



family

***Gebrauchsanleitung
instructions for use***

Explanation of the pictograms and buttons



Acoustic calling signal (tone call)



Lift the receiver



Enter the telephone numbers and/or code numbers



Signal tone in the receiver



Make a call



Put down the receiver



Conference



Signal button for inquiry during a call

(flash with multifrequency telephones, programmed numbers with pulse dialling ones)



to



,



Number button for entering code digits



Caution! Warning of general danger



Warning! dangerous voltage



General information and tips



Important notice

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1. Introduction

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If you have not yet installed your telecommunication unit, do so following the description in the "Installation and Programming" book. You can then use the telephone unit following the instructions in this book.

By choosing a GESKO ISDN telecommunications unit, you have purchased a device that leaves nothing to be desired in terms of quality, design or value for money. It enables you to use ISDN features even with analogue terminal devices (telephones, fax machines, telephone answering machines and modems). With external Euro-ISDN base connections, five to eight analogue extensions, an internal ISDN multipoint interface (family 116 only) as well as the opportunity to connect a door intercom system, it represents the ideal unit for private households, or for small companies and services, doctor's surgeries and lawyer's offices who have decided to move into ISDN.

The advantages of using ISDN are quite clear:

- Two external telephone calls can be made at the same time on each ISDN connection
- Calls can be transferred to another telephone number
- Direct dialling to all extensions.
- Using the "hold for inquiry/alternate" function you can shift from one call to another.
- Telephone conference call with two external parties.

You can operate the analogue terminal devices attached to the telephone unit either by pulse or multifrequency (DTMF) dialling. In the case of pulse dialling, each digit is allocated to a set number of short interrupts. When dialling, you can hear these interruptions in the telephone receiver. With DTMF (multifrequency), the faster dialling method, each digit is allocated a specific tone.

To enter the inquiry mode or to alternate (toggle) between calls, your telephone will require a "Hold for inquiry" (call back) button. The telephone unit also supports the flash function, and (with pulse dialling telephones) a programmable digit for the inquiry (See section 1.3, "Hold for inquiry (call-back) button").

If you use telephones that support CLIP (CLIP displays the number of the person who is calling), the GESKO unit will tell you who is calling as soon as the telephone starts to ring. Details on this in section 4.1.26, "Display of the caller's telephone number" in the "Installation and programming" book.

1.1 Notes on the operating instructions

The instructions for use come in two parts - the "Installation and programming" and the "Instructions" books. The book provides instructions on how to use your telecommunication unit. The other book explains how to install and program it.

This part of the operating instructions, "Instructions" is split into three sections. The first section provides a brief introduction to your telecommunication unit. Section 2 explains how to use it. Section 3 provides an overview of the features and the corresponding operational procedures, as well as a summary of programming procedures and an index.

The search for functions and features is made easier by the detailed content summaries at the start of each section. The index and the section numbering at the page margins also help to make things clear.

1.2 General information about the telecommunication unit

If the unit does not work one day...

- Use the operating instructions book to check you are operating the unit correctly.
- Check the programming.
- See whether the terminal device and the telephone unit have been connected properly. Do not remove the upper part of the casing!
- If you are unable to correct the problem, please contact your dealer.
- In the event of a power failure you only be able to make an outgoing call if you have an ISDN telephone with an emergency power supply on the internal S₀ bus (family 116 only). Once the mains voltage has been

restored, the unit will function according to the previously installed program. The telephone unit stores all the data, with the exception of the internal call-backs, the reserved trunk lines and the dialling method of the terminal devices.

If you have not yet installed your telecommunication unit, do so as described in the "Installation and Programming" book. You can then use the telephone unit following the instructions in this book.

Power failure and emergency power supply

Your family 116 telecommunication unit is equipped with a mains failure relay. This means that if there is a power failure, a direct connection will be made between the network terminations of your external S_0 port and the internal S_0 bus, so that you can use a programmed telephone operated by an emergency power supply. Refer to the operating instructions of your ISDN telephone for details of how to program its emergency power supply feature. Also note that no other ISDN device connected to the internal S_0 bus may be programmed to use the emergency power supply.

Configuration levels

The Gesko telecommunication unit has three hardware configuration levels with the following connection interfaces:

	105	108	116
External ISDN S_0 bus	1	1	1
Internal ISDN S_0 bus	-	-	1
- analogue a/b extensions	5	8	6
- door intercom system (interface)	1	1	1

The features are identical for all configuration levels, the units differ only in the number of interfaces to external devices.

These operating instructions apply for all versions of the telecommunication unit. Where there are particular differences in programming and operation this will be pointed out at the appropriate part of the text. Where there are any particular differences between the models in terms of programming and operation this will be pointed out at the appropriate part of the text. This means for instance, that (for example) with the family 105, details can only be referred to for 5 analogue telephones, and that the internal S_0 bus can only be programmed with the family 116 unit.

Telephone number assignment

When the unit is delivered, the internal users have the following telephone numbers. These are also the port numbers to be dialled when the internal extensions are called.

	analogue telephones	door intercom	internal S_0 users
105	11 to 15	27	-
108	11 to 18	27	-
116	11 to 16	27	30 to 39

You can change these numbers at your discretion. However they must have two digits (i.e. be between 10 and 99). Throughout these operating instructions, only the factory default numbers are used. If you have assigned other numbers, you must of course use them for operation and programming.

The terminal devices on the internal S_0 bus (family 116 only) must be programmed for the corresponding multiple subscriber numbers (MSNs). In other words, the telephone numbers assigned (or provided as factory defaults) must be entered in the terminal as MSNs. If you do not enter any MSN in your ISDN telephone unit (or enter one that is invalid), the functions available with the telephone may be restricted.

Analogue / ISDN telephones

You can connect both conventional analogue telephones and digital ISDN telephones to your family 116 telecommunication unit. An internal bus has been laid for the ISDN telephones. On this bus, the telephones can be inserted in the installed junction boxes. The junction boxes (connection boxes) for the analogue telephones are each directly connected with the connection terminals in the telecommunication unit. The exact procedure is described in sections 5.4 and 5.5 "Connecting the lines" and "Connecting the internal S_0 bus".

The operating instructions describe how to use the unit with analogue telephones. The use of the specific features of individual ISDN telephones on the internal S_0 bus may deviate from the description given here. Read the details in the operating instructions for your telephone and pay attention to the notes describing the individual features.

You can only connect analogue telephones to the family 105 and family 108 telecommunication units, as these do not have an internal S_0 bus.

1.3 Hold for inquiry (call-back) button

To be able to use all the features of your telecommunication unit, e.g. transferring a call to another user or calling up ISDN features in your exchange, you need to have a telephone equipped with a hold for inquiry (call back) button. For telephones with multifrequency (DTMF) dialling, this is usually the flash or recall (R) button (see section 5.9, "Setting the correct flash time ..." in the "Installation and programming" book). In the case of telephones with pulse dialling, the earth recall button is normally used for inquiry (call-back) - though not all pulse dial telephones have one. It is not supported by this telecommunication unit. For this reason, you can program a digit that initiates an inquiry call with pulse dialling telephones. In other words, you can use the inquiry function with pulse dialling telephones, too (see section 4.1.2, "Programming the digits for pulse dialling inquiry calls" in the "Installation and programming" book).

-  – In the operating instructions, "R" always refers to "Recall". If you have a pulse dialling telephone, you must dial the programmed number at this point.
- If you have pulse dialling telephones, the automatic allocation of outside lines should not be programmed, because the inquiry (call back) digit will then be directly transmitted to the exchange and it will no longer be available as hold for inquiry button for use making internal calls.

1.4 Special dialling tones

1.4.1 The special dialling tone (internal)

The special dialling tone (internal) is a modified internal dialling tone. It is used to make you aware of the fact that your telephone or unit has been programmed with special features. The tone is activated in the following cases:

- "Do not disturb" or automatic dialling have been activated for your telephone.
- A call diversion or "follow me" has been programmed for your telephone.
- Door-bell calls are diverted to an external telephone number. As it can be assumed that this external call diversion will not be of permanent nature, it is signalled to all users by the special dialling tone.

Using a master set (telephone 11 is the default) you can use procedure *9003 to reset all user data.

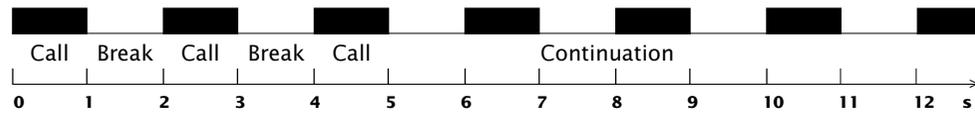
1.4.2 The special dialling tone (external)

If an external line is fully occupied, you may receive a distinctive dialling tone from your telephone utility company, the special dialling tone (external). This special external dialling tone is used to point out that you have programmed for a call to be redirected to another telephone number (call deflection). The telephone company will only transmit the normal dialling tone when you have reset this call redirection with procedure *520.

-  – This type of operation can only be used if your local telephone company provides the service.

