

MiVoice 4420 IP Basic (DBC 420) for MiVoice MX-ONE

USER GUIDE



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IMPORTANT SAFETY INSTRUCTIONS AND INTRODUCTION

IMPORTANT SAFETY INSTRUCTIONS (ENGLISH)

When using your telephone equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, including the following:

- Do not use this product near water, for example, near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool.
- Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
- Do not use the telephone to report a gas leak in the vicinity of the leak.
- Use only the power cord indicated in this manual.

SAVE THESE INSTRUCTIONS

IMPORTANTES MESURES DE SÉCURITÉ (FRANÇAIS)

Certaines mesures de sécurité doivent être prises pendant l'utilisation de matériel téléphonique afin de réduire les risques d'incendie, de choc électrique et de blessures. En voici quelquesunes:

- Ne pas utiliser l'appareil près de l'eau, p.ex., près d'une baignoire, d'un lavabo, d'un évier de cuisine, d'un bac à laver, dans un sous-sol humide ou près d'une piscine.
- Éviter d'utiliser le téléphone (sauf s'il s'agit d'un appareil sans fil) pendant un orage électrique. Ceci peut présenter un risque de choc électrique causé par la foudre.
- Ne pas utiliser l'appareil téléphonique pour signaler une fuite de gaz s'il est situé près de la fuite.
- Utiliser seulement le cordon d'alimentation indiqué dans ce manuel.

CONSERVER CES INSTRUCTIONS

INTRODUCTION

These directions for use describe the user procedures to handle the features available for MiVoice 4420 IP Basic, hereafter called DBC 420, when the telephone is used with MX-ONE Service Node.

All the procedures, suffix digits, tone messages and times used in this document are according to the standard application system.

Not all exchanges are equipped with all features. By categorization, it is possible to vary the number of features assigned to each individual extension. The person (department) responsible for telecommunications in your organization will inform you which features have been assigned to you.

The DBC 420 is an IP telephone conforming to the H.323 standard. The telephone supports Dynamic Host Configuration Protocol (DHCP) for determination of IP addresses.

This telephone can be used without lifting the handset.

When stated Lift the handset before dialing a procedure or a telephone number you can dial directly without lifting the handset.

For information, see 2.14 Loudspeaker / Headset Functions on page 9

For information, see 12 Miscellaneous on page 52

2 DBC 420

2.1 DBC 420

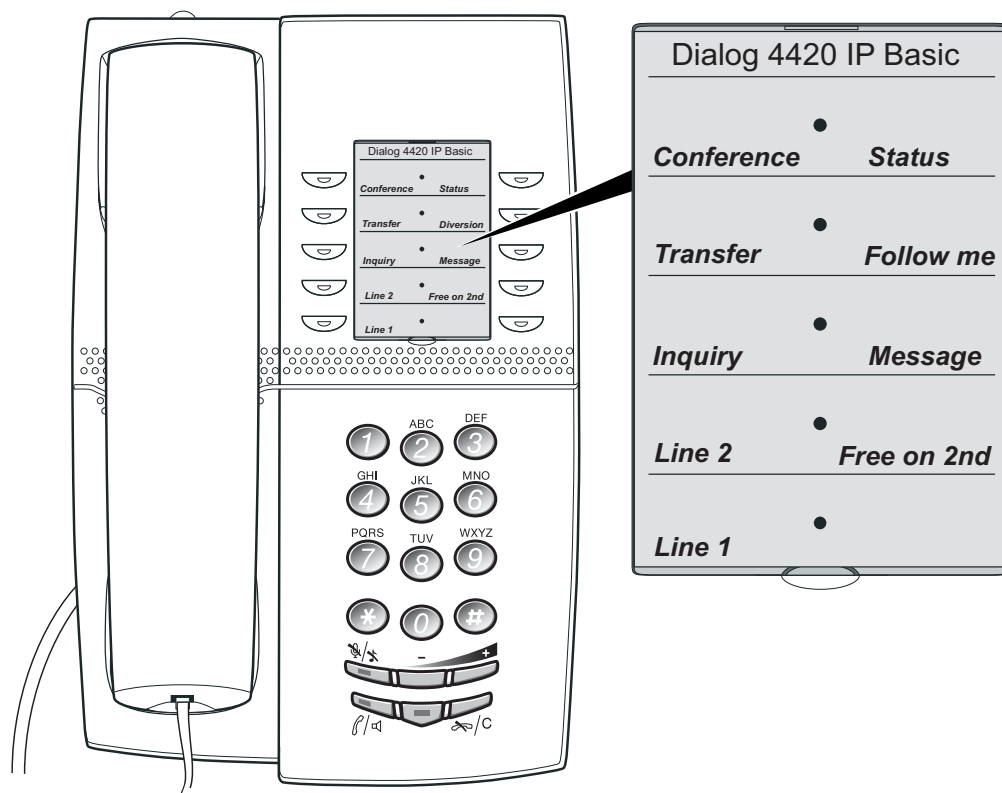


Figure 1: DBC 420

The DBC 420 has a monitor function.

Most of the functions assigned to the function keys in the figure (Conference, Follow-me, and so on) can be moved and removed, except the functions **Line 1**, **Line 2** and **Inquiry** that are fixed. The placing of the functions, as shown in the figure above, is the default setting. This can be changed by the system administrator.

By removing one of these functions, the key can instead be used as a Dial-by-function key.

Any function key can be programmed with a telephone number and labelled with a name. This means that when you press that function key the desired telephone number is automatically dialed. See 10.3 Programming a Dial-by-Function Key on page 48 for programming.

2.2 KEY FUNCTIONS FOR DBC 420

The key functions for the DBC 420 are:

The **Clear** key is used to disconnect a call.



Conference
Follow-me

The **Conference** key is used for making conference calls.

The **Follow-me** key indicates activation/deactivation of Follow-me and absence information.

Free on 2nd

The **Free on 2nd** key is used to activate the possibility to receive a second call while you already have an active call.

Inquiry

The **Inquiry** key is used only for initiating calls.

Line 1

The **Line 1** key is used for initiating and receiving calls.

Line 2

The **Line 2** key is used for initiating calls, can also be used for receiving a second call.

Message

The **Message** key lamp indicates that you have a message and by pressing the key the message is retrieved.



The **Mute** key is used to interrupt the speech connection. When the Mute key has been pressed you can confer and the connected party will not hear. By pressing it in idle or ringing state the silent ringing is activated. Any key pressing will deactivate the silent ringing again.



The **Speaker/Call** key is used for monitoring a connection and as "call" key after entering digits.

Status

The **Status** key is used for monitoring the Network link, double flashing if no network is available, flashing slowly during start up until the telephone is logged on to the PBX and when logged on, indicating this with a steady light.

Transfer

The **Transfer** key is used for transferring calls.



The **Volume** keys control the volume for incoming speech (handset and loudspeaker) and the ringing volume. The **+** key increases the level and the **-** key decreases the level.

2.3

SOFT KEYS

Note: Not applicable.

2.4

POWER FEEDING

The telephone is fed by an external 24 volts AC/AC adapter or alternatively through the IP network (LAN) from a power hub. The power must be connected to the telephone before any use. See installation instructions for *DBC 420*.

The telephone does not work when there is a power failure.

2.5

CONNECTING THE TELEPHONE

Connect the handset, the power, and the LAN cable, see 2 Connecting the Telephone on page 7.

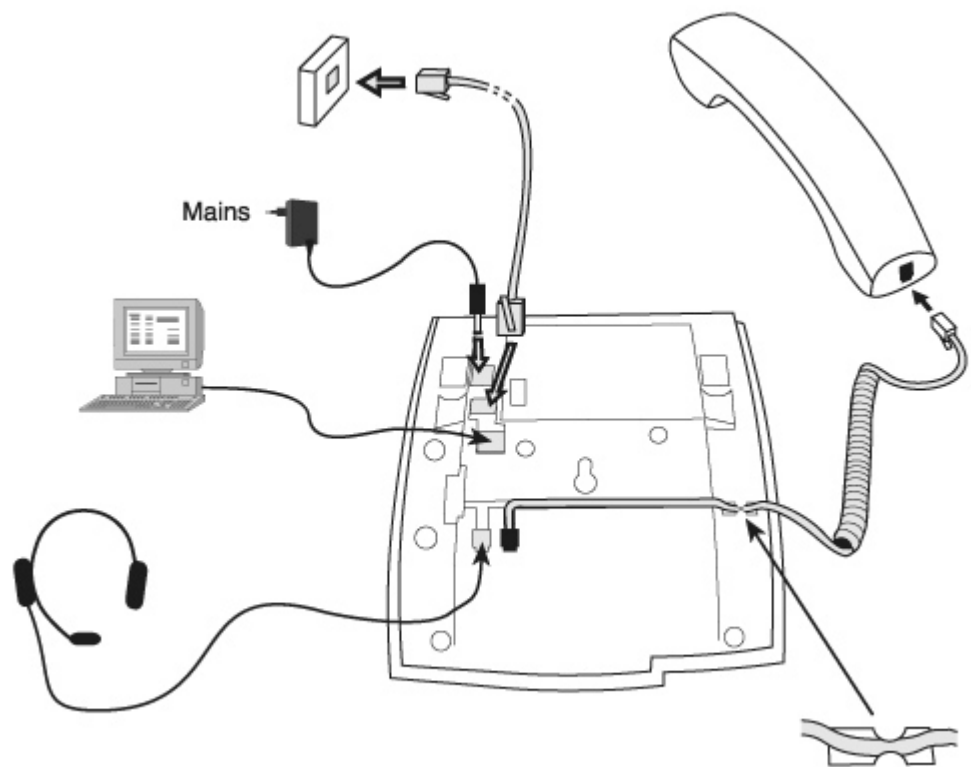


Figure 2: Connecting the Telephone

If a headset will be used, connect it according to 2 Connecting the Telephone on page 7

If your PC will use the same LAN outlet as your telephone, connect the PC as shown in 2 Connecting the Telephone on page 7

Note: When the telephone is starting, a connected PC will lose the LAN connection for approximately 10 seconds.

