announcement is directly recorded from the receiver of an internal telephone.

Delete Music on Hold Announcement

`📞` `#` `#` `8` `🔒` `*` `5` `5` `3` `1` `#`

Sub-Admin PIN

Activate/Deactivate the Music on Hold and Announcement and listen to it

`📞` `#` `#` `8` `🔒` `*` `5` `7` `3`   `0` `#` `📞))`

Sub-Admin PIN   No Music on Hold/Announcement

or `1` `#` `📞))`

Announcement only

or `2` `#` `📞))`

Internal Music on Hold only

or `3` `#` `📞))`

Internal Music on Hold + announcement

or `4` `#` `📞))`

External Music on Hold only

or `5` `#` `📞))`

External Music on Hold + announcement

☞ Advice *Depending on the length of the announcement it may take some time to load. During this time you will hear two short tones every 5 seconds.*

Record Announcement for Automatic Reception

`📞` `#` `#` `8` `🔒` `*` `5` `6` `4`   `0 ... 9`   `*`   `📞))`   `*`   `🎤`   `#`   `📞))`

Sub-Admin PIN   No. 1-9 and   You hear the   Start the   Record the   Stop the   Waiting tone
                       10[0] of the   acknowledge-   recording   requested   recording   and following
                       announce-   ment tone   text   replay of the
                       ment   recording

☞ Advice *An existing announcement is directly overwritten with the recording function. The text of the announcement to be recorded may have a different length depending on the number of the announcement (no. 1-2 30 seconds each, no. 3-5 20 seconds each and no. 6-10 10 seconds each). After this*

time the recording will be stopped automatically and you will hear the confirmation tone. If you use a shorter text, you can stop the recording by hanging up the receiver or by pressing the ⊞.

The announcement is recorded directly from the receiver of an internal telephone.

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Delete Announcement for Automatic Reception

📞	# # 8	🔒	* 5 5 4	0 ... 9	#
		Sub-Admin PIN		No. 1-9 and 10[0] of the announcement	

Listen to Announcement for Automatic Reception

📞	# # 8	🔒	* 5 7 4	0 ... 9	#	📞
		Sub-Admin PIN		No. 1-9 and 10[0] of the announcement		You hear the announce-ment

☞ **Advice** *Depending on the length of the announcement it may take some time to load. During this time you will hear two short tones every 5 seconds.*

Record the Announcement before Answering with a Telephone

📞	# # 8	🔒	* 5 6	01 ... 10	*	📞	*	🎙	#	📞
		Sub-Admin PIN		No. 1-10 of the announcement		You hear the acknowledge-ment tone	Start the recording	Record the requested text	Stop the recording	Waiting tone and following playing of the recording

☞ **Advice** *This function will delete the existing welcome message immediately. The announcement before answering may have a maximum length of 1 minute. After 1 minute, the* *recording will be stopped automatically and you will hear the acknowledgement tone. If you are using a shorter welcome message, you can stop the recording by hang-up or pressing the ⊞ key.*

The announcement is recorded directly from the receiver of an internal telephone.

Delete Text before Announcement

📞	# # 8	🔒	* 5 5	01 ... 10	#
		Sub-Admin PIN		No. 1-10 of the announcement	

Listen to Text before Announcement

📞	# # 8	🔒	* 5 7	01 ... 10	#	📞
		Sub-Admin PIN		No. 1-10 of the announcement		You hear the announcement

☞ **Advice** *Depending on the length of the announcement it may take some time to load. During this time you will hear two short tones every 5 seconds.*

Record the Wake-up Announcement

| | # # 8 | Sub-Admin PIN | * 5 6 2 | 1 ... 3 No. 1-3 of the announcement | * | You hear the acknowledge-ment tone | Start the recording | Record the requested text | Stop the recording | Waiting tone and following replay of the recording |

Advice   *This function will delete the existing welcome message immediately. The announcement may have a maximum length of 20 seconds. After 20 seconds, the recording will* *be stopped automatically and you will hear the acknowledgement tone. If you are using a shorter welcome message, you can stop the recording by hang-up or pressing the ⌗ key.*

The announcement is recorded directly from the receiver of an internal telephone.

Delete Wake-up Announcement

| | # # 8 | Sub-Admin PIN | * 5 5 2 | 1 ... 3 No. 1-3 of the announcement | # |

Listen to Wake-up Announcement
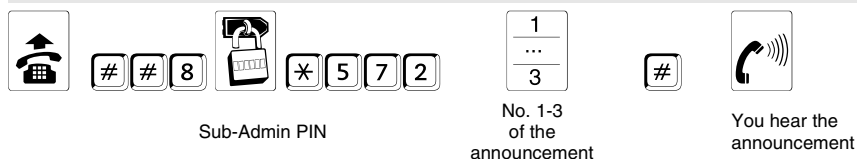
| | # # 8 | Sub-Admin PIN | * 5 7 2 | 1 ... 3 No. 1-3 of the announcement | # | You hear the announcement |

Advice   *Depending on the length of the announcement it may take some time to load. During this time you will hear two short tones every 5 seconds.*

Record the Alarm Announcement via Telephone

| | # # 8 | Sub-Admin PIN | * 5 6 3 | 6 ... 9 No. 1[6]-4[9] of the announcement | * | You hear the acknowledge-ment tone | Start the recording | Record the requested text | Stop the recording | waiting tone and following replay of the recording |
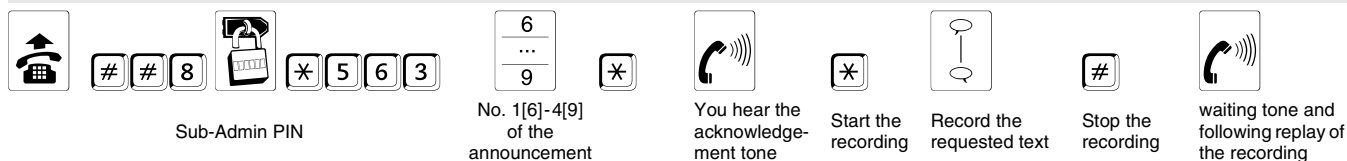
Advice   *This function will delete the existing announcement directly. The announcement may have a maximum length of 30 seconds. After 30 seconds the recording will be stopped automatically and you will hear the acknowledgement tone. If you are using a shorter Music on Hold announcement, you can stop the recording unconditional by hang-up or pressing the ⌗ key.*

The following facts can be included in such an announcement text e.g.:
- name and address of the PBX owner;
- reason for the alarm activation;
- Information about the procedure to confirm the alarm (dial the digit ⓪ within 60 seconds with an analog DTMF telephone, an ISDN tele-phone with DTMF signalization or a DTMF sender).

Delete Alarm Announcement

Sub-Admin PIN

No. 1[6]-4[9]
of the
announcement
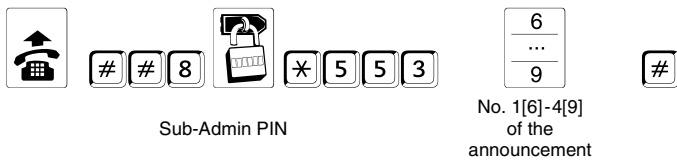
Listen to the Alarm Announcement
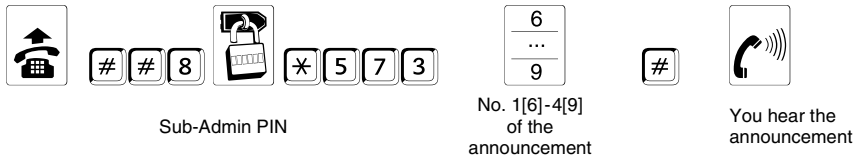
Sub-Admin PIN

No. 1[6]-4[9]
of the
announcement

You hear the
announcement

Advice *Depending on the length of the announcement it may take some time to load. During this time you will hear two short tones every 5 seconds.*

Hotel Functions for Reception and Room Telephones

The hotel function (only COMpact 5020 VoIP, COMmander Basic.2 and COMmander Business) enables the comfortable room and call data management if the PBX is used in a hotel. The scope of functions can be divided into three main areas.

Hotel Reception Telephone: (only in combination with a system telephone *COMfort 2000 plus* or *COMfortel 1500/2500*) The hotel reception telephone enables various control and information functions via display and LEDs on the Xtension module. An additional PC is not necessary at the reception in many cases. The guests' Check in and Check out are directly controlled with the menu of the telephone. There are various functions available for the affected room in different phases.

