DECT 64-S96+B11 GAP
MMI Specification
Document Version 1.0

FCC Interference Information

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference; and (2) This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

• Reorient or relocate the receiving antenna (that is, the antenna for radio or television that is "receiving" the interference.

• Reorient or relocate and increase the separation between the telecommunications equipment and receiving antenna.

• Connect the telecommunications equipment into an outlet on a circuit different from that to which the receiving antenna is connected.

FCC RF Radiation Exposure Statement

The installation of the base unit should allow at least 20 centimeter between the base and persons in compliance with FCC RF exposure guidelines. For body worn operation, the portable part (handset) has been tested and meets FCC RF exposure guidelines.

This device must not be co-located or operating in conjunction with any other antenna or transmitter. The changes or modifications not expressly approved by the party responsible for compliance could void user's authority to operate the equipment.

Congratulations on your selection of this quality product by **XACT Communication**. With proper care and adherence to the set-up and user instructions in this Owner's Manual, this unit will provide you with years of trouble-free service. **XACT** is committed to providing quality products that fit your needs. We would like to have any comments or suggestions you might have on this product. You may mail your comments to:

> **XACT Communication, LLC**
> **105 Madison Avenue**
> **New York, NY 10016**
>
> **info@xactcommunication.com**

WHAT'S IN THE BOX?

> User manual
> Edge 1.4 handset
> Edge 1.4 base station
> Line cord
> Power adapter for base station
> Battery door
> 2 x AAA rechargeable batteries
> Warranty information

In the event that any item is missing or if you find any mismatch or damage, promptly contact your retailer.

Revision History

Revision document	Author	Date	Comments
DECT 10 Version 1.0	Yamada	17 Jan. 05	Initial document for DECT 10
Version 1.1	Yamada	28 Jan. 05	Add two redial digits limit Change the LCD dots to 5 X 8 from 5 X 7 Add DECT 24 Add KPN operation detail Add DECT 15 option for handset VMWI handling Change back the arrow icon to be LEFT and RIGHT
Version 1.2	Yamada	01 Feb. 05	Change the CID display and add the EEPROM setting for display word. Add the VMWI indication option on the base LED. Change to user programmable for two direct access button
Version 1.3	Yamada	02 Feb. 05	Modify the operation for VMWI Add the month and date setting on the menu Short press "R" key to indicate DD / MM for 3 seconds.
Version 1.4	Yamada	02 Mar. 05	Change the H/S ringer melody to 10 from 5. Change the H/S ringer volume to 5 from 3. 4 Poly tone Ringer for handset. Add EEPROM setting option for Power ON/OFF function enable disable. Add RPAS enable/disable menu inside base setting menu. Add more for default setting Add Handfree mode speaker volume control.
Version 1.5	Yamada	11 Mar. 05	Change the text input character table and changing the case method.
Version 1.6	Yamada	03 May 2005	Add the Date setting menu operation. Add more explanation for Re-dial size limit Add frequency changing option for Latin American
Version 1.7	Yamada	17 May 2005	Change the two Hot key operation
Version 1.8	Yamada	14 July 2005	Change the phonebook size (20 digits -> 24 digits) Change the VMWI icon and TAM icon. Change the alarm icon turn off timing. Change the flashing rate for base VMWI LED indication. (DECT 20 base option) Add the option for un-read SMS message indication on the base unit. (DECT20 base option)
Version 1.0 for DECT 64	Yamada	04 May 2006	Change to DECT 64 MMI document

Contents

1   Features of SunCorp GAP DECT

1.1   Purpose of this document

The purpose of this document is to describe the specifications and the MMI of the product. It includes information about :
- Hardware and software features
- User interface description
- User settings

1.2   General features

General features
Phonebook of 50 entries
Search by name
20 last numbers redial
Different melody for internal and external calls
Automatic answering when taking the handset from the base
Automatic phone off when placing the handset on cradle
Mute key
Pre-dialling
Dialling mode changing during conversation
User friendly menu
Display length of conversation
Sixteen languages
PIN code for set-up
Page function
Select earpiece volume (Total 5 step)
Select ringer volume (Total 5 steps)
10 different melodies for handset
4 poly tone ringer for handset
5 different melody for base
Out of range tone
Battery warning tone
Customisable name of each handset

5 Portable Parts per base
4 Fixed Parts per handset
Clock on the handset
Alarm clock on the handset
3-Way conference call
***Caller ID Type I & II
*CLIP type I & II FSK (ETSI) & DTMF (KPN)

*Only if the function is supported by the network and type II is option
** Only if the function is supported by the network

* Bellcore CLIP
Display caller name*
List of last 40 calls
Time stamped calls
Redial last outgoing number
Display caller number during conversation
Two maximum digits limit for last number redial
The handset has compatibility for DECT 65 (Auto detect)

Intercom
Free intercom between handsets
Transfer a call to another handset

Option functions (Set by EEPROM)
Two direct access keys
Prefix dialling number

Power ON/OFF function
Frequency option for DECT 6.0 and Euro DECT

Hardware option
Backlight LCD
Backlight key board
LED for Talk and incoming ring
Line reverse detection for KPN** (Option)