2.6 STARTING THE TELEPHONE

Make sure that the telephone is connected to the IP network (LAN).

2.6.1 STARTING THE TELEPHONE

About 5 seconds after the telephone is connected to the power, the Mute lamp is lit for 5 seconds.

The administrator mode is used to change the IP settings in the telephone. This mode is reserved for the maintenance personnel.

If the status lamp is flashing slowly, it indicates that the telephone is not ready for use. If the lamp is double flashing, there is no LAN connection. Check the cabling.

The IP telephone gets the IP addresses from the network.

The telephone checks if new software has to be loaded. If the software needs to be updated, the procedure is fully automatic. The software is loaded internally in the telephone.

The telephone performs a test that the data circuits in the telephone work. If all goes well the Inquiry lamp is lit for 1 second.

The telephone is automatically registered to the PBX. When the telephone is registered the Status lamp is lit (steady light).

The start up procedure normally takes about one minute. If the telephone needs to update the firmware (FW), the start up procedure can take between two and three minutes.




Registered and ready for use:		steady light
Starting up:		500 ms on, 500 ms off flashing slowly
No network connection:		50 ms on, 50 ms off, 50 ms on, 500 ms off double flash

Figure 3: Indications on Status Lamp

2.7 LOGGING ON THE TELEPHONE

The telephone is always logged on with a default number. You cannot log on or log off.

2.8 LOGGING OFF

You cannot log off your IP telephone.

2.9 CHECKING SOFTWARE VERSION

It is only possible for the administrator to check the software version in the telephone (using the Web interface).

2.10 FAULT LOCATING

This section contains information on how to solve common operational problems, and warnings that might occur.

Table 1 Fault Locating and Actions

Fault	Probable cause	Action or comment
The telephone is locked up	Disturbance on the LAN	Restart the telephone by pressing the keys C (clear), mute and # simultaneously for one to two seconds
Status lamp blinking with a double flash	There is no connection to the LAN	Check that the LAN cable between the LAN outlet and the telephone is connected

Fault	Probable cause	Action or comment
Status lamp blinking	The lamp is lit during startup phase, if it does not turn off after several minutes the reason may be: no DHCP access, no gatekeeper defined, not possible to register to the system	Ask administrator for assistance.

2.11 TRIPLE ACCESS LINE

Your telephone has two incoming/outgoing access lines, **Line 1** and **Line 2** (with the same extension number) and one **Inquiry** key on which you can only make calls. You can make or receive calls on **Line 1** and **Line 2** by pressing the corresponding key and make calls by pressing the **Inquiry** key. When pressing a **Line** key the previous call will automatically be put on hold or common hold.

2.12 DISPLAY

The telephone does not have a display.

2.13 MENU STRUCTURE

Note: Not applicable.

2.14 LOUDSPEAKER / HEADSET FUNCTIONS

2.14.1 HANDSFREE WITH LOUDSPEAKER

Note: Not applicable.

2.14.2 MONITOR MODE

This function offers you the possibility to initiate a call by dialing the digits without lifting the handset, and to monitor the progress of a call in the loudspeaker. As soon as you want to speak you must use the handset microphone as this is the only microphone in the DBC 420 02 telephone.

2.14.2.1 *Making Calls*

- 1) Dial the wanted number.
- 2) When the other party answers, lift the handset.

2.14.2.2 *Receiving Calls*

Note: Not applicable.

2.14.2.3 *Changing from Monitor to Handset*

Lift the handset to change from a headset to the handset.

2.14.2.4 *Changing from Handset to Monitor*

To change from a handset to a monitor, press the **Speaker** key and replace the handset.

2.14.2.5 *Clearing a Call*

Press the **Clear** key to clear a call.

2.14.3 LOUDSPEAKING WITH HANDSET

Note: Not applicable.

2.14.4 HEADSET

Note: Not applicable.

2.15 TONES AND RING SIGNALS

2.15.1 TONE CHARACTERISTICS

The different tone signals in the telephone are as follows:

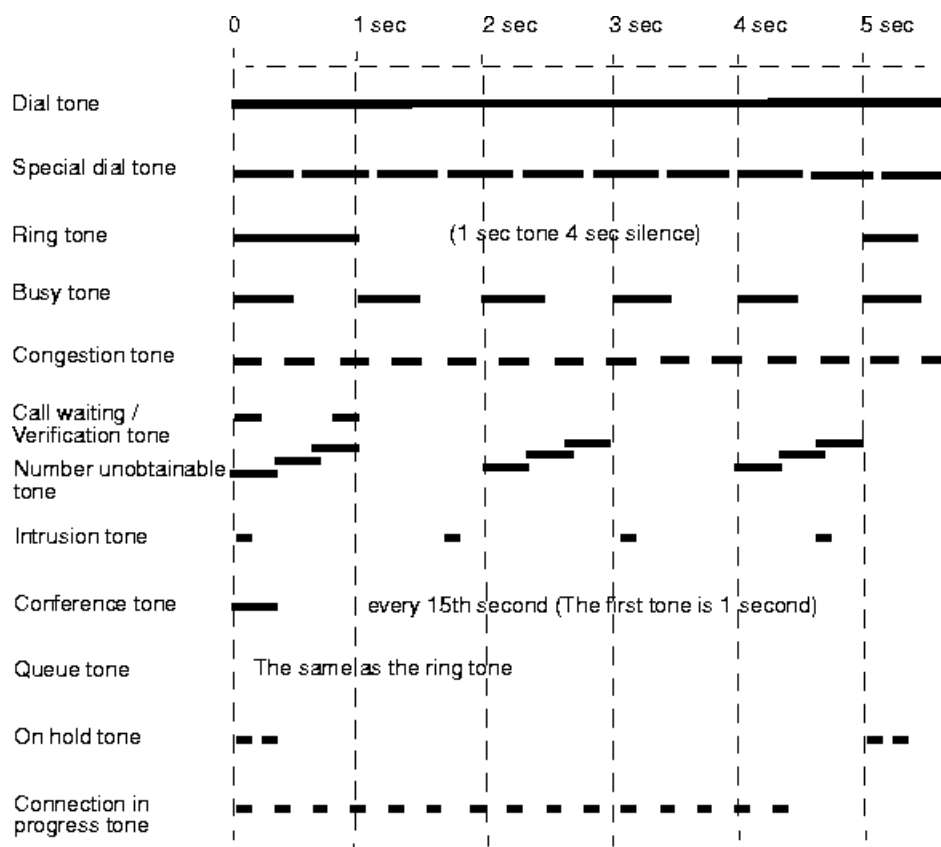


Figure 4: Tone Signals

Note: These are the standard tones, but they can differ depending on the market.

Note: The conference tone can be disabled by the system administrator.

2.15.2

RING SIGNALS

The following types of ring signals can be generated:

Ringing signals

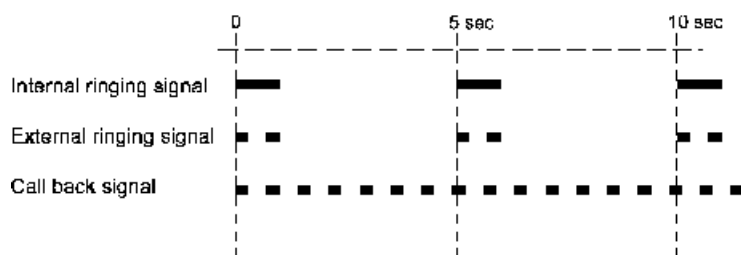


Figure 5: Ring Signals

Note: The ring signal can differ depending on the market.

At an incoming call on the free on 2nd line the telephone rings only the first period and with a low level. This is valid for both the internal and external ring signal.

2.15.3 RINGING OPTIONS

The following ringing options can be programmed on the Monitoring or Line keys:

- 0 =** Silent.
- 1 =** Periodic (repetitive) ring signal.
- 2 =** Delayed start of the periodic ring signal.
- 3 =** One muted ring signal. Only one ring signal is generated with a low level.
- 4 =** One delayed and muted ring signal.

To change the ringing option, see 10.4 Programming the Type of Ring Signal on a Line or Monitoring key on page 48.

2.15.4 RING SIGNAL VOLUME

You can control the ring signal volume by pressing the **+** key and the **-** key when the telephone is idle (no call connected) or when the telephone is ringing.

2.15.5 SILENT RINGING

If the **Mute** key is pressed while the telephone is idle or when ringing, the tone ringer will not be activated for the subsequent call(s). The lamp for Line 1 or Line 2 will be flashing at incoming call. The silent ringing function will be active until you activate a function in the telephone, for example lift the handset or press a key. To indicate that the function is active the Mute lamp is lit.

2.15.6 LAMP INDICATIONS

Off

Indicates free or non-requested function

Fast flash

Indicates an incoming call

Slow flash

Indicates a call that is put on hold or common hold

Lit with fast blink

Indicates a key that is using the line

Lit

Indicates an activated function

3 INCOMING CALLS

An incoming call is announced by ring signals and a flashing lamp. There are two different ring signals, one for internal and one for external calls. If the feature parallel ringing is activated, the call will ring on more than one telephone, see 3.7 Parallel Ringing on page 14.

3.1 RECEIVING CALLS ON THE LINE 1 KEY (NORMAL CASE)

Lift the handset to receive calls.

3.2 RECEIVING CALLS ON THE LINE 2 KEY

Lift the handset and press the **Line 2** key to receive calls.

3.3 RECEIVING CALLS ON ANY OTHER KEY

- 1) Lift the handset.
- 2) Press the **Monitoring** key that indicates an incoming call.