Arrival of the guest (check in):

■ View Room status (clean, uncleaned, blocked)
■ Perform „check in"

During the guest´s stay (after check in):

■ Permit/block outbound calls from the room telephone
■ Configure the wake-up time of the room telephones
■ View guest information (e.g. accrued telephone charges, time of check in)
■ Print informational invoices (of the currently accrued telephone charges) for the guest directly to a printer

The guest leaves:

■ Perform „check out"
■ Print invoice for the accrued telephone charges directly to a printer

The use of the hotel reception telephone is described in the manual of the system telephone.

Hotel Room Telephones: The PBX has many functions not making sense or being harmful if used from a hotel room telephone. This is the reason for blocking programming functions (like e.g. Do-not-disturb, Call forwarding) exchange functions and special exchange line access types. This way, the guest can only make outbound calls and accept calls and configure the personal wake-up time. In addition to this it is possible for the room service to configure the room status (clean, uncleaned, blocked) by entering a digit sequence.

This status can be reviewed by the reception telephone.

The advantage of a system telephone *COMfort 1000/1200/2000 plus* or *COMfortel 1500/2500* compared with the use of an analog or standard ISDN telephones is e.g. the remote controlled delete function when checking out the guest (privacy protection), the various comfort functions and specifically configured function keys. The functions which are still allowed for room telephones are handled the same way as described for normal telephones. With one exception: A programmable function key configured with the function „hotel room" allows the setting of a wake-up time and the display of call charges and of the check in time. The following functions are also possible:

■ Starting and accepting internal and external calls
■ Delete lists and charges via the menu point „functions" (the call charge meter of the PBX is not influenced)
■ Interrogation of e.g. call charges via the menu point „information"
■ Use of the caller/call/redial list as well as the telephone book (internal telephone number as well as the short-code dial numbers of the PBX are not listed in the telephone book)
■ Sending and receiving of SMS
■ Memo, scheduled call and Power Dialling
■ Interrogation of call charges and setting of the wake-up time with a function key.

The use of the hotel room telephone *COMfort 1000/1200/2000 plus* or *COMfortel 1500/2500* is described in the manual of the system telephone.

Print-out Function: (available only in combination with a serial printer (COMmander Basic.2 and COMmander Business) or an USB printer (COMpact 5020 VoIP)). This function enables the output of the accrued telephone charges as a guest invoice (or informational invoice) with a separate line for each call. This function is controlled by the hotel reception telephone.

Important *Please note, that some providers do not transmit charge information.*
If LCR has been configured for a room telephone (with the LCR method Soft-LCR easy), the charges for these calls may not be determined. If you use the LCR method Soft-LCR 4.0[10] the charges will be calculated by the call duration in combination with the specially generated tariff

tables.
If a hotel guest is manually using an LCR provider to make out-bound calls, the accrued charges can not be billed to him. To avoid manual dialling of a provider these numbers should be added to the Call Restrictor and activated for each hotel room telephone.

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[10]The support of this function on the PBX systems COMmander Basic.2 and COMmander Business will only be available via an up-date at a later date (firmware version 2.0A of the PBX).

Configure the Wake-up Time with the Room Telephone

📞   ✱   🕐   #

4-digit entry of the time

☞ **Advice** *If „0700" was entered, you would receive a wake-up call at 7 o'clock in the next morning. Consequently the wake-up time has to be entered again for a new wake-up at the same time.*

After a „check out" the wake-up time is deactivated for the corre-sponding subscriber.

Invalid entries will not delete an already valid wake-up time.

Delete the Wake-up Time with the Room Telephone

📞   ✱ #

Enter the Room Status with the Room Telephone

📞   ✱ 9 9 1 #

enter room status „clean"

or ✱ 9 9 2 #
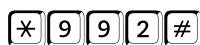
enter room status „uncleaned"

or ✱ 9 9 3 #

enter room status „blocked"

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You as a user have only a limited number of configuration and viewing pages available, configured by the administrator of the PBX. The possible pages are described in the following chapters.

Access to the PBX

To be able to view and change settings via PC, it is necessary to have a connection between your PC and your PBX (e.g. via network).

Minimal System Requirements for the PC

■ PC with Intel Pentium 500 MHz or compatible processor

■ Operation system if using the Ethernet port:
Windows 2000 (with Service Pack 4 or better), Windows XP (with Service Pack 2 or better), Windows Vista, Mac OS X and Linux (SuSE 7.3 or better)

■ Operation system if the USB port is used (only COMmander Basic.2 and COMmander Business):
Windows 2000 (with Service Pack 4 or better) and Windows XP (with Service Pack 2 or better)

■ RAM memory: 128 MB, recommended 256 MB;
for Windows Vista: 256 MB, recommended 512 MB

■ **Recommended** Web browser for the configuration: Microsoft Internet Explorer Version 6.0 or better, Netscape Navigator Version 7.0 or better, Mozilla Firefox Version 2.0 or better;

with the support of HTML 3, HTTP 4.0, Javascript 1.0, CSS 2.0, Ajax

■ USB interface (in case of connection via USB port) according to USB specification 1.1 or 2.0

■ Network controller (in case of an Ethernet connection the PC has to be equipped with a network controller and the corresponding driver has to be installed)

■ Internet protocol TCP/IP (**T**ransmission **C**ontrol **P**rotocol /**I**nternet **P**rotocol)

■ CD-ROM or DVD drive

■ Mouse or compatible pointer device

■ SVGA graphic controller with a 800 x 600 resolution, recommended 1024 x 768 and 65536 colours (16 Bit)

Access to the Webserver and Registration

① Start the Browser (e.g. the Microsoft Internet Explorer).

② Enter the IP address of the PBX (e. g. **http://192.168.0.240**) in the address field of the Browser.

☞ **Advice** *Ask your system administrator about this address. Sometimes also a port address has to be entered (e.g. 8081). In this case the complete address will be e.g.* **http://192.168.0.240:8081**.

③ The Browser settings are checked.
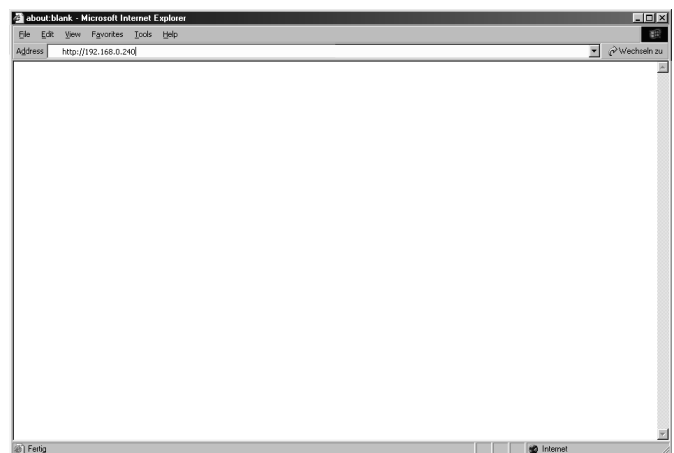
④ Enter your telephone number as user name and in the next line the 6-digit user PIN and click on the button „**_Log-in_**".
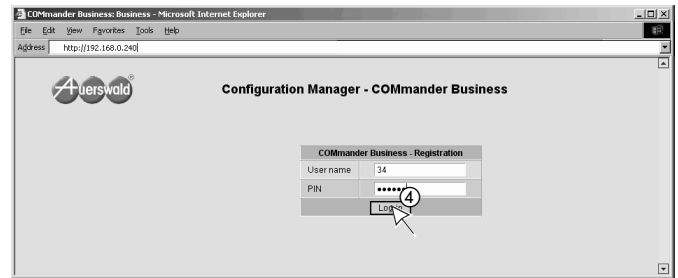
⑤ The configuration manager will open. Now you can see the available program items on the left side. By clicking on the plus sign you can open the folders and look at the underlying configuration and information pages.
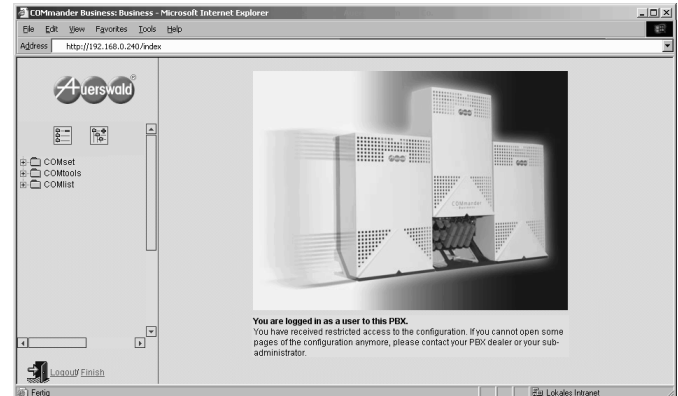
Operation Advice

Help: You can open the online help with the information about the currently viewed page by clicking on the question mark symbol on each page. Inside the online help additional information or help files about other pages can be opened via „additional information" in an alphabetic ordered list.