**VMWI indication

1.3 Handset description

1.3.1 Handset keypad

Some keys have more than one usage depending on the MMI state (standby, in call, menu mode). The table hereafter gives all the possible actions for each key. In the following chapters, the reference for one key will be indicated with the main action of the key. Sometimes the second (or third) meaning will be indicated as follows: KEY_USE1/KEY_USE2.

| Key name | Standby mode | Incoming call | Talk mode | | Menu mode | |
			From incoming call	Outgoing call		Phonebook mode
KEY_MENU/OK *MENU*	Enter menu				Confirm	Confirm
KEY_LNR *Redial/Pause*	Enter Redial list		Pause	Redial (first key in call) Pause (after first key)		Pause
KEY_UP/CLIP	Enter CLIP list	Ringer volume up	Receiver Volume Up	Receiver Volume Up	Choose	Choose
KEY_DOWN/CLIP	Enter CLIP list	Ringer volume down	Receiver Volume Down	Receiver Volume Down	Choose	Choose
KEY_MEM/EXIT	Enter Phonebook		Enter Phonebook		Exit	Exit
KEY_CLEAR *X*			Toggle Mute	Toggle Mute	Clear	Clear
KEY_HOOK	Go in TALK mode	Go in TALK mode	Standby mode	Standby mode		
KEY_INT *Int*	Intercom		Transfer the call	Transfer the call		
KEY_R/POWER *R*	Power off (hold) Change to DD / MM display for 3 seconds (Short press)		Flash	Flash		
KEY_0 *0*	Pre-dial 0		Dial 0	Dial 0		0
KEY_1 *1*	Pre-dial 1 (DDK1:Long)		Dial 1	Dial 1		1
KEY_2 *2*	Pre-dial 2 (DDK2:Long)		Dial 2	Dial 2		2
KEY_3 *3*	Pre-dial 3		Dial 3	Dial 3		3
KEY_4 *4*	Pre-dial 4		Dial 4	Dial 4		4

KEY_5 **5**	Pre-dial 5		Dial 5	Dial 5		5
KEY_6 **6**	Pre-dial 6		Dial 6	Dial 6		6
KEY_7 **7**	Pre-dial 7		Dial 7	Dial 7		7
KEY_8 **8**	Pre-dial 8		Dial 8	Dial 8		8
KEY_9 **9**	Pre-dial 9		Dial 9	Dial 9		9
KEY_STAR *	Pre-dial *		Dial * Go into DTMF mode from pulse	Dial * Go into DTMF mode from pulse		*
KEY_HASH/**LOCK** #	Pre-dial # Toggle key lock (Hold)					#

Short press is less than 1 second
Long press is more than 1.5 second
Hold is press and hold more than 3 seconds

1.3.2 LCD display

The LCD display is composed of 12 characters dots matrix form (8 X 5 matrix), 4 characters 7 segments and 18 icons. (Icon drawings are just reference only. Plesae refere to the LCD specification)
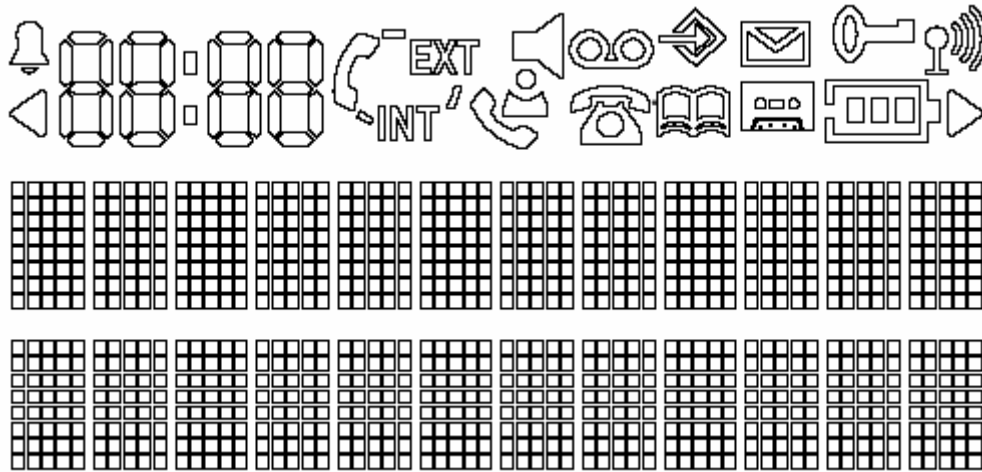
The definition of the icons is as follows:
(Icons are just reference only)