3.4 RECEIVING A SECOND CALL

A new incoming call (second call) can be indicated even if there is another **Line** key that is already in speech. Two incoming calls cannot be received simultaneously on the **Line** keys.

- The function key **Free on 2nd** must be activated on your telephone.
In this case you can have a call on the Line 1 key and a second call is signaled on the Line 2 key (the Line 2 lamp flashes and a muted ring signal is heard).

The second call can be answered in one of the following ways:

After terminating the ongoing call

- a) Press the **Clear** key to terminate the ongoing call.
- b) Press the **Line 2** key to answer.

After parking the ongoing call

Press the **Line 2** key to answer (the ongoing call is automatically put on hold or common hold).

After transferring the ongoing call

- a) Press the **Inquiry** key.
- b) Dial the number to the party to which the call will be transferred.
- c) Press the **Transfer** key (the ongoing call is transferred).
- d) Press the **Line 2** key to answer.

- The calling party has initiated a Call waiting (and your telephone has category for receiving Call waiting calls). In this case you can have a call on the **Line 2** key and a muted ring signal or call waiting tone, based on configuration in terminal, is heard.

The waiting call can be answered in one of the following ways 5.2.2 Answering a Call Waiting Call on page 25.

3.5

IMMEDIATE SPEECH CONNECTION

Note: Not applicable.

3.6

INDIVIDUAL CALL PICK-UP

If you hear your telephone ringing when you are in a colleague's room, you can answer your call from the colleague's extension. In the same way, you can help out nearby colleagues by answering their calls if they happen to be out of their rooms. To answer these calls, you just pick up the nearest telephone and use the following procedure:

To pick up a call

- 1) Lift the handset (dial tone).
- 2) Dial the extension number (busy tone).
- 3) Press the **8** key

3.7

PARALLEL RINGING

Parallel ringing makes it possible to ring several terminals simultaneously whenever there is an incoming call. Parallel ringing can prevent the caller from hanging up the telephone due to the long chain of ring signals. The terminals included in the parallel ringing list are initiated by the system administrator but Parallel ringing can temporarily be prevented by the end-user.

There is a main extension in the Parallel ringing list. Only incoming calls to the main extension are distributed to the parallel ringing list. Incoming calls to the other extensions will ring only on their respective extensions and they will not be distributed to the other extensions in the list.

3.7.1

TO ANSWER A CALL

The call can be answered on any of the ringing telephones.

3.7.2

TO PREVENT THE PARALLEL RINGING TEMPORARILY

It is possible to prevent the parallel ringing for a telephone in the parallel ringing list by initiating Follow-me.

3.7.2.1

Prevent ringing on one of the telephones

If you want to prevent ringing on one of the terminals in the list, initiate Follow-me to your own extension number, see section 6.2.1 Ordering Follow-me From Own Phone

on page 34.

3.7.2.2 *To restore the parallel ringing*

It is possible to restore parallel ringing for a telephone by deactivating the Follow-me.

3.7.2.3 *For one of the telephones in the list*

When the ringing has been prevented for one single telephone in the list, cancel Follow-me from this telephone, see 6.2.2 Canceling Follow-me From Your Own Phone on page 34.

3.7.2.4 *For all the telephones in the list*

When the ringing has been prevented for all terminals in the list, cancel Follow-me from the main extension, see 6.2.2 Canceling Follow-me From Your Own Phone on page 34.

4 OUTGOING CALLS

4.1 CALLING ANOTHER EXTENSION

You can call another extension by:

Using a dialing procedure

- 1) Lift the handset (dial tone).
- 2) Dial the wanted extension number.

Using a Dial-by-function key

- 1) Lift the handset (dial tone).
- 2) Press the **Dial-by-function** key.

Using a Line or Monitoring key

- 1) Lift the handset (dial tone).
- 2) Press the **Line** or **Monitoring** key to the monitored telephone.

4.1.1 CALLED EXTENSION IS FREE AND ANSWERS

Start your conversation.

4.1.2 CALLED EXTENSION IS FREE BUT DOES NOT ANSWER

New call

Replace the handset and call later.

Automatic call back

- 1) Press the digit **6**.
- 2) Replace the handset

For more information, see 4.5 Automatic Call Back on page 18

4.1.3 CALLED EXTENSION IS BUSY

New call

Replace the handset and call later.

Automatic call back

- 1) Press the digit **6**.
- 2) Replace the handset.

For more information, see 4.5 Automatic Call Back on page 18

Call waiting

- 1) Press the digit **5**.
- 2) Wait for answer.

If Call waiting to the wanted extension cannot be performed due to categorization you will continue to receive busy tone.

Note: If the busy extension selects to ignore the Call waiting indication you can initiate automatic call back.

Intrusion

Press the digit **4**.

For more information, see 5.6 Intrusion on page 27

4.2 CALLING THE PBX OPERATOR

4.2.1 COMMON OPERATOR

- 1) Lift the handset (dial tone).
- 2) Dial the common operator assistant number.

4.2.2 INDIVIDUAL OPERATOR

Use this to talk to a specific operator

- 1) Lift the handset (dial tone).
- 2) Dial the individual directory number of operator.

4.3 MAKING AN EXTERNAL CALL

4.3.1 NORMAL EXTERNAL CALLS

You can make an external call by:

Using dialing procedure

- 1) Lift the handset (dial tone).
- 2) Dial the external access code and the wanted subscriber number.

4.3.2 CALLS ON AN INDIVIDUAL EXTERNAL LINE

Dial **0* individual external line number # route access code and external number*.

4.3.3 FORBIDDEN AREA CODE

If you dial an area code and receive congestion tone this probably means you are not permitted to call the area.

Call the operator assistant and ask for help in establishing the call.

4.4 SPEED DIALING

4.4.1 COMMON SPEED DIALING NUMBERS

External telephone numbers that are of importance, and frequently used by everybody in the company are provided directly by the exchange. These speed dialing number numbers consist of 1-5 digits.

- 1) Lift the handset (dial tone).
- 2) Dial the speed dialing number.

4.4.2 INDIVIDUAL SPEED DIALING NUMBER

Note: Not applicable.

4.4.3 DIAL-BY-FUNCTION KEY

Any function key can be programmed with a telephone number and labelled with a name. This means that when you press that function key the desired telephone number is automatically dialed. See 10.3 Programming a Dial-by-Function Key on page 48 for programming.

To use

- 1) Lift the handset (dial tone).
- 2) Press the **Dial-by-Function** key.

4.4.4 CALL BY NAME

Note: Not applicable.

4.5 AUTOMATIC CALL BACK

If a called extension (in your exchange or in the private network) is busy or not answering, you can request the system to call back automatically as soon as the extension will be free or when it has been used (in cases where no answer has been obtained). You can have several call backs activated at the same time.

Please note that when you return to your office, by lifting and replacing the handset you will inform the system that you are present at your office.

While waiting for an answer to call back you can make and receive calls as usual.

4.5.1 ORDERING

When the other party is busy or does not answer, do the following:

- 1) Press the digit **6**. It can take a couple of seconds before the procedure is performed. The display shows Accepted for some seconds.
- 2) Replace the handset.

4.5.2 ANSWERING

Answer in the normal way within 8 seconds otherwise the Call Back will be cancelled. After answer the system will call the extension number on which you made the call back.

4.5.3 CANCELING A SINGLE CALL BACK

- 1) Lift the handset (dial tone).
- 2) Dial *#37* extension number#*.
- 3) Replace the handset.

4.5.4 CANCELING ALL CALL BACKS

- 1) Lift the handset (dial tone).
- 2) Dial *#37#*.
- 3) Replace the handset.

This procedure cancels call backs to internal parties, busy extensions in private network as well as call back to busy external lines.

4.6 AUTOMATIC CALL BACK IF ALL EXTERNAL LINES ARE BUSY

You can initiate automatic call back, if you receive busy tone because all external lines are busy. You can only have one call back on busy external line activated at the same time.

While waiting for an answer to call back you can make and receive calls as usual.

4.6.1 ORDERING

- 1) Press the digit **6** (or the function key programmed with this feature) for dial tone.
- 2) Dial the complete external number, part of it or no number.
- 3) Dial *#*.
- 4) Replace the handset.

4.6.2 ANSWERING

When a suitable external line becomes free, you will be called back. Answer in the normal way within 8 seconds otherwise the call back will be cancelled. After answer, the dialed external number is automatically transmitted, you may need to dial any remaining digits.

4.6.3 CANCELING A CALL BACK TO AN EXTERNAL LINE

- 1) Lift the handset (dial tone).
- 2) Dial *#37*route access code#*.

- 3) Replace the handset.

4.7 BYPASS

4.7.1 ORDERED BY AN EXTENSION

If you urgently need to talk to a person whose calls are currently being diverted (Follow-me, External follow-me and Message diversion), or who has do-not-disturb active, and you have a category for bypass:

- 1) Lift the handset (dial tone).
- 2) Dial **60* wanted number#*.
- 3) Wait for answer.

4.7.2 ORDERED BY ASSISTANCE

Request assistance from the person answering the call (the answering position or the PBX operator).

The answering position can always call the diverted extension and also transfer calls to the latter.

4.8 DIAL BY NAME

Note: Not applicable.

4.9 EMERGENCY CALL (SOS CALLS)

Dial the emergency number (SOS number).

4.10 NUMBER PRESENTATION RESTRICTION

This function allows the user to restrict its name and number presentation per call on the B-party display.

To order the restriction of the name and number presentation from your telephone, do the following:

- 1) Dial **42#* and wait for dial tone
- 2) Dial the B-number

4.11 RE-DIALING NUMBERS

4.11.1 RE-DIALING THE LAST EXTERNAL NUMBER

- 1) Lift the handset (dial tone).
- 2) Dial *** while in idle state or with dial tone. The last dialed external number is automatically re-dialed.