Log out/Finish: In the bottom left corner there are the two buttons necessary to close the web interface. Via mouse click on „Log out" you can directly return to the registration page. After a mouse click on „Finish" and „OK" the current configuration as well as the window are closed.
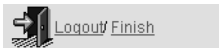
Accept entered Data: Before leaving a page it is necessary – with some exceptions – to confirm your changes via mouse click on the field „Execute" in the action line. This way the displayed data is stored in the PBX. The successful storage of data is shown by a green hook on the storage symbol right at the top of the page.

Entry in a free field: A free field is available for the entry of a name or a number. Click with the left mouse button in the corresponding field and enter a number or a name with the keyboard. Before leaving the page it is necessary to confirm your entries via mouse click on the field „Execute" in the action line. The following signs must not be used: „ “ ' # $ & % < > / \

Change number or name: Click with the left mouse button twice on the entry to be overwritten. It will be marked in blue and can directly be overwritten or deleted with the Delete/Backspace key. Before leaving the page it is necessary to confirm your changes via mouse click on the field „Execute" in the action line.
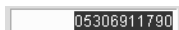
Switch-over Functions: Functions that can do more that switching on/off and have a limited selection of only some options, a preselection has already been done in the field. To change this selection, you have to choose from the popup menu via mouse click. You open the popup menu with the left mouse button on the arrow.

For some functions there are little circles as switches additionally to the listed options. The selected setting is marked with a black point within the circle. The function is switched over via mouse click on an empty circle. The activation of a setting causes the parallel deactivation of all other choices.
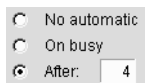
Activate/deactivate Functions: A square represent a switch. An empty square means „out" or „no"; there against a little hook means „on" or „yes". The selection is done with a simple click with the left mouse button.

Add entries in the list: To create new entries in the list, you fill in the empty entry fields in the bottom line of the table and confirm your entries with a mouse click on the field „Execute" in the action line. Then one or more lines are added to the list.

Delete entries in the list: To delete an entry you select „Delete" in the action line first instead of „Accept.". Then you can mark one or more entries in the first table column via mouse click to delete them (little hook in the square).

If you like to select all entries you can activate the little box at the bottom left side of the action bar. Then you delete the marked entries with a mouse click on the field „Execute" in the action line.

Colour schemes: To adapt the interface to the personal taste the PBX is offering four colour schemes. The may be configured for the admin under *Administration* ▶ *Server configuration* and for the individual users under *COMset* ▶ *Internal subscriber (scr)* ▶ *Properties* ▶ *User settings*.

Look at the Telephone Numbers of the PBX

Advice *The viewing of these presented pages can be restricted by the administrator.*

① The telephone numbering plan offers you an overview of the telephone numbers assigned in the PBX. These include the internal telephone numbers of the subscribers, groups, doors and loudspeakers as well as the Short-code dialling numbers.

To open it, click on „*COMset* ▶ *Internal numbers* ▶ *Telephone numbering plan*" in the tree at the left side. The list is sorted according to telephone numbers.

② If you like to sort the list of telephone numbers according to names instead of telephone numbers, you activate this sorting order by clicking on „*Name*" in the popup menu.

③ If you like to sort the list of the telephone numbers according to the type of telephone numbers, that means subscriber, group, doors, loudspeaker and Short-code dialling numbers separately, you activate this sorting order by clicking on „*Type*" in the popup menu.

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View and modify the Properties of your own Subscriber Port

☞ **Advice** *The viewing of these presented pages can be restricted by the administrator.*

① Under „**COMset ▶ Internal numbers ▶ Subscriber (scr) ▶ Properties ▶ Configure**" you can look at the subscriber properties and change them.

② In the column „**Mode**" your subscriber features are presented in an overview.

If the PBX uses several configurations (e.g, for day, night, holidays) and if the administrator did the settings of your telephone according to configurations, you can learn this from the different entries in this list.

A larger part of the functions is probably configured fixed by the administrator (perhaps also depending on the configuration) and has not been released for changes by you. To differentiate these entries they are marked in colours.

Red colour: The setting has not been released by the administrator.

Green writing colour: The setting can be changed by yourself.

☞ **Advice** *If a function is not released for user settings at all (red colour in all configurations), the setting options are coloured in grey in the column „Property".*

③ By clicking on the register you can switch between the different functional blocks.

④ If you like to change a setting (precondition: The corresponding entry is marked in green colour), you have to edit in the column „**Property**".

⑤ Settings that you can modify yourself are presented in the column „**Mode**" in green colour. So if you change a feature, this change will work in all configurations that are in green colour.

If a setting is overridden only in some configurations (e.g. night) by the administrator, you can change the setting in the other configurations (e.g. day). If a setting is overridden in no configuration by the administrator, the setting in all configurations will be changed.

☞ **Advice** *You can also change some of the functions on the register card „User Settings" via telephone. This is described in this manual starting on* *. Information about all other settings can be learned in the online help.*

⑥ If you have done the requested settings on a page, confirm these changes via mouse click on the field „**Execute**" in the action line.

⑦ Then you can check the performed settings in the column „**Mode**".

View and modify the Properties of your own Group

☞ **Advice** The viewing of these presented pages can be restricted by the administrator.

① Under „**COMset ▶ Internal numbers ▶ Groups ▶ Properties ▶ Configure**" you can view the group properties and change them.

② Only if you are member of a group, the button „**Configure**" is offered to you in the column „**Property**". Click it for the group you like to view at or like to change the settings for.

☞ **Advice** How to change the settings or which kind of information you can view on the pages is described in the *chapter View and modify the Properties of your own Subscriber Port on page 58* in detail.

Only the settings for functions Call Forwarding, Parallel Call and Follow-me can be changed.

Look at the Telephone Book of the PBX

Advice *The viewing of these presented pages can be restricted by the administrator.*

① To open the telephone book of the PBX, click on „*COMtools ▶ Telephone book ▶ Overview*" in the tree.

② The telephone book is sorted correspondingly to the Short-code dialling numbers (if existing). If you like to sort the telephone book according to the names or telephone numbers, click on the corresponding headline of the column.

③ If you do not like to scroll through all entries, you are able to set under „*Lines per page*" how many entries you like to look at on one page at the same time. By clicking on the page number buttons you can browse through the single pages. The button of the visible page is marked in a colour.

Copy Telephone Numbers of the PBX Telephone Book into the Telephone Book of a DECT System telephone

Advice *The viewing of these presented pages can be restricted by the administrator.*

① Click on „*COMtools ▶ Telephone book ▶ DECT telephone book*" at the left side of the tree. This page only exists if you have a COMfortel DECT 900 or COMfort DECT 800.

② Activate the telephone book entries in the right column that you like to copy into the telephone book of your COMfortel DECT 900 or COMfort DECT 800.

③ If you have selected the requested entries on one page (the possible total number is stated in the headline of the column), confirm them via mouse click on the field „*Execute*" in the action line.

Now the PBX starts copying the data to the telephone. If the handset is currently not ready for a data transfer (switched off our or out of reach), the PBX will try it later again until the data is transferred. During the data transfer (duration: 1-3 minutes) „Transfer ... Please Wait" is visible in the display.

View Call Restrictor and Call Deblockers

Advice *The viewing of these presented pages can be restricted by the administrator.*

① To open the Call Restrictors and the Call Deblockers, click on „*COMtools ▶ Special numbers ▶ Overview ▶ ...*" at the left side of the tree.

The available Call Restrictors or Call Deblockers are presented.

Enter Wake-up Times for your own Subscriber Port

Advice *The viewing of these presented pages can be restricted by the administrator.*

① Click on „*COMtools ► Wake-up times ► Wake-up times subscriber*" at the left side of the tree.

② Fill in the free entry fields with hours and minutes and add this wake-up time by clicking on the button „*Execute*". Repeat it for additional wake-up times if necessary (a maximum of 20 wake-up times are possible for each user) and perform the other settings.

If you do not fill in the hook in the column „*Always*", the entry will be deleted out of the list after the wake-up call has been executed.