Icon	NAME	Definition
	HOOK_IND	Off hook indicator
EXT	*EXT*	External call engaged
INT	*INT*	Internal call engaged
	NEW_CLIP_IND	Caller identification available /new numbers in calls list
	CLIP_ANSWERED	Indicate answered call
	CLIP_UNANSWERED	Indicate unanswered call
	PHONEBOOK_IND	Phonebook indicator
	MENU_IND	Menu indicator
	BATTERY	3 levels battery indicator 1 segment: weak, 2 segments: medium, 3 segments: full The segments scroll during battery recharging and stop scrolling when battery is full
	LOCK_IND	Handset keypad locked
	ANTENNA	Signal strength indicator. The icon is steady when handset is locked to its base The icon flashes when the handset is unlocked or not subscribed to any base
	LEFT_ARROW	Indicates that displayed number or message is longer than the screen (12 digits)
	RIGHT_ARROW	Indicates that displayed number or message is longer than the screen (12 digits)
	TAM_MSG	VMWI indication
	NEW_SMS_IND	New SMS message indication
	VMWI_IND	This is for DECT 65

📢	*HAND_FREE*	Hand free indicator. This is for DECT 10-SP
🔔	*ALARM_SET*	Alarm set indicator

1.3.3 Standby display

In standby mode, the display shows the handset name (Maximum 10 characters) and the handset number (Last 1 digit). Also, the current time on the Time display (24 hours indication)

1.3.4 LED

- Talk LED

Action	LED state
Standby mode	OFF
Subscription mode	Flash
In call	Flash
Incoming call	Flash synchronized with PSTN ring pattern.
New CID	OFF
New SMS	Flash (Not for DECT 6.0)
Voice mail notification	Flash

- Key backlight LED (Hardware Option)

Action	LED state
Standby mode (No key press)	OFF
Press any key	ON for 8 seconds after press last key (Setting by EEPROM)
During key lock	OFF
Incoming call	Flash (0.5s ON/OFF)
External call	ON
External call on hold	Flash (0.5s ON/OFF)

- LCD backlight LED and Key backlight LED (Hardware Option)

Action	LED state
Standby mode (No key press)	OFF
Press any key	ON for 8 seconds after press last key (Setting by EEPROM)
During key lock	OFF
Incoming call	ON

1.3.5 Tones

Nr	Name
1	Ring 1
2	Ring 2
3	Ring 3
4	Ring 4
5	Ring 5
6	Ring 6
7	Ring 7
8	Ring 8
9	Ring 9

10	*Ring 10*
6	*TONE_CONFIRM*
7	
8	
9	*TONE_LOW_BATT*
10	*TONE_FREE*
11	*TONE_CALL_WAITING*
12	*TONE_BUSY*
13	*TONE_ERROR*
14	*TONE_IN_RANGE*
15	*TONE_WARNING*
16	*TONE_OFF_HOOK_WARNING*
17	*TONE_RING_BACK*
18	*TONE_ALARM_CLOCK*

1.4 Base description

1.4.1 Page Key

Key action	MMI action
Short press (<5 s)	Send a page to handsets
Long Press (>=5s)	Enters subscription mode (in use LED will flash)

1.4.2 LED

- Power/In use LED

Action	LED state
Standby mode	ON
Subscription mode	Flash
In call	Flash
Incoming call	Flash synchronized with PSTN ring pattern.
New SMS message	Flash (Not for DECT 6.0)

Add the EEPROM setting (FP) to enable the VMWI indication on the base unit.

Especially for Australia, it is better to have VMWI on the base unit. It should enable or disable this function by EEPROM setting.
(If there is not only one Voice mail server, this function shall be disabled by EEPROM setting)

Operation:

- Receive the CID data (Parameter type 0Bh + Data FFh), and then activate the base IN-USE LED to be flash.

- The Flashing rate is 0.2S - 0.25S ON/OFF

- This Flashing is lower priority, so, any other operation to turn ON the IN-USE LED, those operation have priority.

- The Flashing is keeping until received the CID data (Parameter type 0Bh + Data 00h) regardless the unit goes to oh-hook or off-hook.

- The VMWI signal may be contained Type 2 CID data. So, during Talk mode and received the (Parameter type 0Bh + Data FFh), the information will be kept and once the unit goes to standby, then the IN-USE LED starts to flash.

1.4.3 Tones

The three base melodies are shown in the following table

Nr	Name
1	*Ring 1*
2	*Ring 2*
3	*Ring 3*
4	*Ring 4*
5	*Ring 5*
6	*TONE_CONFIRM*

2 Main User interface

2.1 Power up

Plug the power supply into the base. The in use LED will be turned on and *TONE_CONFIRM*.

Insert batteries in the handset. If battery level is enough (see Start up with low batteries chapter), the handset will start.
The display will show "Base 1" and antenna flashing, until it locks onto its subscribed base. If the handset finds its base in the first 10 seconds, no beeps are played (see Range indication chapter).
Then the display shows the standby display.

2.2 Standby mode

In standby mode, the display shows the handset name and the handset number.

The *ANTENNA* icon is steady. The *BATTERY* icon indicates the charge level.