4.12 NAME AND NUMBER LOG

Note: Not applicable.

4.13 AUTHORIZATION CODE

4.13.1 GENERAL

To each authorization code a Call Information Logging (CIL) code is affiliated. The CIL code is used as the calling party's identity.

To each authorization code a common category or common service profile is affiliated. This is the category or service profile which is used, instead of the extension's, when a call is made using an authorization code.

Authorization code is divided into two different functionality groups:

- Common authorization code

This is a code that does not have to be affiliated to any directory number in the system. The authorization code can however be limited to one telephone. The authorization code cannot be changed by the user.

The common authorization code provides two different functions:

- Locking/unlocking of an extension. When locked a lower common category code or common service profile is used.
- Authorization code dialing. This enables the calling party to use other categories or service profiles than those the extension is programmed with.

- Individual authorization code

This is a code that is always affiliated to a directory number in the system.

The individual authorization code provides three different functions:

- Locking/unlocking of an extension. When locked a lower common service profile is used.
- Authorization code dialing. This enables the calling party to use other categories or service profiles than those the extension is programmed with.
- Changing the authorization code from the phone. This enables the authorization code user to change the code when suitable.

Using Last Number Re-dial on external calls after dialing with common/individual authorization code:

- An **unlocked** extension is allowed to use Last Number Re-dial without a call discrimination check.
- A **locked** extension is allowed to use Last Number Re-dial together with a call discrimination check.

4.13.2

PROCEDURE

4.13.2.1

Dialing from an Extension with a Common Authorization Code

A specific procedure dialed from the extension must be used when making an authorization code call:

- 1) Dial **72* authorization code#*.
- 2) A verification tone is received.
- 3) Continue with the external number.

The authorization code call will only be accepted if the authorization code is valid.

The common service profile associated with the authorization code will be used for the call, except if the authorization code cannot be verified, then the default common service profile will be used instead.

If the category/common service profile of the authorization code is too low for dialed external number, the call is rejected.

4.13.2.2

Locking an Extension with a Common Authorization Code

A specific procedure dialed from the extension will lock the extension. The procedure is:

- 1) Dial **73*authorization code#*.
- 2) A verification tone is received.

The extension will only be locked if the authorization code is valid, the CIL code corresponds to the extension's directory number and the extension is not already locked by either common authorization code or individual authorization code.

Calls from a locked extension, when no authorization code is given, will use the default common service profile.

Calls from a locked extension, using a valid authorization code, will use the common service profile associated with the authorization code.

4.13.2.3

Unlocking an Extension with a Common Authorization Code

The extension can be unlocked in the same manner as for locking. The procedure is:

- 1) Dial *#73*authorization code#*.
- 2) A verification tone is received.

The extension will only be unlocked if the CIL code corresponds to the extension's directory number and is not locked by individual authorization code.

Calls from an unlocked extension, when no authorization code is given, will use the common category or common service profile programmed for that extension.

4.13.2.4 *Dialing with an Individual Authorization Code from Own Telephone*

A specific procedure dialed from the extension must be used when making an authorization code call:

- 1) Dial *75*authorization code#.
- 2) A verification tone is received.
- 3) Continue with the external number.

The authorization code call will only be accepted if the authorization code is valid.

If the category of the authorization code is too low for dialed external number, the call is rejected.

4.13.2.5 *Dialing with an Individual Authorization Code from Another Telephone*

A specific procedure dialed from the extension must be used when making an authorization code call:

- 1) Dial *75*authorization code*DIR#.
- 2) A verification tone is received.
- 3) Continue with the external number.

The authorization code call will only be accepted if the authorization code can be verified and is valid.

If the category of the authorization code is too low for dialed external number, the call is rejected.

4.13.2.6 *Locking an Extension with an Individual Authorization Code*

A specific procedure dialed from the extension will lock the extension:

- 1) Dial *76*authorization code#.
- 2) A verification tone is received.

The extension is only locked if the authorization code is valid and the extension is not already locked by either common authorization code or individual authorization code.

Calls from a locked extension, when no authorization code is given, will use the default common service profile if it is a generic extension or the minimum common category if it is other extensions.

Calls from a locked extension, using a valid authorization code, will use the common category or common service profile associated with the authorization code.

4.13.2.7 *Unlocking an Extension with an Individual Authorization Code*

The extension can be unlocked in the same manner as for locking:

- 1) Dial #76* authorization code#.
- 2) A verification tone is received.

The extension is only unlocked if the authorization code is valid and if the extension is locked with individual authorization code.

Calls from an unlocked extension, when no authorization code is given, will use the common category or common service profile programmed for the extension.

4.13.2.8

Changing an Individual Authorization Code

The individual authorization code can only be changed from your own telephone.

A specific procedure dialed from the extension must be used when changing a individual authorization code:

- 1) Dial **74* previous authorization code*new authorization code#*.
- 2) A verification tone is received.

The authorization code will only be changed if the previous authorization code is valid.

5 DURING CALLS

5.1 ADDITIONAL DIRECTORY NUMBER (ADN)

Note: Not applicable.

5.2 CALL WAITING

If you urgently wish to contact a busy extension, you can indicate to that extension that there is a Call waiting. The Call waiting is indicated either by a tone (the busy extension is an analog extension) or as a second call (the busy extension is a digital system telephone or an IP telephone). If the called extension is not allowed to receive Call waiting signals, you will continue to hear a busy tone. If the busy extension ignores the Call waiting tone, you can initiate Call back.

The capability of initiating or receiving a Call waiting indication is controlled by a category (programmed by the system administrator).

5.2.1 REQUESTING CALL WAITING INDICATION

To send a call waiting signal to the busy number, do the following:

1. Press the **digit 5**.
2. Keep handset off hook. If the called party answers your call waiting request, the call will be established. If the called party does not want to answer your call, you will continue to hear the ring tone until you go on hook.

Note: If the busy extension ignores the Call waiting indication, you can initiate automatic call back.

5.2.2 ANSWERING A CALL WAITING CALL

When you get a call waiting indication (call waiting tone or ring signal and **Line 2** is flashing), there are the following possibilities:

1. Park the ongoing call.
2. End the ongoing call.

If you want to park the ongoing call, do the following to answer the call waiting call:

1. When the ongoing call is on **Line 1** and the **Line 2** flashes to indicate the call waiting call.
2. Press the **Line 2** key. The call on **Line 1** is automatically parked.
3. To retrieve the other call press the line key again.

If you want to end the ongoing call and then answer the call waiting call:

1. End the ongoing call.
2. Wait for ring signal.
3. Lift the handset to answer the waiting call.

5.3

CONFERENCE

You can establish speech connections with up to seven parties. Only the conference leader (that is, the person initiating the conference call) can invoke participants.

Note: The conference tone can by categorization be disabled.

5.3.1

INITIATING A CONFERENCE

To initiate a conference, do the following:

- 1) A call to the first party is established on the **Line 1** key.
- 2) Press the Conference key, the Inquiry key or the **Line 2** key.
- 3) Dial the second party's extension number (inform about the conference).
- 4) Press the **Conference** key.

During the conference, conference tone will be heard.

5.3.2

ADDING A NEW PARTY IN A CONFERENCE

To add a new party in a conference, do the following:

- 1) Press the **Conference** key, the **Inquiry** key or any idle **Line** key (Line 1 or 2).
- 2) Dial the new party's extension number (inform about the conference).
- 3) Press the **Conference** key.

5.3.3

INTERNAL CONSULTING DURING A CONFERENCE

As a conference leader you can make an Inquiry call to one of the conference members.

Doing this you will get busy tone and to reach the conference member, you must use the Intrusion procedure, see 5.6 Intrusion on page 27.

- 1) Press the **Inquiry** key (dial tone).
- 2) Dial the extension number (busy tone).
- 3) Press **4**.

You will now be connected with this conference member outside the conference for consultation. You can also release him/her from the conference.

Returning to the conference is possible as follows:

- Return to the conference together with the consulted conference member by pressing the **Conference** key.
- Refer back to conference: You will return to the conference and the consulted conference member will be disconnected from the conference.
- Clear the call and then refer back: The consulted conference member will be disconnected from the conference.
- Make an Inquiry call: The consulted conference member will be disconnected from the conference.

5.3.4 LEAVING A CONFERENCE

To leave a conference, replace the handset.

Note: A tone burst is heard each time a participant enters or leaves the conference. The conversation is changed back to a normal two party connection when there is only two parties left. When the conference leader leaves the conference the conference will continue and the first one to park the conference will be the new conference leader.

5.4 STORING CUSTOMER IDENTITY USING FEATURE CODE

This function allows a customer identity (CID) to be associated to an external caller by dialing a feature code when an external call is connected to the extension.

To enter a customer identity when you are in speech with an external party, do the following:

- 1) Park the external party by pressing a free access key on your telephone, wait for dial tone.
- 2) Dial **77* wanted customer identity#* (dial tone). The wanted customer identity is a number that can consist of 1 to 20 digits. Press the **Clear** key.
- 3) You could now either return to the external party by pressing the access key of the parked call or press the free access key again and prepare for a transfer of the external party by dialing the number you want to transfer to.

This feature requires that the monitoring of the extensions is started.

5.5 DISPLAY OF CHARGING

Note: Not applicable.

5.6 INTRUSION

Depending on the authorization of your extension there is another option for getting through to a busy extension. You can use Intrusion which means that you are connected to the ongoing call after a short tone burst.

To order intrusion when the other party is busy, press the digit **4**.

If intrusion on the called extension is not allowed you will continue to receive busy tone.

Before the intrusion is performed a warning tone is sent to the parties in the ongoing call. During the time the three parties are connected a warning tone will be heard.