1.5 Explanation of the calls

Explanation



External call 1



An external subscriber is calling

External call 2



An external subscriber is calling

External call 3



An external subscriber is calling

Internal call



An internal user is making a call

Door-bell call



A visitor is ringing the door-bell

Wake-up call / call at an appointed time (reminder)



Code calls to all internal users



- Code call 1



- Code call 2



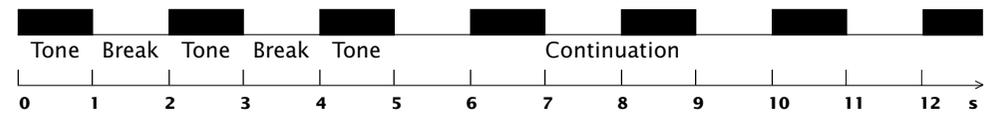
- Code call 3



- Code call 3

1.6 Explanation of the audible tones

Explanation



Dialling tone



- internal



- special dialling tone (internal)

- external

Ringling tone



Engaged tone



Special dialling tone for international calls



- internal



- special dialling tone

Call-waiting tone

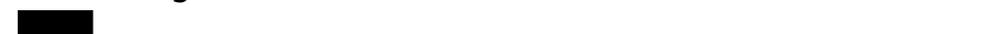


- internal



- external

Acknowledgement tone



- positive (conference tone)



- negative

Warning tone, telephone charge account



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You will find a summary of all the features in section 3, "Summary of the features".

2.1 Features of the telecommunication unit

2.1.1 Receiving calls

Thanks to the telephone unit's different ringing signals, you can differentiate between internal calls, code calls, door intercom calls and external calls (see section 1.5, "Explanation of the calls").

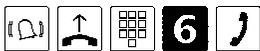
When your telephone rings and you pick up the receiver, you will be connected with the caller. You can end the call at any time by putting the receiver down.



- Your telephone rings. Lift the receiver and talk to the caller. End the call.

Picking up an internal call

When another telephone rings with an internal call, you can pick up the call on your telephone.



- An internal call is made to another telephone. Pick up your telephone's receiver, dial the telephone number of the telephone that is ringing and you will hear the engaged tone. Dial "6" and you will be able to speak to the caller.

 - You can only pick up an internal call with an analogue telephone, not with an ISDN telephone on the internal S₀ bus.

Picking up an external call

When another telephone rings with an external call, you can pick up the external call on your own telephone. Note: this applies only for users who at least have authorisation for inward calls. Users without authorisation cannot pick up external calls.

You pick up an external call as follows:



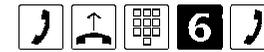
- An external call is made to another telephone. Pick up the receiver on your own telephone. Now dial the *6 and make the external call.

Taking over a call from a telephone answering machine

If your telephone answering machine has accepted an external call, you can also take over this call on your own telephone. However, the condition for this is that the terminal device connection concerned is programmed as a telephone answering machine.

Users without authorisation cannot take over calls from a telephone answering machine (they will hear a negative acknowledgement tone after dialling "6").

You pick up a call from a telephone answering machine like this:

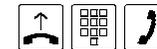


- The telephone answering machine has accepted an external call. Pick up your telephone receiver and dial the internal number of the telephone answering machine. You will hear the engaged tone. Dial "6" to take over the call.

2.1.2 Making telephone calls

Making an internal call

You can contact every user of your telephone unit via a double-digit number. The internal telephone numbers 11 to 18 for analogue users with the family 108 (11 to 15 with the family 105, and 11 to 16 with the family 116 units), 27 for the door intercom and 30 to 39 for the internal ISDN users on the family 116.



- Lift the receiver, dial the internal number of the user you wish to contact and make the call.

You can assign the internal telephone numbers at your discretion (see section 4.1.1, "Changing user's internal telephone numbers" in the "Installation and programming" book).

Making an external call

If you want to make an external call, you must first dial "0" to get an outside line. You can also perform a special exchange line seizure or a targeted exchange line seizure with a telephone number as described below.



- Lift the receiver and dial "0". You will now hear the external dialling tone. Now dial the external telephone number and make the call.

 - Of course, this procedure is unnecessary if you have programmed your telephone to get an outside line immediately you pick up the receiver.

Special occupation of an outside line

In the ISDN network, for each outgoing call, a "service indicator" is transmitted together with the desired telephone number. Differentiation is made between "telephone", "fax", and "audio" services.

The service indicator "telephone" or "fax" is automatically defined when the terminal device type is programmed.

If you are operating a combination unit on one of your connections (e.g. a telephone with a fax machine) and have programmed "combination unit" as your terminal device type, you must tell the unit which service you require when there is an outgoing call, as the unit also has to send an identification every time. In this case, you can use the special exchange line seizure:

- Exchange identification code 0 or *310 transmits the "telephone" service.
- Exchange identification code *311 transmits the "fax" service.
- Exchange identification code *312 transmits the "audio" service. This service is a universal identification that covers all services so that you are certain to reach the other party. You will dial the other party even when you want the "modem" service, for example.

Code No.	Explanation
0 or *310	Service indicator - telephone
*311	Service indicator - fax
*312	Service indicator - audio

-  - If you have programmed the automatic allocation of outside lines for a terminal device set up as a combination unit, or use the speed dialling feature, the "audio" service will be transmitted as well.
- There are sometimes problems if you send a fax to someone who also has an ISDN telecommunication unit, but whose fax you are unable to reach. One reason for this is often that the other telephone unit has not been correctly set up or that (for example) the fax connection has been programmed as a telephone connection. In this case, the ISDN service indicator will prevent your fax being received.

You can avoid the problem by using the special exchange line seizure feature that transmits the universal "audio" service. This way you are sure to reach the other party.

Targeted exchange line seizure at the multipoint interface

If you have a multipoint interface, you can perform a targeted exchange line seizure for outgoing calls with a chosen telephone number. In this case, the ISDN exchange is told the telephone number to make the connection with.

This makes sense when you have applied to your telephone company for a breakdown of connection charges by individual telephone numbers.

Example: One telephone number on an ISDN base terminal is used for private and another for business purposes. In order to be able to receive a telephone bill that is correctly broken down, the telephone numbers must each be assigned on the basis of outgoing calls made - i.e. the exchange must be informed. This can be done by giving each terminal device a permanently assigned telephone number that is transmitted when an exchange line is seized with "0" or when an outside line is obtained automatically. You can also assign a code digit (*33...) to a specific terminal device of your choice. You can assign authorisation for this connection individually to each terminal device for each telephone number. (See section 4.1.10, "Programming targeted exchange line seizure" in the "Installation and programming" book)

Targeted occupation of telephone numbers at the multipoint interface

With any terminal device that is so authorised, you can assign a telephone number (MSN) to the exchange line. You can perform a special exchange line seizure (fax or audio) specifically with one telephone number (MSN). To do this, first dial the code number, then the index of the desired MSN.

Code No.	Input	Explanation
*33	x	Normal exchange line seizure with MSN X ("phone" service on a combi port)
*34	x	Specific exchange line seizure with MSN X ("fax" service on a combi port)
*35	x	Specific exchange line seizure with MSN X ("audio" service on a combi port)

-  - If your terminal device is not authorised to occupy the desired telephone number or no MSN has been entered under the corresponding index, you will hear the negative acknowledgement tone.
- If you want to perform a special exchange line seizure (*34..., *35...) with a terminal device that is not set up as a combination unit, you will hear the negative acknowledgement tone.

Targeted exchange line seizure at the unit (single) connection point

With a unit (single) connection point, you can not make a targeted seizure of an extension (direct dialling) number. The telephone number which is first in the call allocation for the terminal device concerned will always be chosen.

During seizure, proceed in the same way as with a multipoint interface, but with a "0" instead of the desired MSN.

Booking an exchange line

All outside lines are engaged if you hear the engaged tone after dialling "0". You can then book a line. The unit will call you as soon as an external line is available. You will then hear the external dialling tone after lifting the receiver and will be able to dial the external telephone number immediately.

You book an exchange line as follows:



- Lift the receiver and dial "0". You will hear the engaged tone. Dial R *39 to book the exchange line. You will hear a positive acknowledgement tone. Put down the receiver.
- You can also book a call if you have not previously dialled "0". In this case, simply dial *39 after lifting up the receiver.
- If you hear a negative acknowledgement tone after dialling "*39", the exchange line is already booked.
- If you hear the special dialling tone after you have occupied the exchange line, ISDN call forwarding is active.
- The telephone unit will ring for 30 seconds when the exchange line is free. The exchange line will be offered once more when it is free again.
- The booking will be deleted after one hour if no connection has been made.

2.1.3 Door intercom system

If a door intercom system is connected to your telephone unit, you can call the door intercom or take calls from it. Two bell buttons can be connected, each of which is signalled in accordance with its own call allocation in the telecommunication unit. When another telephone rings with the door intercom call, you can pick up the door call on your telephone. During the door intercom call you can operate the electrical door opener from your telephone. You can re-route a door intercom call made using first bell button to an external destination.

Calling the door intercom



- Make the call to the person at the door intercom. If you have programmed your own internal telephone numbers, dial the appropriate telephone number.