Handset:

Events	Handset mode
Press **KEY_HOOK**	Enter TALK mode
Press **KEY_INT**	Enter intercom mode
Press **KEY_MENU**	Enter MENU mode
Press **KEY_MEM**	Enter phonebook mode
Press **KEY_HASH /LOCK** (hold 3 second)	Enter KEY LOCK mode
Press **KEY_LNR/PAUSE**	Enter redial list mode
Press **KEY_UP/CLIP or KEY_DOWN/CLIP**	Enter CLIP mode
Press **KEY_R/POWER** (hold 3 second)	Enter power down mode
Press **1,2,3……0,*,#**	Pre-dialling
Incoming call signal	Incoming call mode
Another handset TALK	Busy mode
Battery is low	Battery low icon
Battery is too low	Power down mode
On charging	Charging mode

Long press for **1 or 2**	Access direct pre-programmed number

Base:

Events	Base mode
Press **PAGE KEY**	Enter PAGE mode
Incoming call signal	Incoming call mode

2.3   TALK mode

Refer to External outgoing call

2.4   Intercom mode

Refer to intercom

2.5   Incoming call mode

Refer to incoming call

2.6   MENU mode

Refer to MENU settings

2.7   Phonebook mode

Refer to phonebook

2.8   SMS

Refer to SMS MMI document

2.9   Voice Mail

An indication is given to user when voicemail is waiting, called the VMWI (Voice Mail Waiting

Indication)

VMWI notification/de-notification can be received from multiple voicemail server. Matching of VMWI notification/de-notification will be done using number field.

On receipt of a VMWI "ON" message
- The VMWI notification will be stored in to the CID list.
- Each entry will show the CID of the voice mail server number, including box number if provided.
- The name of the voice mail server, as sent in the "Name" field will also be stored in CID list along with the Date/Time of the call. The Name field can receive up to 50 characters, but the display will be truncated to 12 characters.
- Note that no additional VMWI will be added to the list, if the server number is already existing on the CID list, but in this case the date and time shall be updated on the existing entry on the CID list.
- The icon will be flash.
- Note that the CID list operate as a FIFO buffer. If the CID list is full, on receipt of a new notification, it will replace the **oldest non-VMWI** item in the CID list. (If oldest one is VMWI item, it shall not be erased)
- To access the voicemail server, the user can press **KEY_TALK** whilst the VMWI is displayed in the CID list.

On receipt of a VMWI "OFF" message
- If the -de-notification matches and item already on the CID list, then the notification will be removed from the list.

- If the item does not exist on the list, then the de-notification which has number will be ignored. However, if the 📞 icon is flashing and received de-notification does not have number, and there is no notification on the list, the 📞 icon will be removed.
- When remove the notification and after remove the notification, if no other notifications are remain in the list, the 📞 icon will be removed.
- When receive the VMWI notification without server number, the 📞 icon shall start to flash. However, the notification shall not be stored to the call list.
- When receive the VMWI de-notification without server number, the 📞 icon will be removed if no notifications are in the list.
- Any kind of de-notification shall not be stored to call list.
- The user can manually turn off the display of 📞 icon, by a long press of "5", whilst viewing CID list. (It will effect to other handset and base also delete all the notification on the list)
- The user can manually remove VMWI notification from the CID list using delete function. When removed the notification and the notification was last one, the 📞 icon will be removed. (It will not effect to other handset and base)

Note:
- The VMWI data "0Bh + FFh or 00h" shall be received regardless Data link message such as "80h or 82h".

2.10 Redial list mode
Refer to redial features

2.11 CLIP mode
Refer to Caller ID (CLIP) feature

2.12 Charging mode
Refer to Charging conditions

2.13 Busy mode
When one Handset is TALK, another handset's "EXT" icon, and *TONE_BUSY* in earpiece if press **KEY_HOOK**

2.14 Power down
Make a long press on **KEY_R/POWER**, and the handset power down.
Press and hold **KEY_R/POWER** for 5 seconds to wake it up. When the handset wakes up, the clock time data shall be transferred from base.
This function can be enable or disabled by EEPROM setting

3   Call User interface

3.1   Incoming call

The Phone should not ring when receiving a burst of notification. The network will send RPAS and caller ID in short period of time (at 4 seconds interval)

Display

The display shows "Call" on the 1st line and *EXT* icon blinks (0.5 s ON/OFF), if caller ID information is available (see 3.5), the caller name and number is displayed. The caller name is on the 1st line and number is on the 2nd line. (If the name is not available, only number is displayed on the 2nd line.)
If the received number is match with Phonebook entry, the entry name will be displayed on the 1st line instead of CID name data.
Both the Talk indication LED and key backlight shall be flashed during ringing. (0.25 s ON/OFF)
And both key backlight and LCD backlight shall be turned on.

Handset and base ringer melody and level as MENU setting.

Note 2: It is possible to change ring volume during the incoming alert by using **KEY_UP/CLIP** and **KEY_DOWN/CLIP** keys.
The ring volume will be displayed as "Volume n" (1<=n<=3) or "Volume OFF" during 8 s unless **KEY_HOOK** is pressed.