Note: The warning tone, both before and during the intrusion, can be categorized and disabled.

5.7 INTRUSION ON A SPECIFIC EXTERNAL LINE

Note: Not applicable.

5.8

INQUIRY

During the course of an ongoing call, you may call another extension or subscriber.

When you have a speech connection on one of the **Line** keys, do the following to make an inquiry:

- 1) Press **Inquiry** key or any idle **Line** key (Line 1 or 2). The connected party is automatically put on hold or common hold.
- 2) Dial the extension/external number.

To revert to the original party, do the following:

- 1) Press the **Clear** key (if you have finished the inquiry).
- 2) Press the **Line** key that is parked.

Other features available during inquiry are:

- Referring back, see 5.11 Refer Back on page 30.
- Transfer, see 5.14 Transfer on page 31.
- Conference, see 5.3 Conference on page 26.

5.9

MULTIPLE REPRESENTED DIRECTORY NUMBER (MDN)

The directory number assigned to a telephone can be multiple represented in other telephones. When the *directory number* is represented as a key on other digital system telephones, this key is called the MDN key. When an incoming call to the monitored extension is answered by pressing the MDN key on the monitoring telephone, the monitored telephone will be busy. An MDN key cannot be defined on an IP telephone.

For the telephone, it is possible to:

- Be multiple represented on a digital telephone as a specific line pick-up with a function key (MNS key).
- Supervise other extensions, see 5.9.1 Monitoring Key (MNS Key) on page 28.

5.9.1

MONITORING KEY (MNS KEY)

It is possible to monitor and answer calls to other extensions from a programmable function key on the IP telephone. This function is also called (Multiple represented directory number with dial-by-function key (MNS) and is often used in Boss-Secretary applications.

The following status can be indicated on the Monitoring key:

- The monitored extension is free (lamp is off)
- An incoming call to the monitored extension (lamp with fast flash and the calling party number is shown in the display)
- The monitored extension is busy (lamp is lit)
- The monitored extension has performed common hold (lamp with slow flash)

The **Monitoring** keys are initiated by the system administrator.

When you log on to another IP telephone the **Monitoring** keys are automatically moved to the new IP telephone.

5.9.1.1 *Receiving a Call*

An incoming call to the monitored telephone is indicated on your IP telephone by the Monitoring key that starts flashing and a ring signal can also be heard. The type of ring signal can be changed by the end user, see 10.4 Programming the Type of Ring Signal on a Line or Monitoring key on page 48.

5.9.1.2 *Answering a Call*

The incoming call can be answered in your telephone in one of the following ways:

- 1) Lift the handset and press the **Monitoring** key. Wait until the *connection in progress tone* has become silent and start to talk.
- 2) Press the **Monitoring** key. If loudspeaker preset mode is selected, you can only listen to the other party but if you want to speak to the other party, use the handset. Wait until the *connection in progress tone* has become silent and start to talk.
- 3) Press the **Monitoring** key. If headset preset mode is selected, the call will go on with headset connection. Wait until the *connection in progress tone* has become silent and start to talk.

If you already have an ongoing call in your telephone, you can still answer the new call. When the **Monitoring** key is pressed, the first call is automatically put on hold or common hold and the new call will be active.

5.9.1.3 *Making a Call*

It is possible to make a call to the monitored extension by lifting the handset and pressing the **Monitoring** key.

5.9.1.4 *Parking*

If the monitored telephone has performed common hold, this is indicated with slow flashing on the **Monitoring** key.

The parked call can be picked up in your telephone by pressing the **Monitoring** key.

5.10 PARKING

5.10.1 INDIVIDUAL

You can park an ongoing call temporarily and then re-admit it on your own telephone provided, the telephone is not MNS represented.

To park

Press the **Line** key where you have the call in conversation.

To re-admit the call

- 1) Press the **Line** key where you have the call parked.
- 2) You now have speech connection with the original conversation partner.

To re-admit the call from any telephone

Note: Not applicable.

5.10.2

COMMON

If your telephone is MNS represented on other telephones, and you park an ongoing call, then the call is put on common hold. However, if the ongoing call is a conference member/leader or other access line (Line 1 or Line 2) is already put on common hold, then common hold is not allowed.

To put a Call on Common Hold:

1. Press the Line key where you have the call in conversation or Hold (F3) menu key.
2. Replace the handset.

To pick up a call put on common hold:

1. When the call is put on common hold, the MNS key on the represented extension starts to blink.
2. Press the blinking key to answer the call.

To re-admit a call put on common hold:

1. The call cannot be re-admitted if the call, that is put on common hold, is answered at the MNS represented extension. Otherwise, press the Line key where you have the call parked.
2. You have now speech connection with the original conversation partner.

5.11

REFER BACK

During inquiry you can switch between the connected party and the calls parked on Line 1 and Line 2.

To use

Press the **Inquiry** key, the **Line 1** or the **Line 2** key.

To end

- 1) Press the **Inquiry** key, the **Line 1** or the **Line 2** key.
- 2) Press the **Clear** key.

5.12

SUFFIX DIALING (DIALING DURING SPEECH)

When communicating with and controlling a voice mail system, or for example, retrieving information through your telephone about your bank account, you need to use Dual Tone Multi-Frequency (DTMF) signals, this is known as suffix dialing. The suffix dialing function is permanently active for all calls in speech.

All digits entered are automatically converted by the exchange into DTMF signals which are then transmitted along the connected lines.

5.13 TIMER

Note: Not applicable.

5.14 TRANSFER

You can transfer a call to another extension (in your exchange or private network), subscriber or the operator assistant. If you have more than one parked call it will be the last parked call that will be transferred.

5.14.1 TRANSFER AFTER ANSWER

- 1) Make an inquiry call (press the **Inquiry** key, the **Conference** or the **Transfer** key and wait for dial tone).
- 2) Dial the extension or external number and wait for answer.
- 3) Announce the call.
- 4) Press the **Transfer** key.

5.14.2 TRANSFER BEFORE ANSWER

- 1) Make an inquiry call (press the **Transfer** key or the **Inquiry** key and wait for dial tone).
- 2) Dial the extension or external number and wait for ring tone.
- 3) Press the **Transfer** key.

Note: If the wanted extension is busy or transfer to this extension is forbidden the transfer will not be performed.

6

CALL FORWARDING

6.1

DIVERSION

6.1.1

DIRECT DIVERSION

If you are unable to accept calls you can have them directly diverted to an individual or, if no such position exists, three predetermined common answering positions.

Depending on the type of calling party (internal, private network or external/public party) the calls are diverted to either the individual or common answering positions. This is set by the system administrator.

When your telephone is diverted you can still make calls from it as usual.

As a reminder that your telephone is diverted you will hear a special dial tone each time you lift the handset to make a call and the Diversion lamp indicates that your line is diverted.

See also Follow-me, which is a similar function.

6.1.1.1

To order from your own telephone

Using a procedure

- Lift the handset (or press a main line key).
- Dial *21#. Special dial tone and the diversion lamp turns ON.
- Replace the handset.

6.1.1.2

To cancel from your own telephone

Using the soft-key Diversion

- Press the soft-key **Diversion** (the diversion lamp turns OFF).

Using a procedure

- Lift the handset (special dial tone), or press a line key
- Dial #21#, (dial tone and the diversion lamp turns OFF).
- Replace the handset.

6.1.1.3

To order from the answering position

- Lift the handset (dial tone).
- Dial *21*own extension number*diversion position extension number# (special dial tone).
- Replace the handset.

6.1.1.4

To cancel from the answering position

- Lift the handset (dial tone).

- Dial#21*own extension number# (dial tone).
- Replace the handset.

6.1.1.5

Diversion to paging

Direct diversion to paging is also supported, but with separate procedures *218/#218.

6.1.2

DIVERSION ON NO ANSWER

If you are unable to accept calls, you can have them diverted to a predefined individual answering position.

When your telephone is diverted you can still make calls from it as usual.

Diversion on no answer is normally performed after 3 signals, that is, about 14 seconds. Different times are possible depending on whether or not a call has been answered before this call.

See also Personal Number, which is a similar function.

6.1.2.1

To order

Using procedure

- Lift the handset (dial tone).
- Dial *211# (special dial tone).
- Replace the handset.

6.1.2.2

To cancel

Using procedure

- Lift the handset (dial tone).
- Dial #211# (dial tone).
- Replace the handset.

6.1.3

DIVERSION ON BUSY

If you are unable to accept calls since you are already occupied with one or more calls, you can have the new call diverted to a predefined individual answering position.

When your telephone is diverted you can still make calls from it as usual.

See also Personal Number, which is a similar function (if busy option is used).

6.1.3.1

To order

Using procedure

- Lift the handset (dial tone).
- Dial *212# (special dial tone).
- Replace the handset.

6.1.3.2

To cancel

Using procedure

- Lift the handset (dial tone).
- Dial #212# (dial tone).
- Replace the handset.

6.2

INTERNAL FOLLOW-ME

All calls to your extension are diverted to an extension of your choice, within the private network. For example, when you are working in another room and want your calls to follow you to that answering position.

When your telephone has Follow-me activated you can still make calls from it as usual.

As a reminder that your telephone has Follow-me, you will hear a special dial tone each time you lift the handset to make a call, and the Follow-me lamp is lit.

6.2.1

ORDERING FOLLOW-ME FROM OWN PHONE

Follow-me key

This key is used for indication that Follow-me is activated.

Using a procedure

- 1) Lift the handset (dial tone).
- 2) Dial *21* *the extension number of the answering position* # (special dial tone and follow me lamp is turned on).
- 3) Replace the handset.

6.2.2

CANCELING FOLLOW-ME FROM YOUR OWN PHONE

Using the Follow-me key

Press the follow-me key (the follow-me lamp is turned off).