If you do not like to use an entered wake-up time temporarily, do not delete it but deactivate it in the last column.

③ If you change existing wake-up times, confirm them via mouse click on the button „*Execute*" in the action line.

Advice *If a wake-up time has been entered via telephone, it would be shown by a telephone symbol in the column „Configured via".*

④ On which weekdays wake-up times have been configured and activated for your extension, can be viewed under „*COMtools ► Wake-up times ► Overview*".

⑤ To configure e.g. the duration of a wake-up call or the number of repetitions, the pages „*COMtools ► Wake-up times ► General settings*" are available to you.

Important *Please note that all possible settings on this page are valid for all extensions.*

Look at the Call Allowance Account Status

Advice *The viewing of these presented pages can be restricted by the administrator.*

① If a call allowance account has been configured for your telephone, you can view the current status of your account under „*COMtools ▶ Call allowance accounts ▶ Call allowance accounts*". Besides this you can learn how to recharge your account or how often it will be recharged.

Look at Call Data

Advice *The viewing of these presented pages can be restricted by the administrator.*

① Under „*COMlist ▶ Call charge data list*" you can look at the generated call data.

② If you do not like to scroll through all entries, you can configure under „*Lines per page*" how many entries are visible on one page at the same time. By clicking on the page number buttons you can browse through the single pages. The button of the visible page is marked in a colour.

③ By clicking on the corresponding headline of the column you can sort the call data as you like.

④ By selecting an existing filter you can reduce the presented call data list to e.g. the data of the last month.

⑤ If the function „Online name search" has been configured in the PBX, you can extend the call data list of the PBX later with missing names or update existing names if necessary. By clicking on the magnifier in the column „External partner" of the call data list the backward search at www.dasoertliche.de will be started. If an entry was found, the name and address of the call partner will be displayed. There is the option to edit this entry before copying it into the column „external name" of one or all entries with the corresponding number. There is also the option to copy it into the telephone book of the PBX.

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⑥ Under „**COMlist ▶ Print options**" you can reduce the displayed table to the columns being necessary for you. Information on the meaning of the individual columns can be learned in the online help.

⑦ Under „**COMlist ▶ Filter**" you can look at the available filters.

⑧ Click on the button „**View**" of the corresponding filter.

⑨ Now the individual settings of the filter are presented to you.

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⚠️ **Warning**

Touching *the voltage carrying conductors or the tele-phone connections may cause an electric shock **danger-ous to life**. Also individual modules may carry danger-ous ringer voltages during operation.*

– *The case may only be opened by the **authorized dealer**[11].*

– ***Installation work*** *inside the open case as well as **maintenance services** involving the keys inside the case are only allowed to be executed by the **authorized dealer** [11].*

– *Disconnect the **power plug** of PBX (and perhaps also the acces-sory) f**rom the 230 Volt mains socket** before opening the case in any case.*

[11]Authorized dealer: These are persons that are trained for this pur-pose (e.g. certified electricians). For installation work at the COM-mander Business they also have achieved an authorization through a manufacturer training. They must have the necessary knowledge about the work in an area with potentially hazardous voltage. They must also have the knowledge about the latest electrical safety standards and requirements.

Change the PIN

With the following function each PIN of the PBX can be changed – provided that the PIN to be changed is known.

📞 [*][9][9][*] 🔒 Old PIN (6-digit) [*] 🔒 New PIN (6-digit) [*] 🔒 New PIN (6-digit) [#]
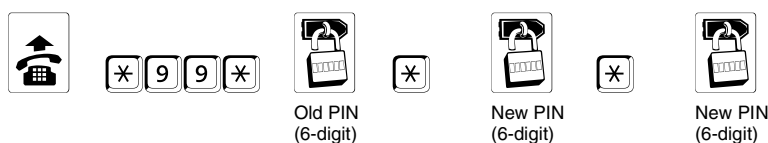
👉 **Advice**
If you hear a busy tone at the end of the entry, the new PIN may be already in use in the PBX. Try again with another digit order.

Set Date and Time

The PBX has an internal clock that offers the system time to the con-nected terminals. If the terminal is able to support this option, this sys-tem time is displayed on the terminal.

Besides this the system time is necessary to execute functions like configuration switching as well as wake-up calls.

The clock may be set via the following function if necessary.

📞 [#][#][8] 🔒 Sub-Admin PIN [*][3][0][0] 🕐 6-digit time: 00-23 (hours) and 00-59 (minutes) and 00-59 (seconds) [#]

📞 [#][#][8] 🔒 Sub-Admin PIN [*][3][0][1] 📅 6-digit date: 01-31 (day), 01-12 (month), 00-99 (year) [#]
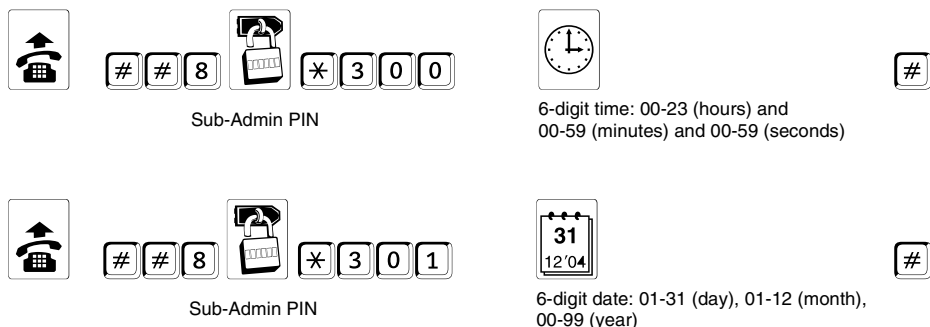
Call the Service Technician and ask for Configuration Changes

If you want to ask your dealer later for changes to the settings of your PBX, it will not be necessary that a service technician comes to your home. The function remote programming enables a service techni-cian, to read the data out of the PBX or to reprogram during an exter-nal telephone connection. He needs your permission of course. And if you give your permission by dialling certain digits described here, the service technician will be able to do the remote diagnosis or the remote programming only for a short time frame.

Release PBX for Remote Configuration (PPP)

📞 [#][#][8] 🔒 Sub-Admin PIN or User PIN [*][9][1][#]
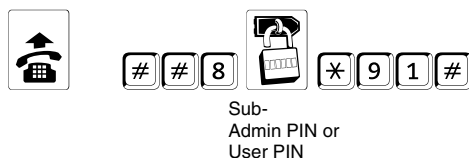
Least Cost Routing (LCR)

The PBX enables you to call easily and without prior thinking via the cheapest available network provider. This is called automatic Least Cost Routing. If LCR is activated for the telephone, the PBX selects the corresponding prefix telephone number of the provider proposed for the corresponding time for each outbound external call and dials it first.

You can select between two different LCR methods:

- With Soft-LCR easy [12] a chargeable [13] update service is available. The tariff tables in the PBX can be update automatically or with the function described later.
- You are responsible yourself for the update of the tariff data with Soft-LCR 4.0 [14]. The tariff tables in the PBX can be updated via Web interface in the configuration manager „Routing".

Start LCR easy-Update

Sub-Admin PIN	Ring-back tone (PBX connects the telephone with the server; app. 2 seconds)	Special tone pulsating in an interrupted manner (connection to the server is activated; app. 16 seconds for 8 providers)

Acknowledge tone (Update was successful)

Important *Before you start the update as here described, Soft-LCR easy [12] has to be installed and configured.*

The update is generating costs. [13]

Advice *If the server is busy or does not take the call (e.g. because you already had the most recent data) there are no charges for you.*

If you immediately hear the busy tone, the server is e.g. busy. Try again later.

If you hear the ring-back tone for 15 seconds and then the busy tone, the server does not accept the call because your data have already been up-to-date. You can enforce an update (e.g. because the number of the telephone providers changed) if you start an update within an hour again.

If you hear a busy tone after the busy tone instead of the acknowledge tone, the update has been interrupted without success (e.g. because of an problem of the server). Then the PBX has no LCR data anymore. The LCR is automatically switched off and only after the next successful update it is activated again.

This update starts automatically and if it is not accepted by the server it is enforced by the PBX and retried. (Exception: If no automatic has been configured, you have to start the update manually.)

You can do a maximum of 5 update tries per day and presented telephone number.