Operating the door opener



- Speak to the person who is using the intercom. Operate the door opener with code R 27. It will be active for 3 seconds. You will then hear a positive acknowledgement tone. By repeating R 27, you will be able to repeat the door opening procedure if needed. You can then continue speaking to the person at the door. If you have programmed your own internal telephone numbers, dial the appropriate telephone number.

Picking up a door intercom call

When a call from the door intercom is ringing on another telephone, you can pick it up on your telephone by the following procedure.



- A door intercom call is made to another telephone. Pick up your telephone's receiver and dial the "27". You will hear the engaged tone. You can now speak to the person at the door intercom. If you have programmed your own internal telephone numbers, dial the appropriate telephone number.

Door intercom call diversion ("pharmacy" or "drug-store" connection)

You can redirect the door intercom call from the first bell button to any external telephone number. If you want to make use of this feature of your telecommunication unit, first use the set-up program or a master set to enter an external call diversion destination for the door intercom concerned (see "Re-routing a call from the door intercom outward...", section 4.1.6 of the "Installation and programming" book). You can activate or deactivate the door intercom call diversion from any telephone.

Code No.	Explanation
*4150	External call diversion for bell button 1 OFF
*4151	External call diversion for bell button 1 ON

-  When an external door intercom call diversion is activated, all users will hear the special dialling tone when they lift the receiver.
-  If the external call diversion destination is a telephone number with a dialling code, each time the first bell button is activated could initiate a long-distance call as soon as the person being called lifts the receiver. This can lead to major and unwanted charges being made.

2.1.4 Code calls

The telephone unit provides four code calls - code numbers *21 - *24. By means of a code call, you can search for a particular person in the building or send a signal to everybody. First of all, you need to agree with all the other users on who is being referred to, or what has to be done when a particular code call is heard.

All analogue telephones that are not engaged will ring with the call sequence of the code call selected (*21 - *24). The code calls always begin with a long calling tone. This is followed by one to four short calling tones (see section 1.5, "Explanation of the calls"). You will be connected with the first person to pick up the receiver. Digital telephones on the internal bus will ring with their own set rhythm - a message may be displayed, depending on the particular telephone.

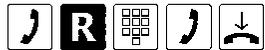
-  - The code calls can only be made to internal lines that are set up as telephones.
- Using the inquiry function, you can also trigger a code call even when you are already making a call. (Refer to the explanations in "Inquiry/alternate")

2.1.5 Transferring a call

You can transfer an external call to another internal user. Two types of transfer are possible:

Announced transfer

During an external call, press the signal button R and dial the number of the desired internal user. By putting down the receiver you have transferred (relayed) the call.



- During an external call, press the signal button R and dial the number of the desired internal user. When the internal user picks up the telephone, announce the call to him. Put down the receiver.

Unannounced transfer

With unannounced transfer, you call the internal user and put down the receiver without speaking to the internal user concerned. The internal user will then receive the external call. If the user lifts up the receiver, he or she will be connected with the external caller.



- During an external call, press the signal button R and dial the internal number. Put down the receiver.



- You can only transfer external calls to telephones that have at least "incoming exchange access".
- If the internal user does not respond, you will be connected to the external caller again after twice pressing signal button R. You can transfer the caller to another internal user if necessary.
- During transfer, the external caller will hear music from the telephone unit or an external source ("music on hold") if one is connected.
- Following unannounced transfer you will receive a return call through the telephone unit:
 - immediately, if the internal user is not authorised to accept external calls,
 - immediately, if the internal user has activated the "do not disturb" feature
 - immediately, if the internal user is engaged,
 - after 45 seconds, if the internal user has not picked up the call within this time. If you pick up this return call, you will be connected with the external caller - otherwise the connection will be broken off after 60 seconds.

Re-routing outward

You can re-route an outgoing or incoming external call to another external user. This is useful, for instance, if a caller wants to speak to an outdoor worker whose cellular phone number is not to be made public. You can then make the connection to the employee and transfer the call (kept on hold) to him.



- During an external call, press the hold for inquiry (call back) button (the first external caller will be put on hold). Dial the external telephone number for the second call and announce the transfer. Dial R *32. This will transfer the external call (presently on hold) to the second external caller. Put down the receiver.



- Two channels of your telecommunications unit will be occupied until the end of the transferred call. These channels will only be released when the two external partners have ended their call. You cannot cut off this call yourself.

2.1.6 Inquiry/alternate

Using the "inquiry/alternate" function, you can interrupt your call and call back a second party. The telephone unit will put your first call on hold. Once the inquiry call is finished, you can switch back to the original call.



- During an external call, press signal button "R". The first call will be put on hold. Dial the internal or external telephone number you want. Make the inquiry call.



- Press signal button "R". The inquiry call and the first call will be put on hold.



- Press signal button "R" again and the unit will switch back to your first call. Continue the first call.



- In order to call a user with an inquiry call, you can use the internal telephone numbers internally (as well as the code calls) and externally you can use the central speed dialling feature.
- During an inquiry call you can also operate the door opener (while speaking to the person at the door intercom)
- During an inquiry call you can take over a call from a telephone answering machine.
- While on hold, the external caller will hear music from the telephone unit or from an external source ("music on hold") if one is connected.
- If you are making another call and you put down the receiver during an inquiry, you will end the current call and you will receive a return call. Alternatively, you can transfer an external call kept on hold to an internal user with whom you were making an inquiry call. The connection on hold will be terminated if you do not take a return call within 60 seconds.
- Note that charges also arise for the external call while the call is kept on hold.

2.1.7 Call waiting

You can signal a user who is currently engaged notifying him/her that you are there by call waiting. The call-waiting tone will be heard during the call already in progress. When the internal user you want to speak to puts down the receiver, he or she will immediately receive your call.

Call waiting on an internal user who is engaged

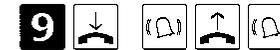


- Lift the receiver and dial the internal number of the user. You will hear the engaged tone. Dial "3" and you will hear a positive acknowledgement tone. This means that the other party can hear the knocking (call-waiting) tone. The user will reply and take the call.

If the other party does not react...

- 3** Try by dialling "3" again.

or ...



- Dial "9" to initiate the return call and put down the receiver. As soon as the person being called has finished the call, his or her telephone will ring. When you lift up the receiver, the other internal user's telephone will ring.

Both internal and external users can use call waiting when you are making a call. If you do not want "call waiting" to be active while you are making your call, switch on your telephone's call waiting security feature.

Call waiting from outside while you are making a call

The unit possesses two external telephone channels. So it is possible to receive a second external call while you are making an internal or external call. This second call will be announced every 10 seconds by a call-waiting tone. You can receive this call if you exit your first call within the call-waiting time. If you do not want a call to be signalled on the telephone on which you are currently speaking, you can program the call rejection function (see section 4.1.23, "Programming call rejection" in the "Installation and programming" book).

Taking a call from a waiting caller after putting down the receiver



- During a call. You hear the call-waiting tone and end the call. A connection will be made by the "call waiting" person. Lift the receiver and take the call.

Taking a call from a waiting caller without putting down the receiver

You can speak to a user (internal or external) who has been waiting without ending the call you are currently making.



- During a call. You hear the call waiting tone and press the signal button twice. You are now speaking with the person who was waiting; the first call is now on hold.

After pressing the signal button twice, you will be reconnected with the first caller, and the call from the person who had been waiting is put on hold, etc.

You can also set up a conference (internal or internal/external) as follows:



- Press the signal button and dial *36.

Call waiting security

The unit allows you to activate the call waiting security feature. There are three levels of call waiting security:

- internal
- external
- internal and external

When delivered from the factory, the call waiting security feature is inactive for all terminal devices.

Code No.	Explanation
*440	Call waiting security OFF
*441	Call waiting security (internal) ON
*442	Call waiting security (external) ON
*443	Call waiting security (internal and external) ON

- You can only set up the call waiting security feature with analogue telephones.
- You cannot use call waiting at an internal user who:
 - is taking part in a conference,
 - has activated the internal call waiting security or “do not disturb” feature,
 - who is currently dialling,
 - or who is not set up as a telephone user.

In such cases, you will hear a negative acknowledgement tone.

- If an external caller calls you by direct dialling and you have activated the call waiting security, the caller will receive an engaged tone.

Rejecting a waiting call

If somebody is waiting while you are making a call and you do not want to receive the call, you can reject it. The caller will then hear the engaged tone.



- You hear the call waiting tone and dial R*49. The person waiting will then hear the engaged tone and you will be connected again to the caller with whom you have been speaking.
- You can use this function both internally and externally. When you reject an external call, the calls to the other users who are included in the call allocation will also be brought to an end. The caller will hear the engaged tone.
- If you dial R*49 while alternating between two parties, the party who was put on hold first will be cut off. This caller will then hear the engaged tone.

Transferring a waiting call

If an external call is waiting, you can accept it by pressing the hold for inquiry (call back) button (R). The first party will then be put on hold. You can transfer the second call to another internal user by pressing the hold for inquiry (call back) button (R) and then dialling the internal telephone number of the desired user. In this case, you cannot make an announced transfer (i.e. you cannot speak with the internal user first). When the internal user who has been called picks up the telephone, he or she will be immediately connected with the external user who had previously been waiting while you were making a call. You will then hear the positive acknowledgement tone and will be connected with your first caller (who has been put on hold in the meantime). If the internal user being called is engaged, you will hear the negative acknowledgement tone. Press the signal button again and you will be connected with the first caller with whom you have been speaking.