Incoming alert phase:

The incoming call phase begins with the first ring (ALERT_ON) signal of the handset and stops:
- If the user take the call (see operation)
- If the call is not answered and the caller release its call or another parallel phone answers. EXT icon and LEDs will stop flashing after FTXX_LINE_EXPIRY.

The Base ring alert is synchronized with the PSTN ring ON/OFF pattern.

RPAS disable:

If the first ring period is less than the RPAS length value which is define by EEPROM, the unit shall not emit the ring alert sound.
It is possible to be enabled by base setting menu. And the default setting shall be defined by EEPROM setting.

3.1.1   To answer the call:
- Press **KEY_HOOK**.
- Simply lift the handset from the cradle.

HOOK_IND icon will be displayed.
Note 1: After it goes to talk mode automatically, **KEY_HOOK** will be disabled about 3 seconds to prevent unwanted hang up.
Note 2: Once handset TALK on, another handset's display "EXT" icon and can not TALK & *TONE_BUSY* in earpiece if press **KEY_HOOK**

3.2   External outgoing call

Normal dialling :
- Press **KEY_HOOK**
- Enter the called number

Pre-dialling:

Pre-dialling allows you to enter and modify a number before dialling.
- Dial your called number. Up to 32 digits (included pause, *,#)are allowed. If the number exceeds 12 digits, then move to 2nd line. If more than 24 digits, the last 24 digits are displayed and *LEFT_ARROW* is ON, Press **KEY_CLEAR** key to delete last digit.
- Press **KEY_HOOK**, the digits are dialled, digit(s)

3.2.1 Dialling PAUSE

Press **KEY_LNR** (after first key) to make a pause, which is displayed as a "P".
The time is adjustable by FP EEPROM settings

3.2.2 Flash key

During a call, press shortly **KEY_R** to perform a Flash break and displayed as a "R".
The flash time is adjustable by FP EEPROM settings

3.2.3 DTMF dialling

DTMF tone duration (pause before, tone length, pause after, high & low group level) is adjustable by FP EEPROM settings

3.2.4 Pulse dialling

Pulse timing (make, break, pause after) is adjustable by FP EEPROM settings
Pulse dialling mode can be disabled by EEPROM settings.
(If disabled by setting, the dialling setting menu shall not be on the handset setting menu)

3.2.5 Temporary DTMF dialling

During a call or pre-dialling, when the selected dial mode is pulse and you want to dial DTMF codes,
During talk, press **KEY_STAR/LOCK** to switch into DTMF dialling, only during this call.
During pre-dialling or number storage, long press **KEY_STAR/LOCK**   is used to program the digits after the KEY_STAR going temporarily to DTMF dialling. This will be displayed "d".

3.2.6 Dial tone detection

During an external outgoing call, the dial tone detection is activated. When detected the digits which have been dialled on the handset (pre-dialled or post dialled) are sent to the line.
If the dial tone is not detected, a time out expires and the digits are sent.
The time out is adjustable by FP EEPROM settings
No dial tone detection time out: selected by EEPROM data.
With dial tone detection time out: selected by EEPROM data.

3.2.7 Call timer display

After going off hook, the display is blank during 15 s unless you press a key. The communication duration is displayed after 15s after the last pressed key on the 2nd line.
If you press a key (0 - 9) during the conversation, the communication duration is not reset to zero and keep count up on the 2nd line. At the end of each call, the duration of communication is displayed for 5 seconds on the 2nd line.
The last 12 digits of dialled number is keeping display on the 1st line during the call.

3.2.8 Mute

It is possible to mute the microphone during a conversation.
Press **KEY_CLEAR/KEY_MUTE** during the conversation, the microphone is then deactivated, the external correspondent is put on hold; you can talk freely without being heard by the calling party.
"MUTE" is displayed on the 1st line.
No digit key or **KEY_INT** can be used during mute.
Press **KEY_CLEAR/KEY_MUTE** again to return to normal mode. The 1st line then return to display last 12 digits of dialled number.
The Phonebook can be reviewed, but it cannot be used for dialling.
Press **KEY_CLEAR/KEY_MUTE** again to return to normal mode.

3.2.9 Changing Earpiece Volume during Call

It is possible to change earpiece volume during a call using **KEY_UP/CLIP** and **KEY_DOWN/CLIP.**

The earpiece volume will be displayed on the 1st line as "Ear Vol n" (1<=n<=5) during 8 s unless a key digit (**KEY_0** to **9** + **KEY_HASH** + **KEY_STAR**) is pressed.

3.3 Direct access memory

The product has three locations of direct access memory dial number. The number can be re-programmed by end user using handset menu (Hot keys). The maximum digits for each location are 16 digits and there is no name for this direct access dial number.
The following data shall be able to store to two direct access keys.

> 0 - 9, * , # , R , Pause
>
> # If insert the "R", it should have 1.5 seconds pause after the "R".
> EX: If store the "1234R78" to direct access keys. The dial shall be as follow
>
> "1" + "2" + "3" + "4" + "Recall" + "1.5 second pause" + "7" + "8"

3.3.1   How to access the direct memory dial number during idle

User press and hold the **KEY_1** or **KEY_2** for more than 1.5 second (Long press), then the unit display the pre-programmed number on the LCD. **KEY_1** for location number 1 and **KEY_2** for location number 2. Then take the line and start to dial automatically.