Using a procedure

- 1) Lift the handset (special dial tone).
- 2) Dial # 21 # (ordinary dial tone, follow-me lamp is turned off).
- 3) Replace the handset.

6.2.3

ORDERING FOLLOW-ME FROM ANOTHER PHONE

You can order follow-me of your own extension number from another telephone.

The first step is to allow that follow-me is permitted to be done from another telephone. Do the following from your own telephone:

- 1) Lift the handset (dial tone).
- 2) Dial *21* *own extension number* #.

- 3) Replace the handset.

The Follow-me key indicator is lit.

To order follow-me from another telephone:

- 1) Lift the handset (dial tone).
- 2) Dial **21* own extension number * the extension number of the new answering position#* (special dial tone).
- 3) Replace the handset.

6.2.4

CANCELING FOLLOW-ME FROM ANOTHER PHONE

- 1) Lift the handset (dial tone).
- 2) Dial *#21* own extension number#* (dial tone).
- 3) Replace the handset.

The indication of the active follow-me on your own phone disappears.

6.2.5

ORDERING FOLLOW-ME REMOTELY

With this feature you can order follow-me of any extension number from any telephone.

The prerequisite is that all the involved telephones have the right service profile.

To order remote programming of follow-me, do the following:

1. Lift the handset and wait for dial tone.
2. Dial **21*extension number to divert * extension number of the new answering position#*.
3. Wait for special dial tone.
4. Replace the handset.

6.2.6

CANCELING FOLLOW-ME REMOTELY

To cancel remote programming of follow-me from another telephone than the telephone with the diverted number:

1. Lift the handset and wait for dial tone.
2. Dial *#21*diverted extension number#*.
3. Replace the handset.

The indication of the active follow-me on the telephone with the diverted number disappears, if there is no additional diversion remaining.

6.3

EXTERNAL FOLLOW-ME

Calls to your telephone number can be forwarded to any external telephone number you want by using external follow-me.

When your telephone has external follow-me you can still make calls from it as usual.

As a reminder that your telephone has external follow-me a text message is shown in the display, a special dial tone each time you lift the handset to make a call and the follow-me lamp is lit.

6.3.1 ORDERING EXTERNAL FOLLOW-ME FROM YOUR PHONE

Follow-me key

This key is used for indication that Follow-me is activated.

Using a procedure

- 1) Lift the handset (dial tone).
- 2) Dial *22#.
- 3) Dial route access code and external number# (the special dial tone and the follow me lamp is turned on).
- 4) Replace the handset.

6.3.2 CANCELING EXTERNAL FOLLOW-ME FROM YOUR PHONE

Follow-me key

Press the follow-me key (the follow-me lamp is turned off).

Using a procedure

- 1) Lift the handset (dial tone).
- 2) Dial # 22 # (dial tone and the follow me lamp is turned off).
- 3) Replace the handset.

6.3.3 ORDERING EXTERNAL FOLLOW-ME REMOTELY

With this feature you can order external follow-me of any extension number from any telephone.

The prerequisite is that all the involved telephones have the right service profile.

To order programming of external follow-me for another extension, do the following:

1. Lift the handset and wait for a dial tone.
2. Dial *22* *extension number to divert* # *route access code and the external number* #
3. Replace the handset.

The Follow-me key is lit and the and the display shows the external follow-me text, on the telephone that has been diverted.

6.3.4 CANCELING EXTERNAL FOLLOW-ME REMOTELY

To cancel the remote programming of external follow-me for another extension, do the following:

1. Lift the handset and wait for a dial tone.
2. Dial #22* *diverted extension number* #.
3. Replace the handset.

6.4 MESSAGE DIVERSION (ABSENCE INFORMATION)

This feature activates or deactivates the message diversion service. For example, you can activate a message diversion telling the calling party that you are on lunch. The absence reason is either shown in the A-party's telephone display or received from the operator.

When your telephone has message diversion you can still make calls as usual.

As a reminder that your telephone has message diversion you will hear a special dial tone each time you lift the handset to make a call.

6.4.1 ORDERING FROM YOUR EXTENSION TELEPHONE

To order message diversion from your extension telephone, do the following:

- Lift the handset and await dial tone.
- Enter the following:
 - **23* reason for absence (one digit * estimated time/date of return (four digits)#, or*
 - **23* reason for absence (one digit)**
- Await verification tone and replace the handset.

6.4.2 CANCELING MESSAGE DIVERSION FROM YOUR EXTENSION TELEPHONE

Cancellation means that any waiting messages for your extension will be printed out.

- Lift the handset and await special dial tone.
- Enter the following:
 - *#23* terminal number (2-5 digits)#, or*
 - *#23#*
- Await verification tone and replace the handset.

6.5 PERSONAL NUMBER

It is recommended to use Mitel CMG Office Web to setup up personal number profiles. This section describes the handling of the personal number feature when dialing procedures from your own telephone.

6.5.1 GENERAL

Each personal number can have up to 5 profiles. You can activate or deactivate them by using the Personal Number key, or by dialing a procedure. The latter can be done:

- From your own telephone assigned to the Personal Number (PN).
- Mitel CMG Office Web.

No matter which method is used, the current active profile is shown in the display of your own telephone. If no profile is active, the display shows the normal idle state.

6.5.2

PROCEDURES

PN indicates the personal number of the extension with the facility available. In most cases the personal number is the same number as your directory number.

Please contact your system administrator in order to change the contents of the profile.

6.5.2.1

From Your Own Telephone

The recommended value of the function code is 10, but other values can be used.

Activation

Dial *10* Profile number#

To change the active profile the same procedure is used with the new profile number.

Deactivation

Dial #10#

7 MESSAGES

7.1 MANUAL MESSAGE WAITING (MMW)

If there is a message waiting, the corresponding lamp to the Message key will be on and you will hear a special dial tone after lifting the handset.

7.1.1 CALLING THE PARTY THAT REQUESTED MANUAL MESSAGE WAITING

Press the Message key that is on and a call is initiated to the number that requested message waiting. After answer you have to dial the procedure to cancel manual message waiting so the lamp is turned off.

7.1.2 CHECKING THE PARTY THAT REQUESTED MANUAL MESSAGE WAITING

When calling the party that requested manual message waiting, the number is shown in the display.

7.1.3 ORDERING MANUAL MESSAGE WAITING INDICATION

To order manual message waiting to another extension

- 1) Lift the handset (dial tone).
- 2) Dial *31* *extension number* #.
- 3) Replace the handset.

7.1.4 CANCELING MANUAL MESSAGE WAITING INDICATION

To cancel manual message waiting to another extension, do the following:

- 1) Lift the handset (dial tone).
- 2) Dial #31* *extension number* #.
- 3) Replace the handset.

To cancel manual message waiting to another extension, do the following:

- Lift the handset (dial tone).
- Dial # 31 #.
- Replace the handset.

8 GROUP FEATURES

8.1 CALL PICK-UP GROUP

8.1.1 OWN GROUP

If you are a member of a call pick-up group you can answer calls to any other member (extension) in the group:

- 1) Lift the handset (dial tone).
- 2) Dial *8# to answer the call.

8.1.2 ALTERNATIVE ANSWER GROUP

One call pick up group can serve as an alternative group for another call pick up group. You are only able to answer calls to the alternative group provided no calls exist to your own group:

- 1) Lift the handset (dial tone).
- 2) Dial *8# to answer the call.

8.2 GROUP DO NOT DISTURB

A number of extensions can be defined as a *do not disturb* group. A categorized extension can activate *do not disturb* for the whole group. The calls will be forwarded to an answering position defined for the whole group or the calling party receives a number unobtainable tone.

An extension with *group do not disturb* activated can still make outgoing calls as usual.

8.2.1 TO ORDER GROUP DO NOT DISTURB

A categorized extension can activate *group do not disturb* by dialing the following procedure:

- Lift the handset (dial tone)
- Dial *25*group number# (special dial tone)
- Replace the handset

8.2.2 TO CANCEL GROUP DO NOT DISTURB

A categorized extension can deactivate *group do not disturb* by dialing the following procedure:

- Lift the handset (dial tone)
- Dial #25*group number# (special dial tone)
- Replace the handset

8.2.3 BYPASS OF GROUP DO NOT DISTURB

A categorized extension or a PBX operator can bypass *group do not disturb* by dialing the following procedure:

- Lift the handset (dial tone)
- Dial *60*extension number#

The call is indicated on the telephone with the dialed extension number.

8.3 INTERNAL GROUP HUNTING

An internal group hunting number is a common directory number for a group of extensions. Calls to the group will be indicated at a free extension in the group.

8.3.1 ANSWERING A GROUP CALL

A group call is answered in the normal way.

8.3.2 LEAVING A GROUP TEMPORARILY

By making follow-me to your own extension number you can leave an internal group hunting group temporarily using a procedure:

- 1) Lift the handset (dial tone).
- 2) Dial *21* *own extension number*# (special dial tone and the follow-me lamp is turned on).
- 3) Replace the handset.

8.3.3 RE-ENTERING THE GROUP

To re-enter an internal group hunting group the follow-me to your own extension number has to be cancelled using a procedure:

- 1) Lift the handset (special dial tone).
- 2) Dial #21# (dial tone and the follow-me lamp is turned off).
- 3) Replace the handset.

9 OTHER FEATURES

9.1 ACCOUNT CODE

9.1.1 GENERAL

The feature account code provides two different functions:

- Charge a call to an account code instead of charging it to the calling extension's number.
- Prevent unauthorized telecommunication use by forcing the user to dial an account code before dialing an external number.

Extensions and the external numbers for Least Cost Routing (LCR) can be initiated with account code categories. With these two categories it is possible to decide if the user will have forced or optional account code dialing.

Forced

Means that the user must have dialed a valid account code before the destination number otherwise the call is rejected.