2.1.8 Do not disturb

You do not wish to be disturbed by calls and so activate the “do not disturb” feature. Your telephone will no longer be able to ring. You can make calls as normal. After lifting the receiver, the special dialling tone will remind you that the “do not disturb” feature is active.

As with call waiting security, you can also choose between:

- internal “do not disturb”
- external “do not disturb”
- total “do not disturb” (internal and external)

When delivered from the factory, the "do not disturb" feature is inactive for all terminal devices.

Code No.	Explanation
★430	"Do not disturb" OFF
★431	"Do not disturb" (internal) ON
★432	"Do not disturb" (external) ON
★433	"Do not disturb" (internal and external) ON

-  - You can only set up the "do not disturb" feature with analogue telephones.
- "Do not disturb" is not possible at a master set.
- You can initiate return calls despite the "do not disturb" feature being active. The "do not disturb" will remain effective - only those return calls that you want to receive will be allowed to reach you.
- If you have activated the "follow me" call diversion and then initiate "do not disturb", the call diversion will be cancelled. If you have activated a "call diversion to" and then initiate "do not disturb", the call diversion will be maintained.
- If you have first initiated "do not disturb" and then want to initiate the "call diversion to" or "follow me", this will not be possible. You will hear the negative acknowledgement tone.
- If you receive an internal call, although the internal "do not disturb" feature has been initiated, then this will be a return call that you have initiated yourself (and which you might have forgotten if it had been initiated some time ago) or another user has initiated a return call before you activated the "do not disturb" feature on your telephone.
- With combination units, faxes and modems, when the "do not disturb" feature is active you will not hear a special dialling tone after lifting the receiver, so that automatic dialling could be started.

2.1.9 Return call

Initiating an internal return call

If an internal user is engaged or does not lift the receiver, you can initiate an automatic return call from him or her.

As soon as the other user puts the receiver down again, your telephone will ring. You will receive the return call. Lift the receiver and the other user will be called automatically.



- Lift the receiver and dial the number of the internal user. You will hear the engaged or the ringing tone. Dial "9" to initiate the return call. You will hear a positive acknowledgement tone. Put down the receiver. Your telephone will ring as soon as the other user has finished speaking.



- You can initiate return calls from different internal users one after the other.
- If you hear the negative acknowledgement tone, no return call will be possible from the user desired, because another user is expecting a call first or because the party you want to call has switched on the internal "do not disturb" feature on his or her telephone.
- If you have activated the internal "do not disturb" on your telephone, the guarding will be temporarily revoked when you receive a return call.
- If you cannot be contacted when the return call is initiated, it will cease after 60 seconds. It will be started again when the user from whom you want to get the return call puts down the receiver.
- A return call will be deleted if contact has been made with the person making the return call, or if the return call has not been made within one hour.

Initiating an external return call (CCBS)

In order to initiate a return call from an external caller who is currently engaged, you can make use of the exchange's "CCBS" ISDN feature. This will initiate a return call automatically. Proceed as described in "Initiating an internal return call". However, it is not possible to receive a return call from a user who is currently free. By dialling code ★57, you can delete an initiated external return call again.

Initiating a return call:



- Lift the receiver and dial the number of the external user you want to contact. You will hear the engaged tone. Dial "9" to initiate the return call. You will hear a positive acknowledgement tone. Put down the receiver. Your telephone will ring as soon as the other user has finished speaking.

Deleting a return call:



- Lift the receiver and dial ★57. If you have activated the feature for automatically obtaining an outside line, you must first press the hold for inquiry (call back) button. You will hear the positive acknowledgement tone, the return call will be deleted. Put down the receiver.

-  – Note: this type of operation can only be used if your local telephone company provides the service. It is not available everywhere at present.
- If you do not take a return call, it will be deleted.
- If you continue hearing the engaged tone or negative acknowledgement tone after dialling "9", it will not be possible to initiate a return call.

2.1.10 Automatic redialling

By dialling a code number, you can automatically redial the number you last dialled. This means that you can use the automatic redial feature even with a telephone that does not have its own automatic redialling button.



2.1.11 Speed (abbreviated) dialling

At a master set, you can store up to 200 external telephone numbers in the unit's call number memory.

Every user who has at least authorisation for inward calls can use speed dialling.



- Lift the receiver and dial the code for the call number memory (*700 to *899). The stored number will be dialled. Make the call.

-  – After you have speed dialled a specific number, you can add further digits (e.g. the extension number of a particular user).
- If your telephone does not have the authorisation for inward calls or if you have selected an empty call number memory, you will hear a negative acknowledgement tone.
- With a terminal device set up as a combination unit, the "audio" service will be transmitted as well.

2.1.12 Automatic dialling

You can activate the automatic dialling feature on your telephone for an emergency. If you lift the receiver and then do not dial any number, the unit will automatically dial (after 10 seconds) a previously stored emergency number.

Code No.	Explanation
*450	Automatic dialling OFF
*451	Automatic dialling ON

-  – After lifting the receiver, the special dialling tone will remind you that the automatic dialling feature is active.
- You can only enter the emergency number in the unit from a master set or with the PC set-up program. The emergency number can be either an internal or external number (see "Programming an emergency service number for automatic dialling", section 4.1.15 in the "Installation and programming" book).
- In order to avoid malfunctions, you should test this feature after activating it!
- With ISDN telephones on the internal S₀ bus of the family 116, you must ensure that automatic dialling is not repeated if the telephone number being called is engaged. If you want to try again, put down the receiver first. After 10 seconds another attempt will be made to dial the number automatically.
- With analogue connections, automatic dialling is only possible using a terminal that has been set up as a telephone.
- The automatic dialling is not active when the unit is delivered from the factory.
- If you hear a negative acknowledgement tone after activating automatic dialling, this means that no emergency number has been programmed.
- If the user being called is engaged, the unit will try to call the emergency number again every 30 seconds. After 12 attempts, the unit will cease dialling automatically.
- Automatic dialling can also be initiated by a user who has "no authorisation".
- When you activate automatic dialling and if a telephone is programmed to get an outside line immediately when the receiver is picked up, this feature will be temporarily deactivated. The feature will be active again when you deactivate automatic dialling.

2.1.13 Call allocation switch-over (day and night service)

You can program three types of call allocation for external calls with the telecommunication unit. These are: daytime service, daytime service combined with call forwarding, and night service. You can activate the individual call allocations with the following code numbers.

Code No.	Explanation
*401	Activate daytime service
*402	Activate daytime service with call diversion
*403	Activate night service

You have specified which terminal devices will ring when you programmed the call allocations. (If you have not programmed anything, the factory default setting will be active - i.e., the daytime service). If several devices ring during a call allocation, the internal user who is first to pick up the receiver will be connected with the caller.

-  - The preset call allocations are described in section 3.1, "Condition as supplied" and the necessary programming steps are outlined in 4.1.3, "Call allocation for external calls" in the "Installation and programming" book.
- Please refer to 4.1.5, "Call allocation for the door intercom system" in the "Installation and programming" book for details of the intercom call allocation.

2.1.14 Call diversion / follow me

The unit allows you to activate the call diversion feature. There are two kinds of call diversion:

Follow me, i.e. the diversion of calls from other telephones to your own, and

Call diversion to another telephone or to an outside number.

Both types of call diversion are inactive when the unit is delivered from the factory.

Follow me

Using the "follow me" feature, you can redirect calls destined for another of the unit's telephone to your own. Set up "follow me" at that telephone to which the call is to be diverted.

With the "deactivate follow me" command, you cancel all of the "follow me" diversions that you have set up.

Code No.	Input	Explanation
★420		Follow me OFF
★421	XX	Follow me from user XX ON

Activate the "follow me" feature like this:



- Lift the receiver and dial code number ★421. Dial the internal telephone number of the user whose calls you wish to have diverted to your telephone. You will hear a positive acknowledgement tone. Put down the receiver.



- Diverted external calls can only be taken on telephones which at least have authorisation for inward calls.
- Calls can only be diverted once. Calls diverted to you will be signalled on your telephone, even if you have activated a "call diversion to..." on your telephone.
- "Follow me" cannot be carried out from a telephone where the "do not disturb" feature has been activated. You will then hear the negative acknowledgement tone.
- A user whose calls have been diverted will hear the special dialling tone. The caller will then be able to cancel the "call diversion to..." by dialling code number ★410.

Call diversion to ...

You can program the following types of call diversion for every user:

- permanent call diversion,
- call diversion when there is no reply (after 15 seconds)
- call diversion when engaged

The call can then be re-routed to an internal or external user.

Programming

Any terminal device can be programmed for call diversion.