[12] The PC program Soft-LCR easy is a dialer program registered at the Bundesnetzagentur (formerly RegTP) for the premium service number (0 90 09) 00 00 561 described in the next footnote. The program is used for the update of the Least-Cost-Routing tables in the PBX to be able to select the most cost-effective connection for a telephone call automatically. During the installation only the configuration program Soft-LCR easy is installed on the PC. There is no dialling of the premium service number. Only during the activation by the user there will be a dial-in of the premium service number by the PBX itself. With this configuration program the PBX can be configured in such a way that it dials the premium service number in selectable regular intervals to update the LCR tariff tables automatically. The deactivation of the regular dialling of the premium service number can be made with by configuration program Soft-LCR easy in the PBX. The configuration program Soft-LCR easy can be de-installed via the system panel.

[13] The update is done via the premium service number (0 90 09) 00 00 561 (1,86 Euro/ minutes – tact 2 seconds; valid until 3rd of December,2008). The price is a German fixed network price. There is a maximum charge of 0,93 Euro per connection.

[14] The support of this function on the PBX systems COMmander Basic.2 and COMmander Business will only be available via an update at a later date (firmware version 2.0A of the PBX).

Analog Devices

If you like to connect an additional device or to connect another device to a connection box e.g. a telephone instead of a fax machine, please contact your specialized dealer or the supervisor of your PBX. If you like to connect other telephones to the already existing and configured analog connections (e.g. replace a pulse dial telephone by a new DTMF telephone), please pay attention to the following: The analog subscriber connections enable the connection of most of the analog units with pulse dialling or dual-tone multi-frequency dialling (telephone, fax machine, modem, answering machine). Units with a DTMF dialling must have a FLASH key (so-called signal key R).

If you pick up the receiver telephone after having plugged in a new telephone, please dial 7 and hang up. Thanks to this the PBX will learn the dialling mode.

If the new telephone has a dual-tone multi-frequency dialling, check whether the FLASH key was set and set the FLASH period as short as possible (see operation instruction of the telephone). Then you execute the programming described in the following. Subsequent to this the PBX has learned the exact duration of the FLASH time of your telephone. This is very important e.g. for the transfer or Query. Analog telephones that execute certain function via T-Net function key/ menu are using a long FLASH (300 ms). Often an additional FLASH key is available. Configure this also to 300 ms and execute the following programming again.

Learn Flash Timing

📞 `#` `#` `8` `*` `9` `8` `*` `⇕`R `⇕`R `#`
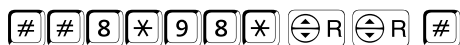
ISDN Devices

If you like to connect an additional device, please contact your specialized dealer or the supervisor of your PBX. If an S_0 bus is connected to the internal S_0 port, there are often more connecting boxes than units but you will need a new internal telephone number for the new device. This must be configured.

If you like to replace one device by another (e.g. telephone by telephone or ISDN PC-controller by ISDN PC-controller), you will also have to pay attention to the fact that a maximum of four devices per S_0 port may get their voltage supply out of the PBX. All the devices should be certified Euro-ISDN units in order to guarantee a proper functionality.

The connecting cable of an ISDN device may have a maximum length of 10 m. It is equipped with a Western plug that you plug into

the ISDN wall jack as shown in Abb. 1. (If you like to unplug the Western plug out of the wall jack again, you will have to press the lever in order to remove it). In case of self powered ISDN devices you have to connect the power supply with the 230 Volt mains.

Then you must enter the MSN into the new unit (see instruction manual of the telephone). This MSN must match with an MSN configured with *COMset* for the internal S_0 port.
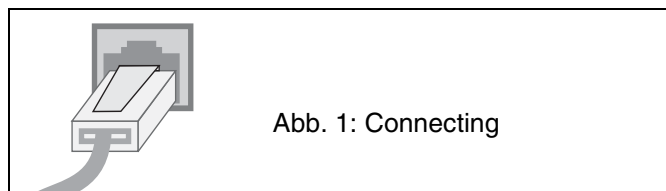
Abb. 1: Connecting

Cleaning of the Casing

Protect the PBX against moisture, dirt, aggressive fluids or steam. Should a cleaning be necessary, wipe the case with a slight humid cloth or use an antistatic fabric. Pay attention by all means that no moisture will enter into the case.

Frequent Problem Sources

The functional richness of the PBX makes it sometimes possible that a function is started unintentionally and by mistake (e.g. by dialling a wrong number sequence). It is also possible that you dialled an incorrect programming sequence and start a function that has an unknown effect to you.

Or you have no knowledge about the authorizations and rights of the subscribers.

Sometimes problems that are suspected to be in the PBX are actually problems located in the telephone (e.g. ringer switched off, no MSN entered). There might also be problems with power failures or the exchange lines.

The following chapters will assist you in finding minor problems yourself. If you are still not finding a solution here, please contact your dealer or the supervisor of the PBX.

You are hearing an unexpected Tone

Various tones in the receiver are signalling various operating modes of the PBX.

At the end of a programming you hear e.g. the acknowledge tone as a prove of successful execution. If you hear a busy tone, it indicates that there was an error during the operation or a missing authorization.

The internal dial tone after picking up the receiver or after pressing the FLASH- or R-key is signalling that you can start to dial a number.

You are not hearing a Dial Tone after Picking up the Receiver

① Please check the wiring and plugs. Please also check the telephone.

② If you have this problem with an ISDN telephone, you did not enter the corresponding internal telephone number as first MSN into the telephone. Try to correct this problem. Make sure that this MSN is presented to the *PBX* later (see manual of the telephone).

③ Disconnect the telephone from the *PBX* for 5 seconds **and** an eventually existing external power supply (Pull the plug). If the problem is solved, the telephone had a malfunction.

④ If this problem exist for all internal telephones, check whether there is a power outage or whether the power plug of the PBX has been removed from the socket. If not, contact your authorized dealer or the support of your PBX.

Your are hearing the Busy Tone after picking up the Receiver on a Direct Exchange Line Telephone

① All available public exchange lines are busy.

You are hearing a pulsating Tone (Special Dial Tone) after Picking up the Receiver

① Eventually a subscriber Call Forwarding has been configured for the telephone. You can switch this function off, if unwanted (p. 32).

② Eventually a Do-not-Disturb service has been configured for the telephone. You can switch this function off, if unwanted (p. 41).

③ Please check, if the filling status of the call data memory has exceeded 80%.

You are hearing a pulsating Tone (Special Dial Tone) for 2 seconds after Picking up the Receiver

① An automatic dialling has been configured for the telephone. You can switch this function off, if unwanted (see p. 41).

You are hearing a pulsating Tone (Special Dial Tone) after logging into a Group

① Eventually a group Call Forwarding has been configured for the group.

You are hearing a Clicking/Breaking after Picking up the Receiver

① If this is an analog telephone, the „call charge transmission immediately" has been activated with the configuration program *COMset*. You will hear these charge unit pulses for the previous call after picking up the receiver (particularly, if it was an expensive long distance call).

② Check the curled cord of the receiver for defects.

Telephoning impossible

The most important requirement for telephoning is the presence of a dial tone after picking up the receiver. If this is not the case, the previous chapter will help you.

If an external call is not possible with your telephone, please check, if this problem is also existing on other internal telephones or if dialling a different external number is possible.

No external Call possible

① Please check the exchange line authorization for these subscribers.

② Please check, if there is a call allowance configured for these subscribers and if the account is empty.

③ If you have this problem with all internal telephones, check if the connections of the PBX to the ISDN has been disconnected (NT or external S_0 bus). If not, please contact your authorized dealer or the support of your PBX.

Telephony is not possible on the ISDN or System telephone

① If you hear the busy tone after picking up the receiver, eventually both voice channels of the internal S_0 ports are busy. Try again later.

② You might not have entered the corresponding internal telephone number as first MSN into the telephone. Try to correct this problem. Make sure that this MSN is presented to the *PBX* later (see manual of the telephone).

③ Disconnect the telephone from the *PBX* for 5 seconds **and** an eventually existing external power supply (Pull the plug). If the problem is gone, the telephone had a malfunction.

The Telephone cannot be called

Check if your telephone is really not reachable. Try to make a call from another internal telephone to you telephone.

No internal and external Calls

① Eventually a subscriber Call Forwarding has been configured for the telephone. You can switch this function off, if unwanted (see p. 32).

② If the telephone is permanently busy, perhaps the Do-not-Disturb was activated. Switch it off if this is not needed (see p. 41).

③ Please check if the ringer of the telephone is deactivated.

④ Disconnect the corresponding telephone from the PBX **and** the external power supply (Pull the plug) for app. 5 seconds. If the problem is solved, the telephone had a malfunction.