Optional

Means that it is not necessary with an account code for the call. The call is in this case always accepted.

The procedure for account code normally has to be dialed before the wanted number. It is also possible to tie an account code to an ongoing call, both incoming and outgoing. Any previous stored account code will then be overwritten.

9.1.2 PROCEDURE

9.1.2.1 *Pre-dialing of Account Code*

- 1) Lift the handset.
- 2) Dial the procedure for account code *61* *account code*#, where 61 is the standard function code for using account code. If provided, dial tone is received.
- 3) Continue with the external number. If the category check is negative (in case of forced account code dialing) the call is rejected.
- 4) After conversation replace the handset.

9.1.2.2 *Dialing of Account Code in Speech*

Note: Not applicable.

9.2 ALARM EXTENSION

An alarm telephone is assigned characteristics similar to an alarm center. A call to this extension obtains automatic intrusion if the extension is busy. Up to 7 callers can be connected to the alarm extension at the same time.

The IP telephone cannot be an alarm extension, but can call an alarm extension.

9.3 DATA PRIVACY

Note: Not applicable.

9.4 DIRECT IN-DIALING

Normally the exchange has a direct in-dialing possibility, which enables external subscribers to call you directly without needing to go through the PBX operator assistant.

9.5 EMERGENCY STATE

In the event of an emergency the PBX operator assistant can switch the exchange into emergency state. Only extensions with the appropriate category will be permitted to initiate calls in this state.

If you have not been assigned this category and try to make a call you will not receive any dial tone.

9.6 FREE SEATING

The free seating function is not applicable.

9.7 GENERAL DEACTIVATION

The following procedure is used to request general deactivation:

- 1) Lift the handset (dial tone).
- 2) Dial # 001 #.
- 3) Replace the handset.

The following initiated features are simultaneously cancelled by the feature general deactivation:

- Call back (all call back missions are cancelled).
- Follow-me/external follow-me.
- Manual Message Waiting/Message Diversion.
- Flexible night service.

9.8 HOT-LINE (NON-DIALED CONNECTION)

9.8.1 DIRECT HOT-LINE

An extension number can be defined as a direct hot-line. When the handset on the telephone is lifted or line-key is pressed, a call is automatically generated to a predefined extension position or external subscriber. The only call that can be placed from this type of line is the direct hot-line call.

9.8.2 DELAYED HOT-LINE

Note: Not applicable.

9.9 INDIVIDUAL DO NOT DISTURB (DND)

You can activate this feature when you want to avoid incoming calls to your telephone. The calling party receives a number unobtainable tone or a busy tone or will be forwarded to the diversion position if it is defined by the system administrator.

9.9.1 TO ORDER DO NOT DISTURB

- 1) Lift the handset (dial tone).
- 2) Dial *27#
- 3) Replace the handset.
- 4) A text in the display reminds you that DND is activated.

The telephone can still be used for outgoing calls as usual.

9.9.2 TO CANCEL DO NOT DISTURB

- 1) Lift the handset (special dial tone).
- 2) Dial #27#. Dial tone

9.10 LEAST COST ROUTING

9.10.1 GENERAL

The Least Cost Routing (LCR) function can be accessed by dialing the Least Cost Routing Access Code (LAC).

By using Least Cost Routing Access Code you will automatically be routed over the cheapest available route. You cannot choose the cheapest route yourself, this is automatically performed by LCR.

9.10.2 PROCEDURE

9.10.2.1 *Outgoing call Using LAC*

- 1) Lift the handset
- 2) Dial LAC. If provided, a dial tone is received.
- 3) Continue with the external number. If no free trunk is selected, a busy tone is received. On-hook queuing is possible by dialing the suffix digit for call-back to the busy route. If the selected route is marked as expensive, you will receive Expensive Route Warning Tone, which will make it possible for you to interrupt the further routing of the call.
- 4) Replace the handset when the call is completed.

9.11 MALICIOUS CALL TRACING (MCT)

This feature allows you, before the call is disconnected, to signal to the public switched telephone network (PSTN) that you have received a malicious call. If the calling subscriber clears the call, the external line can be held for a limited period of time, during which you can invoke the feature. This information is used by the PSTN to record information about the origin of the call (that is, print out calling party number, date, time and so on).

The system administrator must assign the MCT feature to a function key.

To order Malicious Call Tracing, press the MCT key:

- If the request is successful, the lamp (LED) is lit, a text message is shown in the display and an acknowledge tone is heard.
- If the request fails, the lamp (LED) associated to the key flashes rapidly, a text message is shown in the display and a reject tone is heard.

9.12 MULTIPLE TERMINAL SERVICE, TAKE OWN CALL ON ANOTHER TERMINAL

A call in two-party speech can be taken/moved onto another terminal belonging to the same user, by dialing a service code. If more than one terminal has a call in speech, no call will be picked.

If no call is picked, a further analysis is done to find if any other call can be picked (i.e. common bell, group call or universal night service).

To enable this function, do the following

- Dial *8# from the new terminal.

Note: Finland and Sweden, press *0#.

U.S. and Canada, press *59#.

9.13 NIGHT SERVICE

During night service, incoming external calls are transferred to any selected extension or group of extensions.

9.13.1 NIGHT SERVICE COMMON

All incoming calls are routed to one extension, and calls are answered in the normal way.

9.13.2 NIGHT SERVICE INDIVIDUAL

One or more of the external lines in the exchange are routed to the designated extension, and calls are answered in the normal way.

9.13.3 NIGHT SERVICE UNIVERSAL

All incoming calls are signaled on a universal signaling device, for example, a bell. In order to answer the call use the following procedure:

1. Lift the handset (dial tone).
2. Dial 8 to answer the call.

9.13.4 NIGHT SERVICE FLEXIBLE

Flexible night service permits you to select an external line and connect it directly to Line 1, 2 on your telephone. This is convenient when you are expecting important calls after office hours and you wish to get them without delay. Details about external line numbers can be obtained from the PBX operator. The following procedures are used:

To activate flexible night service

- 1) Lift the handset (dial tone).
- 2) Dial **84*route number*external line number#*.
- 3) Replace the handset.

To cancel flexible night service

- 1) Lift the handset (dial tone).
- 2) Dial *# 84 #*.
- 3) Replace the handset.

Note: This service is only valid for manual lines.

Note: If you forget to cancel flexible night service it will be cancelled automatically one hour after the exchange has been switched back into day service, provided that flexible night service has been operative for at least one hour.

9.14 RECORDED VOICE ANNOUNCEMENT (RVA)

9.14.1 LISTENING TO RECORDED VOICE ANNOUNCEMENTS

In certain call situations you may listen to recorded announcements.

9.14.2 RECORDING RECORDED VOICE ANNOUNCEMENTS

Note: Not applicable

9.15

PARALLEL RINGING

If an extension part of parallel ringing list tries to activate or deactivate any of the below features, then the procedure is performed on the main directory number but not on itself.

- Call diversion for non-generic extension
- Do not disturb
- External follow-me
- Follow-me
- General Cancellation
- Individual Repeated Distribution or Personal Number
- Message diversion

10 SETTINGS

10.1 PROGRAMMABLE FUNCTIONS IN THE TELEPHONE

After the telephone has been initiated you can change some settings, see 11 Web Server on page 50:

- Data assigned to programmable keys
- Ring character setting
- Hearing level

10.2 CHECKING THE FUNCTION KEYS

It is possible to check the use of the different function keys, see 11 Web Server on page 50.

10.3 PROGRAMMING A DIAL-BY-FUNCTION KEY

You can program numbers and procedures (*, #) that you often use, on the function keys. To use a number or a procedure you press the key.

To program a key, it is necessary to use the Web interface, see 11 Web Server on page 50.

10.4 PROGRAMMING THE TYPE OF RING SIGNAL ON A LINE OR MONITORING KEY

It is the system administrator who initiates a **Monitoring** key. From the Web interface you can change the type of ring signal for the key, see 11 Web Server on page 50.

10.5 PROGRAMMING THE CHARACTER OF THE RING SIGNAL

Ring signals are generated in the telephone loudspeaker by a tone ringer. The selection of one of ten different ring characters can be made using the Web interface, see 11 Web Server on page 50. Each ring character corresponds to a digit between 0 to 9.

10.6 SETTING THE HEARING LEVEL

It is possible to get an increased hearing level in the handset. This is set through the Web interface, see 11 Web Server on page 50.

10.7

CHECKING AND CHANGING NETWORK SETTINGS

The network settings can only be checked by the administrator. Changing of IP addresses, are handled by the maintenance personnel, see installation instructions for *DBC 420*.

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WEB SERVER

From the web browser in your PC, you can access your IP telephone to handle data in the telephone. The following can be done:

- Settings, programmable keys: Add, change and delete Dial-by-function key numbers. Change the type of ring signal for Monitoring keys.
- Settings, hearing level: select standard or increased.
- Settings, ring character: selectable between 0-9.

The web address of your telephone has to be entered in the address field in your web browser, see 11.1 Accessing the Web Interface with the IP Address on page 50.

11.1

ACCESSING THE WEB INTERFACE WITH THE IP ADDRESS

The DBC 420 02 is only intended for use with IP addresses from DHCP. You must get the IP address and your PIN from the administrator.

In the Web browser on your PC you will see:

Figure 6: Logging On to the Web Interface

If you fail to access this web page when using an earlier used web address, ask your administrator for the new web address. If your telephone has been disconnected from the LAN for a couple of days, this web address might have changed.

The description of the functions in the web interface, see 11.2 Using the Function in the Web Interface on page 51

11.2 USING THE FUNCTION IN THE WEB INTERFACE

Log on to the telephone by entering a the PIN in the **PIN or Password** text box. Use the same PIN as for logging on to the exchange. If you have no PIN for logging on to the exchange, use the default password **Welcome** (case sensitive) the first time you log on.