Code No.	Input	Explanation
★410		Call diversion OFF
★411	XX	Permanent call diversion to user XX ON
★411	0 + max. 25 digits	Permanent call diversion to an external telephone number ON
★412	XX	Call diversion to user XX ON when no reply
★412	0 + max. 25 digits	Call diversion to an external telephone number ON when no reply
★413	XX	Call diversion to user XX ON when engaged
★413	0 + max. 25 digits	Call diversion to an external telephone number ON when engaged

Note: dial zero first when you enter an external number.

-  – If you have programmed a call diversion, you will hear the special dialling tone when you lift the receiver again (only when "0" has to be dialled to get an outside line).
- If you are programming an outward call diversion, please make sure that the diversion destination has been correctly programmed.
- When the line is engaged, a diversion will also be performed if call waiting is allowed.

Example: If you want all calls to be re-routed from your telephone to the external number of your cellular phone if there is no reply (i.e. after 15 seconds). The number of the cellular telephone is, say, 0172-1234567.



- Lift the receiver. You will hear the internal dialling tone (when outside lines are obtained automatically, press the hold for inquiry (call back) button after lifting the receiver). Dial "* 412001721234567". This will activate the call diversion. Put down the receiver.
-  – You can only set up one call diversion for your telephone. When you activate a new call diversion, you overwrite the call diversion that was already there.
- Your own telephone can be the call diversion destination of all other internal users.
- Diverted external calls can only be taken on telephones which are at least authorised for inward calls.
- Calls can only be diverted once. Calls diverted to you will be signalled on your telephone, even if you have activated a call diversion on it.
- It is not possible to make call diversions to a telephone where the "do not disturb" feature has been activated. If you try, you will hear a negative acknowledgement tone.
- If two users have programmed each another as call diversion destinations, their telephones will both ring "crosswise".

2.1.15 Remote modification of a call diversion

You can remotely modify the call diversion of any user. There are two ways to perform this remote modification with your telecommunication unit.

1. You call a telephone number reserved for this purpose (MSN/direct dialling number) and modify the call diversion or
2. You use a telephone answering machine connected to your unit, with which you can program the call diversion from another location while it is recording.

To make a remote modification you will need a telephone with multifrequency dialling or a multifrequency handheld transmitter.

With either method, a remote modification can only be made if a four-digit PIN number has previously been programmed (see 4.1.8, "Programming a call diversion from another location" in the "Installation and programming" book).

Method 1: Calling a telephone number reserved for remote modification

Specify a number (MSN/direct dialling number) to be reserved for remote modification purposes. This MSN will then be used exclusively for this purpose. When you then call this number from a different location, your unit will accept the call after 10 seconds, without your telephone ringing. You can then change your call diversion remotely.

Initiating a remote modification of the call diversion

Call the telephone number that you have activated for the remote modification and wait for the attention tone. The attention tone is a high tone that lasts for 5 seconds. It sounds similar to a fax tone. This tells you that you have dialled the right telephone number for remote modification. An unauthorised caller will be deterred as he will think he is connected with a fax machine.

Then dial the code for the remote call diversion modification as described below ("remote modification of a call diversion").

-  – After one incorrect attempt to dial, the connection will be cut off. If a wrong PIN number is entered three times in a row, the unit will prevent any more remote modifications being made. Then you must re-program the PIN on a master telephone.
- If you do not transmit a multifrequency signal for 30 seconds, this connection will also be terminated.
- When printing the call data, an incoming call for user 11 will be announced if that telephone number is called which is reserved for remote modification of the call diversion.

Method 2: Calling a telephone answering machine enabled for remote modification

Specify an answering machine connected to your unit which can be called normally and via which you can remotely modify your call diversion. This method has the advantage that you do not need to reserve a telephone number. However, you will need to have a suitable answering machine.

Initiating the remote modification of the call diversion

Call the telephone answering machine that you have activated for the remote modification and wait for the message. Then, as described below, dial the code for the remote modification of a call diversion. Please note that a telephone answering machine can switch itself off when there is a long interval. (Refer to the instructions for your telephone answering machine).

- You will hear the negative acknowledgement tone if you enter the wrong PIN. You will then have two more attempts to correctly enter the PIN. If a wrong number is entered three times in a row, the unit will not allow any more remote modifications. Then you must re-program the PIN on a master telephone.

Remote modifying of a call diversion (for both methods)

Dial the following code symbols:



Start of the call diversion modification, the four-digit PIN number and internal number of the telephone whose call diversion is to be changed *then either*



***410** with which you disable an existing call diversion *or*



***41XY** with which you activate a call diversion to an internal user, YY (11/12/...). X specifies the type of call diversion *or*



***41X0nnnn#** with which you activate a call diversion to an external user, telephone number: nnnn (max. 25 digits). X specifies the type of call diversion. The cross-hatch symbol (#) is used to terminate the telephone number.

Types of call diversion: X=1 permanent call diversion
 X=2 call diversion when no reply received
 X=3 call diversion when engaged

Example:

Call a programmed MSN or answering machine, then dial:

0815 13 *412 06169604

#: symbol for the start of the call diversion modification
 0815 : PIN
 13: internal user to be re-routed
 *412: call diversion when no reply received
 06169604: external telephone number as diversion destination
 #: symbol for the end of the telephone number

2.1.16 Conference call

You can use the unit to set up a telephone conference. To do this, you can either

- connect a number of internal users (at most, all of them - internal conference)
- or connect an external user with another internal user. (conference 1 external / 2 internal)
- or set up a conference with two external users. (conference 2 external / 1 internal)
- Two separate conferences are also possible.

Internal conference



- You are making an internal call. Press the signal button R and dial the internal number of another internal user and make an inquiry call.. Dial code number R *36 for conference. You will hear a positive acknowledgement tone. You have set up a conference with three users.



- Press signal button R, dial another internal number and make another inquiry call. Dial code number R *36 for conference. You will hear a positive acknowledgement tone. You have set up a conference with four users.

- etc.

External/internal conference



- You make an internal call. Press the signal button R and dial "0" to get the outside line. Dial the external telephone number you want. Make an inquiry call. Dial code number R *36 for conference. You will hear a positive acknowledgement tone. You now have a conference with two internal and one external user.



- Each party to the conference can invite additional internal users to take part in the internal conference. New parties will be introduced by a positive acknowledgement tone.
- Each party can only take part in one conference.
- You can also connect an internal user or another external user to an external call.

- An external or door intercom call is signalled to the conference by an external call-waiting tone if the user being called is in the conference.
- Each party to the conference who has at least authorisation to accept external calls can pick up the external call with R *6.
- Each party can pick up a door-bell call with R 27.
- During the external call or door intercom call, the conference party concerned is no longer in the conference. This party can then switch back to the conference with R *36 - provided he or she has not put down the receiver.
- The conference is over when there is only one connection remaining between two parties.
- For an internal user taking part in conference call waiting is not possible.

2.1.17 Wake-up calls / calls at appointed times (reminders)

Each user can program a wake-up call or reminder by telephone. A wake-up call rings for 5 seconds at a pre-arranged time. If the user lifts the receiver, a positive acknowledgement tone will be heard and the wake-up call will be terminated. If the user does not lift the receiver, the call will be repeated twenty times at one minute intervals. The wake-up call will then be terminated.

Unique and daily wake-up calls are possible, as well as ones on particular days of the week. The daily wake-up call rings at a pre-programmed time a maximum of twenty times and is then terminated. The daily wake-up call is heard at the same time every day. Wake-up calls can also be made on specific days every week.

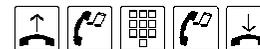
Calls at set times (reminders) represent a special kind of wake-up call. In contrast to the wake-up call, calls at appointed times (reminders) ring for 5 seconds every day at the same time. You can also specify particular days for these calls. These calls at appointed times do not need to be acknowledged.

Programming

Code No.	Input	Explanation
*460		Calls: wake-up or at appointed times OFF
*461	hhmm	Unique wake-up call ON at hhmm
*462	hhmm	Daily wake-up call ON at hhmm
*463	hhmm	Daily call at appointed time ON at hhmm
*464	hhmm 1 2 3 ...	Wake-up call ON at hhmm for weekdays (1 = Mon - 7 = Sun)
*465	hhmm 1 2 3 ...	Call at appointed time ON at hhmm for weekdays (1 = Mon - 7 = Sun)

(hh = hours, 2-digit / mm = minutes, 2-digit)

Example: You want to be called at 8 a.m. from Monday to Friday.



- Lift the receiver. You will hear the internal dialling tone. Dial "*464 0800 12345". You will then hear the positive acknowledgement tone. Put down the receiver.

2.1.18 Printing and deleting the telephone charges

You can apply for the "transmission of the connection charges following the termination of a connection" feature for your ISDN connection. This feature may be subject to a fee. If you have applied to the telephone company for this service, you will be able to use a connected printer to print out the telephone charges for each user or for the unit as a whole.

You can choose between:

- printing the charges arisen by each user, on the basis of your own rate for a unit.
- printing the charges of the telephone unit, on the basis of the telephone company's rate for a unit.

You can only initiate the printing (or deleting) of the telephone charges for the users and the unit using a master set.