3.3.2   During OFF HOOK

When the unit is on OFF HOOK mode, it is allowed to access direct access memory number anytime when long press for **KEY_1** or **KEY_2**.

3.3.3   Direct access dial data

The direct access keys dial data should not be stored to the Redial buffer. If use direct access keys after dial some digits, only the digits before direct access keys dial will be stored to the redial buffer.

3.4 Redial feature

3.4.1   Limit for number of redial digits

There are two EEPROM setting data to define the maximum redial digit. Those two data must be lower than 32 (20h). If more than 32, the reading data will be replaced by 32.

3.4.1.1   Selection for Redial data size
- The unit shall compare the two redial size data. If the data are same, there will be no redial size selection menu.
- If the data are different, there will be Redial size selection menu. Then the user can select the redial size by selecting the value. (Redial size selection menu --> see Menu setting)
- On the menu, the size data shall be come from EEPROM setting data.

3.4.1.2   Relation between redial list and redial size limit
- Redial list can keep up to 32 digits for each entries.
- When select the dialled number from the redial list and the number of digits is higher than selected limit, the unit display only the digits up to size limit.
- When press **KEY_TALK** to start dialling, the unit dial out only up to limit. The rest of digit will not be dial out.

3.4.2   Redial list

Up to **20** last redial numbers (32 digits) are stored in the redial list (in PP EEPROM).
Outgoing calls to SMS service centre will not be stored in the call list.

The last calls appear with their name if they are stored in the phonebook.

To retrieve the entries:
Press **KEY_LNR** If the list is already empty, then "empty" is displayed on the 1st line.

- When view the redial list, the 1st line to display most update data and 2nd line to display next list.
- Press **KEY_DOWN/CLIP** to move the 2nd line data to 1st line and 2nd line to display next data. Press KEY_UP to move the 1st line data to 2nd line and 1st line to display most old redial data.
- There is arrow icon on the left side of the 1st line to indicate that
- Scroll through the calls with the up **KEY_UP/CLIP** and down **KEY_DOWN/CLIP** arrows. The phonebook name is displayed if it exists. Otherwise it displays the first 11 digits of the number. If the digits are more 11, the first 11 digits of number are displayed with ▶ icon. Press **KEY_OK** to check the remaining digits with ◀ icon.

- Press **KEY_OK** to toggle between name and number if the number is matched with phonebook entry. (This is only for 1st line data)
- Press **KEY_MEM/EXIT** return to standby mode

To dial out number just simple press **KEY_HOOK**.

[Display example]
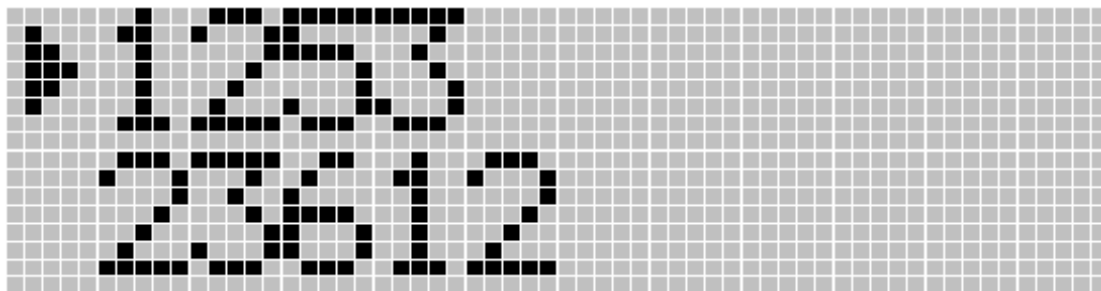
(Arrow icon is always on the 1st line left side)

3.4.3 Dial out redial after OFF HOOK

To recall the last redial entry, just take the line by **KEY_HOOK** and press **KEY_LNR** to dial.

3.4.4 Delete a redial buffer :

- Press **KEY_CLEAR** and "Delete ?" appears.
- Press KEY_OK to make redial number deleted for 1st line data, or press **KEY_MEM/EXIT** to cancel the delete operation.

To return to the previous menu, press **KEY_MEM/EXIT**

3.4.5 Delete all redial buffer :

- Long press **KEY_CLEAR** and "Delete All ?" appears.
- You can either press **KEY_OK** again and all redial are deleted, or press **KEY_MEM/EXIT** to cancel the delete all operation.

To return to the previous menu, press **KEY_MEM/EXIT**

3.4.6 Store a Redial list into PHONEBOOK

- Press **KEY_OK** during display the redial number which you wish to store to the phonebook. The display show "Add ?".
- After appearing the "Add ?" And press **KEY_OK** to confirm. The display show "Name ?".
- Enter the name.
- Press **KEY_OK** after enter the name.
- Press **KEY_OK** after modify the number.
- Select the melody of your choice (1 to 5) and validate
- Press **KEY_OK** to confirm.