Click on the **Log on** button.

Click on the plus (+) signs to show the sub menus. Click on the desired function.

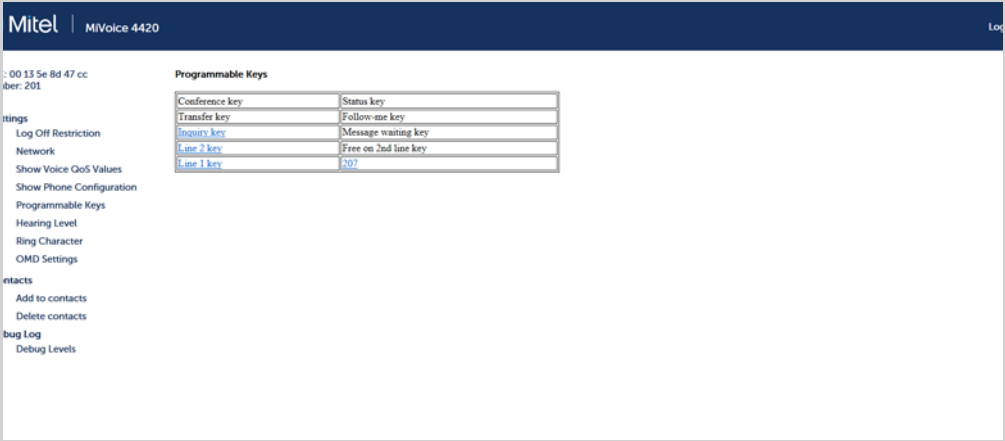


Figure 7: Programmable Keys Web Page

Click on the **Line 1 key** link to set ring options, the screen will show



Figure 8: Changing the Ring Signal Type

By clicking the **Change** button the user can choose between different ring signal types. The same can be applied on **Line 2**, **Inquiry** or possible **MNS** keys.

12 MISCELLANEOUS

12.1 TELEPHONE REGISTER (OPTIONAL)

On the tray underneath your telephone you can note useful telephone numbers.

12.2 LABELING

Label each function key according to their function when connected to MX-ONE. Lift the overlay slightly and remove the card.

The Designation Card Manager (DCM) is a software tool for creating and printing own designation cards. Use the Designation Card Manager tool to print the correct card.

DCM is available on the Internet. See the appropriate web page on:

<http://www.mitel.com>.

DCM is also included on the CD *Enterprise Telephone Toolbox*, which can be ordered through E-shop and Pocket SolveIT. Pre-cut designation sheets for the different types of telephones can also be ordered.

Put the card into position, and snap the overlay into position.

12.3 CLEANING

Wipe your telephone clean with a damp cloth. If needed use water and a mild soap solution.

12.4 WALL MOUNTING

The telephone can be wall mounted. This can be used, for instance, in conference rooms or public areas. See the installation instructions for *DBC 420*.

12.5 HEADSET FUNCTION

Note: Not applicable.

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LIST OF FEATURES AND PROCEDURES

Table 2

Features		Procedure (AS Standard)	Alternatives
ACCOUNT CODE		*61*account code#	Finland, Norway: *71*
AUTHORIZATION CODE			
Common code:			
-	increase CoS	*72*authorization code#	Germany, The Netherlands, Sweden: *75* U.S. and Canada: *6*
-	lock extension	*73*authorization code#	U.S. and Canada: *71*
-	unlock extension	#73*authorization code#	U.S. and Canada: #71*
Individual (Regional) Authorization Code, RAC:			
-	increase CoS	*75authorization code#	Germany, The Netherlands, Sweden: *72*
-	lock extension	*76*authorization code#	
-	unlock extension	#76*authorization code#	
-	change code	*74*previous*new code#	
AUTOMATIC CALL BACK			
-	to order:		
	- busy extension or no reply	Press 6	
	- busy external line	Press 6	
-	to cancel:		

	- busy extension or no reply	#37*extension number#	U.S. and Canada #6*extension number#
	- busy external line	#37*external number#	U.S. and Canada #6*extension Number#
	- all ordered call backs	#37#	U.S. and Canada #6#
BYPASS		*60*B-number#	
CALL PICK UP			
-	individual	Press 8 (suffix)	France, New Zealand: 4 Sweden: 6
-	group	*8#, or 8 (suffix)	Finland and Sweden *0# U.S. and Canada *59#
CALL WAITING			
-	to initiate Call waiting	Press 5	France, New Zealand: 6 Sweden: 4
COMMON SPEED DIALING		Dial the number, see List of speed dial numbers	
CONFERENCE		Press Conference key or Press 3 (suffix)	
CUSTOMER IDENTITY STORAGE		*77*customer identity#	
DIAL-BY-FUNCTION KEY			
-	to use	Lift handset and press dial-by-function key	
-	to program	to program numbers and procedures (*, #) that you often use on the function keys, use the Web interface	

DIVERSION (see also Follow Me and Personal Number)			
-	to activate direct diversion for own extension	*21#	Destination number must have been set by administrator.
-	to activate direct diversion for another extension (remotely)	*21*extension number to divert*#	
-	to terminate direct diversion for own extension	Press Diversion key, or #21#	
-	to terminate direct diversion for another extension (remotely)	#21*diverted extension number#	
-	to activate diversion on no answer for own extension	*211#	Destination number must have been set by administrator.
-	to activate diversion on no answer for another extension (remotely)	*211*extension number to divert#	
-	to terminate diversion on no answer for own extension	#211#	
-	to terminate diversion on no answer for another extension (remotely)	#211*diverted extension number#	
-	to activate diversion on busy for own extension	*212#	Destination number must have been set by administrator.
-	to activate diversion on busy for another extension (remotely)	*212*extension number to divert#	
-	to terminate diversion on busy for own extension	#212#	
-	to terminate diversion on busy for another extension (remotely)	#212*diverted extension number#	
DO NOT DISTURB			
-	group DND, to order	*25#	
-	group DND, to cancel	#25#	
-	individual DND, to order	*27#	
-	individual DND, to cancel	#27#	

EMERGENCY CALL		Dial emergency number	
EXTERNAL FOLLOW-ME			to public destinations
-	to order	*22#route access code and external number#	U.S. and Canada: *23#
-	to cancel	#22#	U.S. and Canada: #23#
-	to order from another extension	*22* extension number to divert # route access code and external number# North America: *23* extension number to divert # route access code and external number#	
-	to cancel from another extension	#22* diverted extension number # North America: #23* diverted extension number #	
FOLLOW-ME			
-	to order from own extension	*21*number of follow-me position#	UK: *2*
-	to cancel from own extension	#21#	UK: #2#
-	to cancel from answering position	#21*diverted extension number #	
-	to order new follow-me position	*21*extension number to divert * number of follow-me position #	
-	to order from another extension	*21*extension number to divert * number of follow-me position#	
-	to cancel from another extension	#21*diverted extension number#	

GENERAL DEACTIVATION		#001#	U.S. and Canada #0#
GROUP HUNTING and CASCADE RING GROUP			
-	to leave all groups temporarily	*21*own extension number#	
-	to re-enter all groups	#21#	
-	to leave (log out of) a specific group temporarily	*29*group number#	
-	to re-enter (login to) a specific group	#29*group number#	
INQUIRY			
-	to initiate	Inquiry	
-	to revert to original party	Line 1, Line 2 or Inquiry	
INTRUSION		Press Intrusion key (or 4, suffix) when receiving a busy message	France, New Zealand, Sweden: 8
LAST EXTERNAL NUMBER RE-DIAL		***	Finland, Sweden: **0
LEAST COST ROUTING		Dial the LAC	
MANUAL MESSAGE WAITING			
-	to order	*31*extension number#	U.S. and Canada: *56*extension#
-	to cancel	#31#	U.S. and Canada: #56#
MESSAGE DIVERSION			
-	to order	*23*reason for absence* or *23*reason*return date/time#	U.S. and Canada: *24*extension#
-	to cancel	#23#	U.S. and Canada: #24#

MESSAGE WAITING INDICATION			
-	to cancel	#91#	
MONITORING KEY (MNS KEY)			
-	to answer a call	press Monitoring key	
-	to make a call to the monitored extension	lift handset and press Monitoring key	
-	pick up parked call	press Monitoring key	
NIGHT SERVICE			
	Universal	8	
	Flexible		
-	to order	*84*route number* external line number#	U.S. and Canada: *8*
-	to cancel	#84#	U.S. and Canada: #8#
NUMBER PRESENTATION RESTRICTION (per call)		*42# B-number	
PARALLEL RINGING			
-	to prevent ringing on one phone	initiate Follow-me to your own extension number	
-	to restore on one phone	cancel Follow-me from the phone	
-	to restore for all phones in the parallel ringing list	cancel Follow-me from the main extension	
PARKING		Press Line key of ongoing call	
PARKING, COMMON			
-	to answer a call	press Monitoring key	

-	to make a call to the monitored extension	lift handset and press Monitoring key	
-	pick up call on common hold	press Monitoring key	
PERSONAL NUMBER (Call List)			
-	to order/change	Press the Call List key, or *10*list number#	
-	to cancel (return to default list)	Press the Call List key, or #10#	
REBOOT the phone		Press the keys C, mute and # simultaneously for at least one second	
REFER BACK			
-	to initiate	press the Inquiry key and the Line 1 or Line 2 key	
-	to end	press the Inquiry key and the Line 1 or Line 2 key, then press the Clear key	
SOFTWARE VERSION		Use the Web interface	
TAKE CALL ON ANOTHER MULTIPLE TERMINAL, ANSWER TO COMMON BELL, GROUP CALL PICKUP, and Answer on NIGHT BELL (* and # in the service code can be excluded)			
-	to order	8, or *8#	
TRANSFER		Press Transfer key	