Code No.	Input	Explanation
*4710	XX	Delete charge account of user XX
*4711	XX	Print charge account of user XX (user's own charges)
*4720		Delete charge accounts of all users
*4721		Print charge accounts of all users (user's own charges)
*4730		Delete charge account of the unit
*4731		Print charge account of the unit (telephone company charges)

Example: You want to print out the telephone charge for user 14.



- For technical reasons, the details in the telephone company's bill may differ from the charges recorded by the unit. In such cases, the charge meter reading at the telephone company's exchange is always binding.
- You can also select the charges using the configuration program and delete them if necessary.

2.1.19 Making calls using the telephone charge account (small charge account)

If you have set up a charge account (see "Charge account", section 4.1.21 in the "Installation and programming" book) for a user, he or she can continue making outward calls until the total charges arisen have reached the limit of the charge account. If you have applied for the "charge information during a call" feature, the limit of the charge account can be exceeded during a call. The user will hear a warning (5 short tones). 30 seconds after this warning signal, the connection will be ended.

If you do not have the "charge information during a call" feature, then you can only determine whether the account limit has been exceeded after the call has been made.

If you only have standard ISDN access, you will receive no information whatsoever about the charges. In such cases, it does not make sense to work with the telephone charge account.

-  - If the charge account limit of a user's connection has been exceeded, then it will not be possible to make any external connections - except for emergency calls (police, ambulance, etc.). If the user now attempts to get an outside line or to call any number other than that for the emergency services, the user will receive the warning tone described above, followed by the negative acknowledgement tone. The user will only be able to make outgoing external calls when the amount of the charge account is increased, or when the charge account limit is removed.
- If the charge account limit is exceeded during an inquiry call, the external call being made will be cut off after 30 seconds - without any prior signal.

2.1.20 Hearing music-on-hold and audible tones

When you make an inquiry call in the middle of a call with an external user, the party who is placed on hold will hear the internal or external music-on-hold, depending on what has been set up for the unit. (See 4.1.14, "Setting up the music-on-hold" in the "Installation and programming" book). If you want to check which music is being used as music-on-hold, you can do so as follows.

Code No.	Input	Explanation
*480	0	Listen to current music-on-hold

In the same way, you can also hear which audible tones are being generated by the unit so that you know how the tones referred to in the operating instructions sound. A summary of the tones is to be found in section 1.6, "Explanation of the audible tones".

Code No.	Input	Explanation
*481	00	No tone
*481	01	internal dialling tone
*481	02	Ringling tone
*481	03	Engaged tone
*481	04	Positive acknowledgement tone
*481	05	Negative acknowledgement tone
*481	06	Unique negative acknowledgement tone
*481	07	Internal call waiting tone
*481	08	External call waiting tone
*481	09	Warning tone, telephone charge account
*481	10	Special dialling tone (internal)
*481	11	Specific internal dialling tone (in other countrys)
*481	12	Specific internal special dialling tone (in other countrys)
*481	13	Permanent tone (like external dialling tone)

2.2 ISDN features

2.2.1 Transmitting the telephone number

The telephone unit will transmit your telephone number to an external user even before the call connection has been made.

You can individually activate or deactivate two types of transmission.

- Your telephone number will be transmitted to the external user you are calling.
- Your telephone number will be transmitted to the external user who is calling you.

If you have an ISDN telephone with an internal S_0 bus, you can also program the unit in such a way that the telephone number will be transmitted to the telephone (or not, depending on how you have programmed it).

Note: apply to your telephone company for "case by case suppression of telephone numbers" otherwise the following procedures will have no effect.

Code No.	Transmission of telephone number ...
*500	... to person being called OFF
*501	... to person being called ON
*502	... to person being called as set up at an ISDN telephone
*510	... to caller OFF
*511	... to caller ON
*512	... to caller (as set up at an ISDN telephone)

2.2.2 Call forwarding

You can make a special application to the telephone company for the "call forwarding" feature. This feature is likely to cost money. With this feature, you can ensure that the ISDN exchange forwards all calls made to the telephone number of your unit (single) connection point or multipoint interface connection to another destination which you have defined. You can only specify one of the unit's call number memories as the call forwarding destination.

There are three varieties of call forwarding:

- permanent, i.e. all calls are immediately forwarded,
- when engaged, i.e. all calls are immediately forwarded if your unit connection or multiple subscriber number is engaged,
- when there is no reply, i.e. all calls are forwarded after 15 seconds if nobody answers.



You can only activate or deactivate the different types of call forwarding with a master set. When you receive the unit, the master set is telephone 11. If you also want to activate the call forwarding feature in the exchange from another telephone, you must first program a master authorisation (see "Assigning master authorisation", section 4.1.24 in the "Installation and programming" book).

Call forwarding at the unit (single) connection point

Code No.	No. of the call number memory	Explanation
*520		Call forwarding OFF
*521	700-899	Permanent call forwarding
*522	700-899	Call forwarding when no reply
*523	700-899	Call forwarding when engaged

Example 1: You would like to activate permanent call forwarding.



- Lift the receiver and dial code number *521 and the desired external connection. From the call number memory (700 to 899), specify the destination to which your call is to be forwarded. You will hear a positive acknowledgement tone. Put down the receiver.

Example 2: You would like to deactivate call forwarding.



- Lift the receiver and dial code number *520. You will hear a positive acknowledgement tone. Put down the receiver.



- After you have dialled this code, it may take several seconds until you hear the positive acknowledgement tone. If you put down the receiver before, the call forwarding feature will not be activated (or deactivated).
- If you do not activate call forwarding at master set 11 or at another authorised telephone, or if the call number memory is empty, you will hear a negative acknowledgement tone.
- If the call forwarding feature is activated, you will hear the special dialling tone after the external line has been occupied.
- If you have activated permanent call forwarding at the unit connection point, no external calls will be allowed in, even if they are to extension numbers.

Call forwarding at the multipoint interface

At the multipoint interface, you must additionally enter the index for the multiple subscriber number (MSN) that is to be forwarded.

Code No.	Index MSN	No. of the call number memory	Explanation
*520	0-9		Call forwarding OFF
*521	0-9	700-899	Permanent call forwarding
*522	0-9	700-899	Call forwarding when no reply
*523	0-9	700-899	Call forwarding when engaged

Example: You want to set up call forwarding when engaged for your second MSN (index: 1) at the second external port.



- Lift the receiver and dial code number *523, followed by the index of the MSN. From the call number memory (700 to 899), specify the destination to which your call is to be forwarded. You will hear a positive acknowledgement tone. Put down the receiver.

-  - After you have dialled this code, it may take several seconds until you hear the positive acknowledgement tone. If you put down the receiver before, the call forwarding feature will not be activated (or deactivated).
- If you do not activate call forwarding at master set 11 or at another authorised telephone, or if the call number memory is empty, you will hear a negative acknowledgement tone.
- If the call forwarding feature is activated, you will hear the special dialling tone after the external line has been occupied.

2.2.3 Holding a connection (alternating between external connections)

With a multipoint interface, you can have an external connection held by the ISDN exchange so that you can conduct an inquiry call on the same line with a second external user. You can then return to the first call.

You can also switch between the two external calls (alternating or brokering).



- Make an external call. Dial code number R *53 to put the external call on hold. You will now hear the external dialling tone. Dial the desired second external number for your second external call and conduct the second external call (an inquiry call).



- By dialling code number R *53 you will be returned to the first external call. Continue your external call,
- etc.
-  - If you hear a negative acknowledgement tone instead of an external dialling tone, it will no longer be possible to put calls on hold at the exchange. After twice pressing signal button R you will be connected with the external user again.
- If you put down the receiver, you will break off the current call. You will receive a return call if another user is on hold in the exchange.
- Charges will arise both for the current call and for the one on hold.

2.2.4 Three-way conference

Using the ISDN exchange, you can organise a three-way conference with two external users. This will only occupy one external line. To set up the three-way conference, you must first have an external connection held by the ISDN exchange so that you can conduct an inquiry call on the same line with a second external user. Then you both switch to the three-way conference.



- Make an external call. Dial code number R *53 to put the external call on hold. You will now hear the external dialling tone. Dial the number of the second external party. You are now making an inquiry call with the second external party.



- Dial code number R *54 for three-way conference. You will hear a positive acknowledgement tone. You have set up a three-way conference with two external parties.
-  - If you hear a negative acknowledgement tone instead of an external dialling tone, it will no longer be possible to put calls on hold at the exchange. After twice pressing signal button R you will be connected with the external user again.

- A three-way conference will not be possible if you hear the negative acknowledgement tone after dialling the code number for the three-way conference.
- If you put down the receiver, you will terminate the three-way conference.
- Telephone charges will arise for the external calls in the three-way conference.
- Alternating with signal button 'R' is not possible during a three-way conference.

2.2.5 Parking calls at the exchange

It only makes sense to "park" calls if you want to transfer a call from the unit to another ISDN telephone on a multipoint interface, for example.

You must pick up a parked call again within 3 minutes, otherwise the exchange will cut it off.

If you want to park a call or pick up a parked call again, you must dial a double-digit transaction number, because a number of calls may be parked on the bus.

Parking a call:



- You are making an external call. Dial code number R *55 and a double-digit transaction number (00 to 99). You will hear a positive acknowledgement tone. Put down the receiver.