No incoming external Calls, but Calls from internal Telephones are possible

① Eventually a MSN/DDI Call Forwarding has been configured. You can switch this function off, if unwanted (see p. 39).

② Please check if the telephone has the necessary exchange line authorization for external calls (in this case no external calls can be started on this telephone).

③ If you have this problem with all internal telephones, check if the connections of the PBX to the ISDN has been disconnected (NT or external S_0 bus). If not, please contact your authorized dealer or the support of your PBX.

No incoming Calls to the Group Number

① To receive calls to the group number, you have to log in as a group member „incoming" (see p. 45).

② To be able to log into a group, your telephone has to be configured as member of the group.

③ Eventually a group Call Forwarding has been configured for the group.

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No external Calls are reaching an internal Target Telephone with a Call Forwarding activated

① Please check if the telephone has the necessary exchange line authorization for external calls (in this case no external calls can be started on this telephone).

Query or Transfer not possible

If you are already in a call status with another subscriber (internal or external), you have to press the Flash key (signal key, R key) on a DTMF telephone first, before you dial a number e.g. to transfer. In this manual the flash key is presented with the symbol ⌨R.

The flash key does not exist on a pulse dial telephone and is also not necessary. If you have connected an PD telephone to your PBX, you will not have to press the flash key.

Pressing the FLASH key disconnects the Caller

① The FLASH duration of the telephone is too long. Modify the settings of the telephone (see manual of the telephone) or the settings of the PBX with the function „learn FLASH time" (see).

Pressing the FLASH key leaves you in the first Call

① The FLASH duration of the telephone is too short. Modify the settings of the telephone (see manual of the telephone) or the settings of the PBX with the function „learn FLASH time" (see).

② The FLASH-key of your telephone is configured as EARTH-key and not as FLASH-key (see manual of the telephone).

A Query is not possible via T-Net-Function Key/Menu

① Analog telephones equipped with T-Net-function keys or menus are using a long FLASH (300 ms). Eventually your *PBX* is not configured for this FLASH timing. Most of the time an additional FLASH-key is available at the telephone. Configure this key also for 300 ms (see manual of the telephone) and let the PBX learn the FLASH timing (see).

You try a Query from an external Call to an internal Call and hear the busy Signal

① The called party is probably talking. Try again later.

② Please check if the telephone has the necessary exchange line authorization for external calls (in this case no external calls can be started on this telephone).

ISDN Telephone is ringing after putting the Receiver on-hook and you are reconnected

① Please check with the manual of your telephone, if „Transfers on a PBX" is activated. If not, try to correct this problem.

Pick-up is not possible

Depending on the assigned authorization of your telephone you can do a pick-up of any available telephones, only for telephones within your group or not at all.

Busy Tone during Pick-up for external Call

① Please check if the telephone has the necessary exchange line authorization for external calls. In this case a pick-up of an external call is not also possible.

Busy Tone during Pick-up on the internal S_0 Port

① Probably both voice channels of the internal S_0 ports are busy.

Pick-up takes over ongoing Calls to another Telephone

① The Takeover function and Pick-up use the same functional procedure. „Conversation may be taken over" should be deactivated for all telephones. The permission for a Takeover is only useful for answering machines.

PBX is not programmable

The settings corresponding to your telephone can be done with the functions for standard telephones described in this manual or via webserver.

For the functions via telephone the corresponding PINs are necessary. For the changes of the settings via webserver you need a user PIN in any case.

Via the Webserver no changes are possible

① The settings of certain functions or of all functions for the corresponding telephone may have been forbidden.

On a certain Telephone no programming is possible

① The settings of certain functions or of all functions for the corresponding telephone may have been forbidden.

GPL and LGPL

Part of the software of the PBX is based on public domain software, that can be used under the conditions of GNU GENERAL PUBLIC LICENSE and GNU LESSER GENERAL PUBLIC LICENSE stated in the following. This refers to the following software:

- oRTP
- ppp
- strace
- The busybox swiss army knife of embedded linux
- The GNU C library
- The GNU oSIP library
- The iptables packet filter and NAT software
- The Linux operating system kernel
- U-Boot
- udhcp
- utelnetd, A small Telnet daemon

GNU GENERAL PUBLIC LICENSE (GPL)
Version 2, June 1991

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Preamble

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Jean-loup Gailly jloup@gzip.org

Mark Adler madler@alumni.caltech.edu

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Telephoning

Alarm -> page 25

Confirm alarm within 60 seconds with DTMF digit „0"

Take waiting Call/reject it -> page 10

Take waiting call and put ongoing call on hold (start Query)

Take waiting call and finish ongoing call

Reject waiting call to continue ongoing call undisturbed

Announcement/Handsfree mode -> page 20

Call system telephone for InterCom Announcement

Call system telephone for InterCom/ Handsfree Mode

Call audio output

Call Through -> page 25

Call external connection through PBX

Call external connection through PBX (using Short-Code Dial Number)

Call internal subscriber or internal group of the PBX

Start a call -> page 11

Call internal telephone

Knock internally (if busy wait for 5 seconds)

Call external telephone

Request exchange line access (exchange line connection)

Start external call with number presentation restricted

Start external call with private exchange line access

Start external call with private exchange line access (without PIN)

Start external call with project assignment

Start ext. call with a certain MSN

Start ext. call with a certain VoIP account

Conference -> page 19

Start conference call

Finish conference call completely

Connect both conference call partners

Back to the previous active call partner (Query)

Back to the previous call partner on hold (Query)

Pick-up and Take over -> page 10

Another internal Telephone rings – Pick-up

Take Call from Answering Machine

Query and Alternation -> page 15

Start external Query

Start internal Query

Cancel Query on no Reply

In a Query talk to both call partners individually (**Alternation**)

In a Query disconnect the call on hold and continue with the active call

In a Query disconnect the active call and continue with the call previously on hold

In a Query connect both call partners by hanging up

Query and 3rd Call -> page 18

Start 3rd call with external connection

Start 3rd call with internal telephone

Finish 3rd call and return to the previously active call partner (query)

Finish 3rd call and return to the call partner previously on hold (Query)

Connect the 2nd and 3rd call partner - then talk with the 1st call partner

Disconnect 1st and 2nd call – then talk with the 3rd call partner

Start Recall/Exchange Line Reservation -> starting page 13

Start Recall on Busy (internal/external)

Delete Recall on Busy

On Busy: Reserve Exchange Line for the next call

Door Terminal Call -> page 21

Call door terminal

Start internal Query call to call door terminal

Open the door during door terminal call

Start internal Query call during door terminal call

Connect door terminal call

Transfer -> page 16

Connect both call partners by hanging up

Connect both call partners

Put a call into an internal parking zone (**Call Parking**) and take it with another telephone again.

Connect external Call to internal telephone without announcement (**Blind Transfer**)

Put the external caller into the Waiting Loop if transfer was unsuccessful

Settings

Alarm -> page 30

Activate one-time alarm from an internal telephone (Sub-Admin PIN, no. of the alarm contact)

Activate repetitive alarm from an internal telephone (Sub-Admin PIN, no. of the alarm contact)

Deactivate alarm from an internal telephone (Sub-Admin PIN, no. of the alarm contact)

Activate one-time alarm from an external telephone (Telephone number for remote switching/ programming, external PIN, no. of the alarm contact)

Activate repetitive alarm from an external telephone (Telephone number for remote switching/ programming, external PIN, no. of the alarm contact)

Deactivate alarm from an external telephone (telephone number for remote switching/ programming, external PIN, no. of the alarm contact)

Alarm announcements -> page 42

Record alarm announcement (No. 1[6]-4[9] of the announcement, Sub-Admin PIN)

Listen to alarm announcement (No. 1[6]-4[9] of the announcement, Sub-Admin PIN)

Delete alarm announcement (No. 1[6]-4[9] of the announcement, Sub-Admin PIN)

Automatische Zentrale -> ab page 50

`#` `#` `8` 🔒 `*` `5` `6` `4` `*` [0...9] `*` 📞 `*` 🎙 `#` 📞 — Record announcement for automatic reception (No. 1-9 and 10[0] of the announcement, Sub-Admin PIN).

`#` `#` `8` 🔒 `*` `5` `7` `4` [0...9] `#` 📞 — Listen to announcement for automatic reception (No. 1-9 and 10[0] of the announcement, Sub-Admin PIN).

`#` `#` `8` 🔒 `*` `5` `5` `4` [0...9] `#` — Delete announcement for automatic reception (No. 1-9 and 10[0] of the announcement, Sub-Admin PIN).