Remark:
- If the total digit of Re-dial data inside the re-dial buffer is more than Re-dial size limit, it will only be able to transfer the digits up to Re-dial size limit.
- If the re-dial data size is more than Phonebook size limit, it will only be able to transfer the digits up to Phonebook limit.

3.5 Internal call transfer

When you wish to transfer an external call to another extension:

- During a call, press **KEY_INT**
- Select the number of the internal correspondent that you wish to call; the external caller is put on hold.
- When the internal correspondent picks up, press **KEY_HOOK** to hang up and transfer the call.

If the internal correspondent does not pick-up, press **KEY_INT** again to reconnect to the external caller on line.

3.6 Conference call between two handset and external caller

When you wish to talk an external call and other handset:
- During a call, press **KEY_INT**
- Select the number of the internal correspondent that you wish to call; the external caller is put on hold.
- When the internal correspondent picks up, you can talk with internal correspondent first with external call on hold.
- Press **KEY_#** to go to Conference call.
- When one of handset press **KEY_HOOK** or press **KEY_INT**. Then the conference call is finished, but other handset still talk with external caller.

If the internal correspondent does not pick-up, press **KEY_INT** again to reconnect to the external caller on line.

3.7 Caller ID (CLIP) features

3.7.1 General features

The phone supports CLIP DTMF and FSK type I and II. See 10.1 for more details.

3.7.2 Caller ID display

Note: Caller identification is only available if you have subscribed to this service with your network operator.

During the incoming alert:
 The CLIP information is displayed if they are provided.
Order of display:

- Phonebook name is on the 1st line and calling number is on the 2nd line if the number matches with the CLIP calling number
- CLIP calling name is on the 1st line and calling number is on the 2nd line if the name data is transmitted. However, if the number is match with one of phonebook memorized number, it shall use phonebook memorized name.
- CLIP calling number
- Number matching method is as follows.
    - If the one of number which CLIP or phonebook is less than 5 digits, it will not compare. (If the one of phonebook number is 1234, this number will not use for number matching)
    - If the CLID received 10 digits and phonebook number is 8 digits, CLID last 8 digits will use for the matching with that phonebook number. And if the CLID is 8 digits and phonebook number is 10 digits, Phonebook number last 8 digits will use for the matching with that CLID number.

The following special network messages are managed and displayed at the place of calling number:

Message	CLIP type	Meanings
WITHHELD	FSK type I & II	The caller hides its identity
UNAVAILABLE	FSK type I & II	Network failure, the calling number can't be transmitted

Special caller texts display format: (Display on the 1st line)

Display	CLIP TYPE	Caller texts from network
Private	FSK type I & II	PRIVATE
Unavailable	FSK type I & II	UNAVAILABLE
International	FSK type I & II	INTERNATIONAL
Operator	FSK type I & II	OPERATOR
Payphone	FSK type I & II	PAYPHONE
Ringback	FSK type I & II	RINGBACK
Withheld	FSK type I & II	WITHHELD

Note:
If text data area has above information, the display shall be according to the text data, than "Parameter name"

The following parameter shall be detected:

Parameter type	Parameter	Parameter name	Display
01h		Date and Time	Date and Time
02h		Calling Line Identify	Number
04h	4Fh	UNAVAILABLE	Unavailable
04h	50h	WITHHELD	Withheld
06h	4Ch	INTERNATIONAL	International
07H		Calling Party Name	Calling Party Name
0Bh	00h	Deactivation VMWI	
0Bh	FFh	Activation VMWI	
11h	02h	RINGBACK	Ringback
16h	0Fh	PAYPHONE	Payphone

Note:

If Date and Time data is not available, it shall store and display the date and time data from handset inside timer.

The "Withheld" display can be changed to "Private" by EEPROM setting.

The ☎ icon will stay during all incoming alert phase and during call if you answer the call.

The call timer display will come again after 15 seconds if no key pressed.

During standby mode:
The ☎ icon will flash if un-viewed unanswered CLIP(s) in call list, ☎ icon will be off after all unanswered call is read.

3.7.3   VMWI indication
Refer to the VMWI operation

3.7.4   Recall CLIP list

Unanswered and answered calls are stored in the CLIP list of each handset independently (in EEPROM).

Note: any new CLIP call will be stored in EEPROM .

Size storage
Each entry will store:

➢   The call number (20 digits)
➢   The caller name (12 digits) if the network send it
➢   The date and hour of the call

Storage sequence
The CLIP information that has been received during incoming alert phase (calling number, name date/hour) is stored then displayed.

If the new call entries, The ☎ icon will flash (480ms ON/OFF) and will off after all new call is read.

Note: The new message indication is reset at power up, so the ☎ icon is always off after a reset.