-  - If you hear a negative acknowledgement tone it will no longer be possible to park at the exchange. After twice pressing the hold for inquiry (call back) button, you will be connected with the external user again.
- For equipment with shorter transaction numbers, press the * button, for devices without any transaction numbers, just dial *.

Resuming a call:



- Lift the receiver. Dial code number *56 and a double-digit transaction number (00 to 99) and resume your external call.

-  - If you hear a negative acknowledgement tone, no call is parked at the exchange under the transaction number.
- For equipment with shorter transaction numbers, press the * button, for devices without any transaction numbers, just dial *.

2.2.6 Tracing nuisance calls

You can make a special application to the telephone company for the "tracing nuisance calls" feature. This feature is likely to cost money.

With this feature, the ISDN exchange stores the telephone number of the caller, as well as your own telephone number and the time and date of the call. It is thus possible to have the caller traced during the course of the call.



- You are making an external call. Dial code number R *59. You will hear a positive acknowledgement tone. Put down the receiver. The connection will be terminated.

-  - If you want to continue the call after the caller has been traced, press signal button R twice.
- Until you continue or terminate the conversation with the caller, the caller will hear music-on-hold from the unit or from an external source.
- You will hear the negative acknowledgement tone if you have not applied for the "tracing nuisance calls" feature or if the caller could not be traced by the exchange.

3. Appendix

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3.1 What you need to observe with the family 105 and family 108

The "family 105" and "family 108" differ only in terms of hardware configuration level. The differences in equipment are described in section 1.2, "General information about the telecommunication unit". If you have decided to install the family 105, do note the following limitations:

Users

Only users 11-15 are possible with the family 105. In other words, if you try to program or call a user 17, the family 105 unit will not accept the data entries.

Internal S_0 connection

The family 105 and family 108 have no internal S_0 connection point. The programming that can be conducted for this component is not possible with this unit.

3.2 What you need to observe with the family 116

There is one internal S_0 connection for the family 116. Thus in addition to the analogue users 11-16, you can also use MSNs 30-39 for digital devices.

3.3 Summary of the features

The following table provides an overview of the unit's features. Section 2 describes in detail how the unit is operated.

Code No.	Input	Explanation
Exchange line seizure		
0		Normal exchange line seizure (seizes telephone service at combination port)
Making internal calls		
11 or 12 or ...	(or internal teleph. number assigned)	The appropriate internal user will be called
Call door intercom / pick up door-bell call		
27	(or internal teleph. number assigned)	You are connected with the door intercom
Open door		
R 27	(or internal teleph. number assigned)	Press the door opener for 3 seconds while you are connected with the door intercom
Inquiry (call-back) calls with pulse dialling telephones		
n (1...9)		Use the programmed digit 'n' as a substitute for the grounding button with pulse dialling telephones
Automatic redialling		
*1		Redialling the last number called automatically
Code call to all internal users		
*21		Global or code call 1
*22		Global or code call 2
*23		Global or code call 3
*24		Global or code call 4
Internally call waiting		
3		Use Call Waiting on an internal user by dialling '3' when you hear the engaged tone
Specific exchange line seizure for services		
*310		Exchange line seizure with the service used by the terminal device (seizes "telephone" service on a combination port)
*311		Exchange line seizure with the "fax" service
*312		Exchange line seizure with the "audio" service

Code No.	Input	Explanation
Re-routing outward		
R *32		Re-routing an external call outward
Targeted exchange line seizure with teleph. No. X (with an unit connection, X = 0)		
*33	X	Normal exchange line seizure ("phone" service on a combi port)
*34	X	Specific exchange line seizure ("fax" service on a combi port)
*35	X	Specific exchange line seizure ("audio" service on a combi port)
Setting up a conference		
R *36		During a call, you set up a conference with a number of users
Remote maintenance / remote configuration		
*3838		Seizing an external line for remote configuration
R *3838		Starting remote configuration during a call
Booking an exchange line		
*39		Booking an exchange line
Activating call options		
*401		Activate daytime service
*402		Activate daytime service with call diversion
*403		Activate night service
Call diversion		
*410		Call diversion OFF
*411	XX	Permanent call diversion to user XX ON
*411	0 + max.25 digits	Permanent call diversion to an external telephone number ON
*412	XX	Call diversion to user XX ON when no reply
*412	0 + max.25 digits	Call diversion to an external telephone number ON when no reply
*413	XX	Call diversion to user XX ON when engaged
*413	0 + max.25 digits	Call diversion to an external telephone number ON when engaged

Code No.	Input	Explanation
Doorbell call re-routing outwards		
*4150		Re-routing the door bell OFF
*4151		Re-routing the door bell ON
Follow Me		
*420		Follow me OFF
*421	XX	Follow me from user XX ON
Do not disturb		
*430		"Do not disturb" OFF
*431		"Do not disturb" (internal)
*432		"Do not disturb" (external)
*433		"Do not disturb" (internal and external)
Call waiting security		
*440		Call waiting security OFF
*441		Call waiting security (internal)
*442		Call waiting security (external)
*443		Call waiting security (internal and external)
Automatic dialling - emergency services number - babyphone feature		
*450		Automatic dialling OFF
*451		Automatic dialling ON
Programming a wake-up call / call at an appointed time (reminder)		
*460		Wake-up call / call at an appointed time OFF
*461	hhmm	Unique wake-up call ON at hhmm
*462	hhmm	Daily wake-up call ON at hhmm
*463	hhmm	Daily reminder ON at hhmm
*464	hhmm 1 2 3 ...	Wake-up calls for particular days (1 = Mo ... 7 = Sun) at hhmm
*465	hhmm 1 2 3 ...	Calls at appointed time (reminder) for particular days (1 = Mo ... 7 = Sun) at hhmm

Code No.	Input	Explanation
Delete / print charge account		
*4710	XX	Delete charge account of user XX
*4711	XX	Print charge account of user XX (user's own charges)
*4720		Delete charge accounts of all users
*4721		Print charge accounts of all users
*4730		Delete charge account of the unit
*4731		Print charge account of the unit (telephone company charges)
Hearing the music-on-hold and audible tones		
*4800		Listen to current music-on-hold
*481	00 - 12	Listen to audible tones
Rejecting a waiting call		
R *49		You reject a waiting call (caller receives an engaged tone)
Picking up an external call		
*6		Picking up an external call
Picking up an internal call or a call taken from a telephone answering machine		
XX 6		Picking up an internal call or a call taken from a telephone answering machine from user XX
Speed dialling destinations		
*7	00 - 99	Call speed dialling destination 700-799
*8	00 - 99	Call speed dialling destination 800-899
Initiating an internal/external return call		
9		Initiating a return call: internal when engaged or no reply, external when engaged
ISDN transmitting (displaying) the caller's own telephone number		
*500		... to the person being called OFF
*501		... to the person being called ON
*502		... to the person being called, like with ISDN telephones
*510		... to the person calling OFF
*511		... to the person calling ON
*512		... to the person calling, like with ISDN telephones

Code No.	Input	Explanation
ISDN call forwarding at the multipoint interface		
*520	MSN-Index	Call forwarding for MSN OFF
*521	MSN-Index+700-899 (Speed dialling dest.)	Permanent call forwarding for MSN
*522	MSN-Index+700-899 (Speed dialling dest.)	Call forwarding when no reply for MSN
*523	MSN-Index+700-899 (Speed dialling dest.)	Call forwarding when engaged for MSN
ISDN call forwarding at equipment connection		
*520		Call forwarding OFF
*521	700-899 (Speed dialling dest.)	Permanent call forwarding
*522	700-899 (Speed dialling dest.)	Call forwarding when no reply
*523	700-899 (Speed dialling dest.)	Call forwarding when engaged
ISDN holding a line		
R *53		Holding a line - the caller hears the message 'Your line is on hold'
ISDN three-way conference		
R *54		Three-way conference (conference between an internal user with two external users via a B-channel)
ISDN parking calls		
R *55	XX	Parking a call with transaction number XX
R *56	XX	Pick up a parked call with transaction number XX
Deleting an ISDN return call when engaged (CCBS)		
*57		A return call initiated by an engaged external user is deleted
Load new unit software from server		
*58	YYYY	After entering PIN YYYY, the automatic update procedure will be started
ISDN malicious call tracing		
R *59		Traces malicious or obscene phone calls

3.4 Programming - summary

The following table lists a summary of all programming procedures and the code numbers to be dialled. See the "Installation and programming" book for a detailed description.