Do-not-disturb -> page 34
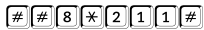
`#` `#` `8` `*` `2` `1` `1` `#` — Switch on Do-not-disturb.
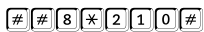
`#` `#` `8` `*` `2` `1` `0` `#` — Switch off Do-not-disturb.

`#` `#` `8` 🔒 `*` `2` `2` `1` `#` — Activate Call Deblocker incoming (User PIN)

`#` `#` `8` 🔒 `*` `2` `2` `0` `#` — Deactivate Call Deblocker incoming (User PIN)

`#` `#` `8` 🔒 `*` `2` `3` `1` `#` — Activate Call Restrictor incoming (User PIN)

`#` `#` `8` 🔒 `*` `2` `3` `0` `#` — Deactivate Call Restrictor incoming (User PIN)

Call Forwarding (Subscriber) -> page 26

`*` `2` `1` `*` 🏠 `#` — Configure subscriber CF immediately (internal destination telephone number)

`*` `2` `1` `*` 🏠 `#` — Configure subscriber CF immediately (external destination telephone number)
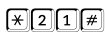
`*` `2` `1` `#` — Activate subscriber CF immediately
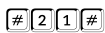
`#` `2` `1` `#` — Deactivate subscriber CF immediately

`*` `6` `7` `*` 🏠 `#` — Configure subscriber CF on busy (internal destination telephone number)

`*` `6` `7` `*` 🏠 `#` — Configure subscriber CF on busy (external destination telephone number)
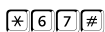
`*` `6` `7` `#` — Activate subscriber CF on busy
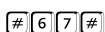
`#` `6` `7` `#` — Deactivate subscriber CF on busy

`*` `6` `1` `*` 🏠 `#` — Configure subscriber CF on no response (internal destination telephone number)
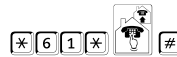
`*` `6` `1` `*` 🏠 `#` — Configure subscriber CF on no response (external destination telephone number)
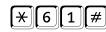
`*` `6` `1` `#` — Activate subscriber CF on no response
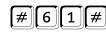
`#` `6` `1` `#` — Deactivate subscriber CF on no response

Call Forwarding (Group) -> page 29

`#` `#` `9` `7` 📞 `#` `*` `2` `1` `*` 🏠 `#` — Configure group CF immediately (telephone number to be forwarded, internal destination telephone number)

`#` `#` `9` `7` 📞 `#` `*` `2` `1` `*` 🏠 `#` — Configure group CF immediately (telephone number to be forwarded, external destination telephone number)

`#` `#` `9` `7` 📞 `#` `*` `2` `1` `#` — Activate group CF immediately (telephone number to be forwarded)

`#` `#` `9` `7` 📞 `#` `#` `2` `1` `#` — Deactivate group CF immediately (forwarded telephone number)

`#` `#` `9` `7` 📞 `#` `*` `6` `7` `*` 🏠 `#` — Configure group CF on busy (telephone number to be forwarded, internal destination telephone number)

`#` `#` `9` `7` 📞 `#` `*` `6` `7` `*` 🏠 `#` — Configure group CF on busy (telephone number to be forwarded, external destination telephone number)

`#` `#` `9` `7` 📞 `#` `*` `6` `7` `#` — Activate group CF on busy (telephone number to be forwarded)

`#` `#` `9` `7` 📞 `#` `#` `6` `7` `#` — Deactivate group CF on busy (forwarded telephone number)

`#` `#` `9` `7` 📞 `#` `*` `6` `1` `*` 🏠 `#` — Configure group CF on no response (telephone number to be forwarded, internal destination telephone number)

`#` `#` `9` `7` 📞 `#` `*` `6` `1` `*` 🏠 `#` — Configure group CF on no response (telephone number to be forwarded, external destination telephone number)

`#` `#` `9` `7` 📞 `#` `*` `6` `1` `#` — Activate group CF on no response (telephone number to be forwarded)

`#` `#` `9` `7` 📞 `#` `#` `6` `1` `#` — Deactivate group CF on no response (telephone number to be forwarded)

Call Forwarding (MSN/DDI) -> page 32	
# # 9 6 📞 # * 2 1 * 💡	Configure MSN/DDI CF immediately (telephone number to be forwarded, external destination telephone number)
# # 9 6 📞 # * 2 1 #	Activate MSN/DDI CF immediately (telephone number to be forwarded)
# # 9 6 📞 # # 2 1 #	Deactivate MSN/DDI CF immediately (telephone number to be forwarded)
# # 9 6 📞 # * 6 7 * 💡	Configure MSN/DDI CF on busy (telephone number to be forwarded, external destination telephone number)
# # 9 6 📞 # * 6 7 #	Activate MSN/DDI CF on busy (telephone number to be forwarded)
# # 9 6 📞 # # 6 7 #	Deactivate MSN/DDI CF on busy (telephone number to be forwarded)
# # 9 6 📞 # * 6 1 * 💡	Configure MSN/DDI CF on no response (telephone number to be forwarded, external destination telephone number)
# # 9 6 📞 # * 6 1 #	Activate MSN/DDI CF on no response (telephone number to be forwarded)
# # 9 6 📞 # # 6 1 #	Deactivate MSN/DDI CF on no response (telephone number to be forwarded)

BabyCall -> page 33	
* 5 3 * 📞 #	Configure BabyCall/hotline (internal destination telephone number)
* 5 3 * 💡 #	Configure BabyCall/hotline (external destination telephone number)
* 5 3 #	Activate BabyCall/hotline
# 5 3 #	Deactivate BabyCall/hotline
* # 5 3 #	Check activation
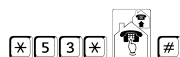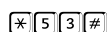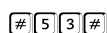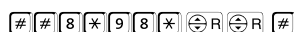
Flash-Time -> page 55I	
# # 8 * 9 8 * R R #	Learn Flash-time

Follow-me -> page 35	
# # 8 * 1 9 1 📞 #	Configure internal Follow-me on the internal destination telephone (telephone(s) to be forwarded/group)
# # 8 * 1 9 0 #	Deactivate all forwardings directed to this telephone on the internal destination telephone
# # 8 * 1 9 1 📞 * 📞 #	Configure internal Follow-me from any internal telephone (telephone(s) to be forwarded/group, internal destination telephone number)
# # 8 * 1 9 1 📞 * 💡 #	Configure external Follow-me from any internal telephone (telephone(s) to be forwarded/group, external destination telephone number)
# # 8 * 1 9 0 📞 #	Delete Follow-me from any internal telephone (telephone(s) to be forwarded/group)
💡 # # 8 🔒 * 1 9 1 📞 * 📞 #	Configure internal Follow-me from external telephone (tel.no. for remote switch./programming, external PIN, telephone/group to be forwarded, internal destination telephone number)
💡 # # 8 🔒 * 1 9 1 📞 * 💡 #	Configure external Follow-me from external telephone (tel.no. for remote switch./programming, external PIN, telephone/group to be forwarded, external destination telephone number)
💡 # # 8 🔒 * 1 9 0 📞 #	Delete Follow-me from external telephone (tele.no. for remote sw./programming, external PIN, forwarded telephone(s)/group)
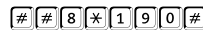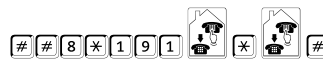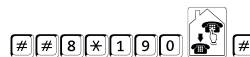
Call Charges -> page 39	
# # 8 🔒 * 9 2 1 #	Start LCR update (Sub-Admin PIN)
# # 8 🔒 * 7 4 📞 * 0 ... 99998 #	Set account to 0-99998 currency units (e.g. Cent) (Sub-Admin PIN, internal subscriber)
# # 8 🔒 * 7 4 💡 * 9 9 9 9 9 #	Set account to „unlimited" (Sub-Admin PIN, internal subscriber)
# # 8 * 2 7 0 #	Stop Call Charge Data printout
# # 8 * 2 7 1 #	Start Call Charge Data printout
# # 8 🔒 * 5 1 #	Delete individual call data sets (User PIN)
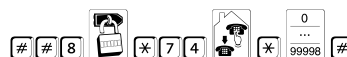
Groups -> page 37
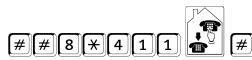
8 * 4 1 1 [phone]
Log in incoming to a group (internal telephone number of the group)
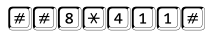
8 * 4 1 1
Log in incoming to all groups