Code No.	Index	Input	Explanation
General tasks of installation technician			
*9000			Start programming mode
*9001			Activate factory defaults
*9002			Restore old settings
*9003			Delete all settings activated by user(s)
*9009			Reset unit
*9999			Exit programming mode
Programming the point to point connection point			
*901	0	max. 12-digit telephone No.	Set up unit telephone number
*901	1	X	Number of digits in the extension numbers X=1-3
*9013	00 - 29	XX	Assigning telephone number XX to the extension number index
Programming the point to multipoint connection point			
*911	0 - 9	max. 12-digit telephone No.	Assignment of the MSNs to the index
Programming the types of calling for external numbers			
*912	0 - 9 / 00 - 29	11 12 13 ...	Call allocation daytime service for external port with MSN/DDI
*913	0 - 9 / 00 - 29	11 12 13 ...	Call allocation night service for external port with MSN/DDI
*914	0 - 9 / 00 - 29	11 12 13 ...	Call allocation call diversion for external port with MSN/DDI
Programming the types of calling for door calls			
*9151	1 / 2	11 12 13 ...	Call allocation daytime service for door intercom - button 1 or 2
*9152	1 / 2	11 12 13 ...	Call allocation nighttime service for door intercom - button 1 or 2
Programming an external destination for door intercom calls			
*9153		max. 25-digit telephone No.	Call diversion destination 1. bell button outward

Code No.	Index	Input	Explanation
Enter dialling code			
*916		max. 7-digit telephone No.	Enter your own dialling code
Call rejection			
*917	0		Call rejection OFF for all MSNs/DDIs
*917	1		Call rejection ON for all MSNs/DDIs
*918	0 - 9 / 00 - 29		Call rejection OFF for MSNs/DDIs
*919	0 - 9 / 00 - 29		Call rejection ON for MSNs/DDIs
Specify print of data for incoming and outgoing calls			
*9200			Print all call data OFF
*9201			Print all call data ON
*9202		XX	Call data for user XX OFF
*9203		XX	Call data for user XX ON
*9205			Print without telephone number
*9206			Print with telephone number
*9207			Print with truncated telephone number
Specify print of data for calls that were not accepted			
*92040			Printing OFF
*92041			Print without telephone number
*92042			Print with truncated telephone number
*92043			Print with complete telephone number
Define charge factors for the charge accounts			
*9208		001 - 255	Value of a charge unit in hundredths (Telekom)
*9209		001 - 255	Value of a charge unit in hundredths (internal)
Programming the charge account			
*904	XX	YYY	Activating / increasing the charge account for user XX by YYY EURO
*905	XX		Deactivation of the charge account for user XX

Code No.	Index	Input	Explanation
Personal identifi. No. (PIN) for remote modification of call diversion destination			
*922	XXXX	YYYY YYYY	XXXX = old PIN / YYYY new PIN
Answering machine enabled for remote modification of call diversion destination			
*9240			Remote modification via answering machine OFF
*9241		XX	Remote modification enabled at answering machine at user XX
MSN/extension No. enabled for remote modification of call diversion destination			
*925			MSN/DDI for deactivating remote modification of the call diversion
*926	0 - 9 / 00 - 29		Activate MSN/DDI for remote modification of the call diversion
Programming the telephone number for automatic dialling			
*923		max. 25-digit telephone No.	Programming the hotline number for automatic dialling (external including exchange identification code "0")
Programming the time for the call diversion			
*927		005 - 110 seconds	Daytime service changes call variation changes to call diversion after a pre-set time
Answering machine: programming engaged tone			
*928		XX	Engaged tone activated for user XX
*929		XX	Engaged tone deactivated for user XX
Activating the charge pulse			
*9300			Charge pulse OFF for all users
*9301			Charge pulse ON for all users
*9302		XX	Charge pulse OFF for user XX
*9303		XX	Charge pulse ON for user XX
*9305			Charge pulse 16 kHz
*9306			Charge pulse 12 kHz
Specifying the ringing rhythm			
*931	0 - 9 / 00 - 29		Program ringing rhythm 1 for telephone number (MSN/DDI)
*932	0 - 9 / 00 - 29		Program ringing rhythm 2 for telephone number (MSN/ DDI)
*933	0 - 9 / 00 - 29		Program ringing rhythm 3 for telephone number (MSN/ DDI)

Code No.	Index	Input	Explanation
Assigning the user to telephone number			
*934	0 - 9 / 0	XX	Assigning the user to telephone number
Programming the authorisation of the user to occupy a telephone number			
*935	0 - 9 / 0	11 12 13 ...	Users may occupy telephone number (MSN/Port at point to point connection)
Assignment of the user port to a telephone number			
*936	xx	yy	Port number xx assigned telephone number yy
Programming the inquiry (recall) function with a pulse dialling telephone			
*937		n (1...9)	Pulse dialling inquiry call with digit n
Timing-controlled switch-over in the type of calling			
*940			Deactivate timing control
*941			Activate timing control
*942		hhmm	Enter the time at which the night service is to be activated (hh = hours, mm = minutes)
*943		hhmm	Enter the time at which the night service is to be deactivated again (hh = hours, mm = minutes)
Entering the date and time			
*944	TTMMJJ	hhmm	Entering date and time
Display of the telephone number of the caller (CLIP)			
*945		XX	Telephone number display for user XX OFF
*946		XX	Telephone number display for user XX ON (B & O BeoCom 2500 before 1998)
*947		XX	Telephone number display for user XX ON
*948		XX	Internal telephone No. display for user XX OFF
Define terminal/user types			
*951		XX	Programming the terminal connections to: telephone
*952		XX	Combination unit
*953		XX	Answering machine (not possible with master set)
*954		XX	Fax (not possible with master set)
*955		XX	Modem (not possible with master set)
Programming the type of exchange line seizure			
*956		XX	Automatic exchange line seizure for user XX OFF
*957		XX	Automatic exchange line seizure for user XX ON

Code No.	Index	Input	Explanation
Programming the alarm port			
*958		XX	Alarm port as user port XX
Setting flash time			
*9590			Flash time 50 - 110ms
*9591			Flash time 50 - 350ms
*9592			Flash time 50 - 750ms
Programming the user authorisation level			
			User XX has...
*962		XX	no exchange authorisation (not possible with master set)
*963		XX	authorisation for incoming calls
*964		XX	authorisation to make local calls
*965		XX	authorisation to make domestic calls
*966		XX	unrestricted authorisation
Programming the call number memory			
*97	00 - 99	max. 25-digit telephone No.	Programming the call number memory 0-99, no "0" for exchange line seizure given
*98	00 - 99	max. 25-digit telephone No.	Programming the call number memory 100-199, no "0" for exchange line seizure given
Programming the local area numbers			
*99	00 - 19	max. 25-digit telephone No.	Programming the local area numbers
Programming the blocking of specific types of numbers			
*99	20 - 39	max. 25-digit telephone No.	Programming the blocking of specific types of number

Code No.	Index	Input	Explanation
Telephone number for updating the unit software			
*995		max. 25-digit telephone No.	Programming the telephone number for updating the unit software
Programming the country code			
*902		XX	Setting the country code (default when supplied: 00 for Germany)
Programming the type of charge information			
*903	0		Charge information as facility (factory default)
*903	1		Charge information as display information (e.g. Switzerland)
Programming the specific internal dialling tone			
*906	0		Normal internal dialling tone
*906	1		Specific internal dialling tone as permanent tone with interruptions
Programming the master authorisation			
*907	0		Only user 11 has master authorisation
*907	1		All users may have master authorisation
*908		XX	User XX has no master authorisation
*909		XX	User XX has master authorisation

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G U A R A N T E E

Applicable in the Federal Republic of Germany.

The following conditions, which outline the essential requirements and scope of our guarantee do not affect the consumer's statutory rights resulting from the sales agreement between the dealer and the consumer. We provide a guarantee for this unit in accordance with the following conditions:

1. We will repair free of charge in accordance with the following conditions (Nos. 2 to 6) any damage or deficiencies to the equipment that is demonstrably the result of an error at the factory if you inform us immediately after ascertaining it and not more than 24 months after delivery to the end user. The guarantee does not cover easily breakable components such as glass or plastic parts, or light bulbs. Neither does the guarantee cover any minor deviations from the scheduled construction which have no significant influence on the value or functionality of the equipment, nor does it cover damage due to the chemical and electrochemical influence of water as well as general damage due to unusual environmental conditions.
2. Under this guarantee, we will repair defective components free of charge or replace them by components in perfect order, as we see fit. Repairs at the place where the equipment has been installed can only be requested in the case of major, stationary (fixed) units. Other units covered under the terms of this guarantee must be sent to our authorised workshop. The guarantee registration certificate (filled out) and purchase receipt must be returned with the equipment, together with details of purchase and/or delivery. Replaced components become our property.
3. The guarantee rights become invalid if repairs or made or equipment is interfered with by persons who are not authorised to do so, or when our equipment is fitted with adaptations or accessories that have not been co-ordinated with our equipment.
4. Within the first 24 months following delivery, we will meet the guarantee conditions without any charge for additional costs (travel expenses, the cost of travel-to-work time, freight and packaging charges).
5. Activated guarantees effect neither an extension of the guarantee period nor do they mean that a new guarantee period commences. The term of the guarantee for any replacement parts inserted will end with the term of the guarantee for the entire unit.
6. If the damage or deficiency cannot be eliminated, or the subsequent reconditioning/improvement is rejected or unreasonably delayed by us, either a replacement will be delivered free of charge (within 24 months of the date of purchase/delivery) at the wish of the end user, or the loss in value compensated or the unit will be taken back and the purchase price returned (though the amount shall not exceed the usual market price).

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