8 * 4 1 0 [phone]
Log out incoming of a group (internal telephone number of the group)
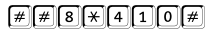
8 * 4 1 0
Log out incoming of all groups
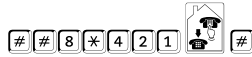
8 * 4 2 1 [phone]
Log in outbound to a group (internal telephone number of the group)

8 * 4 2 0
Log out outbound
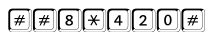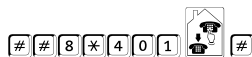
8 * 4 0 1 [phone]
Log in incoming and outbound to a group (internal telephone number of the group)
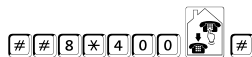
8 * 4 0 0 [phone]
Log out incoming and outbound of a group (internal telephone number of the group)

8 * 4 0 0
Log out incoming and outbound of a group
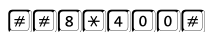
8 * 4 8 0 [phone]
Log out all the members of a group (internal telephone number of the group)

Configurations (Day, night etc.) -> page 38
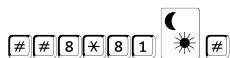
8 * 8 1 [config]
Switch configuration from an internal telephone (No. of the configuration)

[external phone] # # 8 [PIN] * 8 1 [config] #
Switch configuration from an external telephone (telephone number for remote switching, external PIN, no. of the configuration)

Change PIN -> page 54

* 9 9 * [PIN] * [PIN] * [PIN] #
Change PIN (old PIN, new PIN, new PIN)

Release Programming via S₀ -> page 54

8 [PIN] * 9 1
Release programming (User PIN or Sub-Admin PIN)

Room Monitoring -> page 35
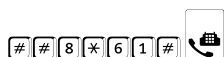
8 * 6 1 # [phone]
Start Room Monitoring to listen into the room later.

[internal] [phone]
Call configured telephone from internal telephone and perform Room Monitoring.

[external phone] # # 8 [PIN] * 6 0 # [phone]
Perform Room Monitoring from external telephone (telephone number for Remote Switching/programming, external PIN)

Relay -> page 23

8 * 2 6 [relay]
Activate relay with the operation modes „staircase light, door opener, alarm indication light, siren, PC relay" from internal telephone (relay number)

[external phone] # # 8 [PIN] * 2 6 [relay] #
Activate relay with the operation modes „staircase light, door opener, alarm indication light, siren, PC relay" from external telephone (telephone number for remote switching, external PIN, relay number)
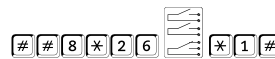
8 * 2 6 [relay] * 1
Activate relay with the operation mode „depending on configuration" from internal telephone number (relay number)
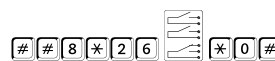
8 * 2 6 [relay] * 0
Deactivate relay with operation mode „depending on configuration" from internal telephone (relay number)

[external phone] # # 8 [PIN] * 2 6 [relay] * 1 #
Activate relay with operation mode „depending on configuration" from external telephone (telephone number for remote switching/programming, external PIN, relay number)

[external phone] # # 8 [PIN] * 2 6 [relay] * 0 #
Deactivate relay with operation mode „depending on configuration" from external telephone (telephone number for remote switching/programming, external PIN, relay number)

Announcement before Answering -> page 41
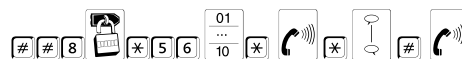
8 [PIN] * 5 6 [01...10] * [phone] * [mic] # [phone]
Record Announcement before Answering (No. 1-10 of the announcement, Sub- Admin PIN)

8 [PIN] * 5 7 [01...10] # [phone]
Listen to Announcement before Answering (No. 1-10 of the announcement, Sub-Admin PIN)

8 [PIN] * 5 5 [01...10]
Delete Announcement before Answering (No. 1-10 of the announcement, Sub-Admin PIN)

Time -> page 54

8 [PIN] * 3 0 0 [clock]
Set time (Sub-Admin PIN, time 6-digit hhmmss)

8 [PIN] * 3 0 1 [calendar]
Set date (Sub-Admin PIN, date 6-digit ttmmjj)

Music on Hold -> page

`# # 8` 🔒 `* 5 6 3 2 *` 📞 `* ✋ #` — Fade in internal Music on Hold (Sub-Admin PIN)

`# # 8` 🔒 `* 5 5 3 2 #` — Delete internal Music on Hold (Sub-Admin PIN)

`# # 8` 🔒 `* 5 6 3 1 *` 📞 `* 🎤 #` 📞 — Record Music on Hold announcement (Sub-Admin PIN)

`# # 8` 🔒 `* 5 5 3 1 #` — Delete Music on Hold announcement (Sub-Admin PIN)

`# # 8` 🔒 `* 5 7 3 0 #` 📞 — Deactivate Music on Hold and announcement (Sub-Admin PIN)

`# # 8` 🔒 `* 5 7 3 1 #` 📞 — Activate only announcement without Music on Hold and listen to it (Sub-Admin PIN)

`# # 8` 🔒 `* 5 7 3 2 #` 📞 — Activate only internal Music on Hold without announcement and listen to it (Sub-Admin PIN)

`# # 8` 🔒 `* 5 7 3 3 #` 📞 — Activate internal Music on Hold mixed with announcement and listen to it (Sub-Admin PIN)

`# # 8` 🔒 `* 5 7 3 4 #` 📞 — Activate only external Music on Hold without announcement and listen to it (Sub-Admin PIN)
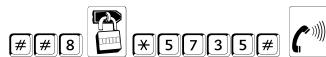
`# # 8` 🔒 `* 5 7 3 5 #` 📞 — Activate external Music on Hold mixed with announcement and listen to it (Sub-Admin PIN)

Wake-up Announcements -> page 42
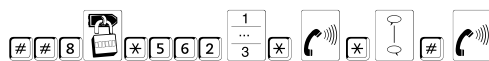
`# # 8` 🔒 `* 5 6 2` [1...3] `*` 📞 `* 🎤 #` 📞 — Record wake-up announcement (No. 1-3 of the announcement, Sub-Admin PIN)
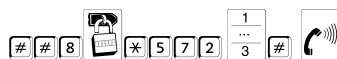
`# # 8` 🔒 `* 5 7 2` [1...3] `#` 📞 — Listen to the wake-up announcement (No. 1-3 of the announcement, Sub-Admin PIN)

`# # 8` 🔒 `* 5 5 2` [1...3] `#` — Delete wake-up announcement (No. 1-3 of announcement, Sub-Admin PIN)

Wake-up Function -> page 36

`# # 8` 🔒 `* 3 1` 🕐 [1...7] `#` — Activate one-time wake-up with wake-up time for the next Mo = 1, Tu = 2, ... or Su = 7 (User PIN)

`# # 8` 🔒 `* 3 1` 🕐 `8 #` — Activate one-time wake-up with wake-up time for the next Sa and Su (User PIN)

`# # 8` 🔒 `* 3 1` 🕐 `9 #` — Activate one wake-up with the wake-up time for the next Mo, Tu, Wed, Thur and Fr. (User PIN)

`# # 8` 🔒 `* 3 1` 🕐 `0 #` — Activate one wake-up with wake-up time for the next Mo, Tu, Wed, Thur, Fr, Sa and Su (User PIN)

`# # 8` 🔒 `* 3 2` 🕐 [1...7] `#` — Activate repetitive wake-ups with wake-up time for Mondays = 1, Tuesdays =2, ... or Sundays = 7 (User PIN)

`# # 8` 🔒 `* 3 2` 🕐 `8 #` — Activate repetitive wake-ups with wake-up time for Saturdays and Sundays (user PIN).

`# # 8` 🔒 `* 3 2` 🕐 `9 #` — Activate repetitive wake-ups with wake-up time for Mondays to Fridays (User PIN)
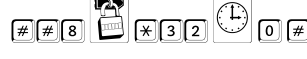
`# # 8` 🔒 `* 3 2` 🕐 `0 #` — Activate repetitive wake-ups with wake-up time for each day (User PIN)

`# # 8` 🔒 `* 3 3 #` — Delete all own wake-up times (User PIN)

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`*` 🕐 `#` — Configure the wake-up time for a one-time wake-up call.

`* #` — Delete a wake-up time.
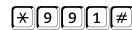
`* 9 9 1 #` — Enter the room status „clean".
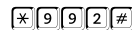
`* 9 9 2 #` — Enter the room status „unclean".

`* 9 9 3 #` — Enter the room status „blocked".

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