MMI operation
To retrieve the entries:

1.   Press **KEY_ UP/CLIP or KEY_ DOWN/CLIP** to enter the call list. The 👤 icon will stay ON

for Unanswered Calls and the 📞 icon will stay ON for Answered Calls. If the list is already empty, then "EMPTY" is displayed on the 1st line
2.
[Display example]
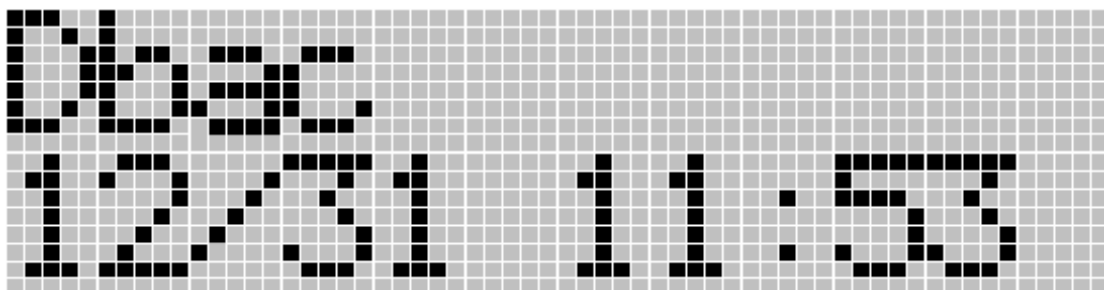
3.   Scroll through the calls using the up **KEY_UP/CLIP** and down **KEY_DOWN/CLIP** arrows.
4.   You will find the different fields of the entry:

If the call is unanswered and un-viewed. The ☎ and 👤 icon will stay ON. The ☎ will be turned off after it is viewed.

If a matched number found in phonebook memory , the corresponding name will be shown otherwise if the caller name is available, the caller name will be displayed. If both are not available, the caller number is displayed on the 1st line.

Press **KEY_OK**, the first 12 digits of caller number is displayed on the 1st line. If the number is more than 12 digits, the first 12 digits are displayed with ▶ icon. Press **KEY_OK** to check the remaining digits with ◀ icon.

5. When the CLIP found no matched number in Phone Book and Calling Number is present, when press **KEY_OK** again , CLIP data can be stored into phone book (see 3.7.7)

To select another call list, simply press **KEY_UP/CLIP** or **KEY_DOWN/CLIP** . Error tone will be sounded if reach the top or bottom of the list.
To return to the previous menu, press **KEY_MEM/EXIT**.
To dial out number just simple press **KEY_HOOK**

3.7.5 Delete one CLIP list

- Press **KEY_CLEAR** and "Delete ?" appears.
- There you can either press **KEY_OK** and CLIP deleted, or presses **KEY_MEM/EXIT** to cancel the delete operation.

3.7.6 Delete all CLIP list

- Long press **KEY_CLEAR** and "Delete All ?" appears.
- There you can either press **KEY_OK** and all CLID are deleted, or press **KEY_MEM/EXIT** to cancel the delete all operation.

To return to the previous menu, press **KEY_MEM/EXIT**

3.7.7 Store a CLIP list into PHONEBOOK

- After appearing the "Add ?" and press **KEY_OK** to confirm (after 3.7.4 step 5)
- Press **KEY_UP/CLIP** or **KEY_DOWN/CLIP** to move the cursor for edit or delete name. If the CLIP data does not have name, LCD shall display "Name ?". And then enter the name.
- Press **KEY_OK** after modified or enter the name.
- Press **KEY_OK** after modified number.
- Select the melody of your choice (1 to 5) and validate
- Press **KEY_OK** to confirm.

3.7.8 Dial out CLIP list

To recall the number from CLIP list, pressing **KEY_HOOK** will dial out the number.

3.7.9 KPN specification handling

3.7.9.1 DC/AC load activation
- When the unit detect the line reverse, the DC/AC load shall apply within 100mS - 200ms.
- When the unit detect line reverse, the unit need to wait next line reverse. If next line reverse detect within 80ms, it define that the line reverse is due to ringer signal.
- If the line reverse is due to ringer signal, the DC/AC load shall not apply
- During ringing stage, if detect ringer off for more than 80ms. The unit shall be ready for detecting line reverse.

- To detect line reverse, the unit shall detect PSTN line 1 and line 2 both polarity changing within 10mS. If only one line polarity changing, it should not be polarity changing. It should be line voltage interruption.
- After finish the call and go to idle stage, the unit shall not detect line reverse for about 100mS from line releasing point.
- DC load shall be 90Kohm - 110Kohm.
- AC load impedance in the voice band shall be greater than 1800ohm and preferable lower than 2400ohm.

3.7.9.2 DC/AC load release
- After detect the line reversal, if the unit does not detect the CID DTMF signal within 1S.
- During receiving the DTMF, if detect the DTMF pause for more than 1 S.
- When received the DTMF 'C" (Stop code).
- Ringer signal is received.
- OFF HOOK the telephone

3.7.9.3 DTMF signal detection
- A valid DTMF signal > 40mS shall be interpreted as a valid digit.
- A valid DTMF signal < 40mS shall not be interpreted as a valid digit.
- If not valid DTMF signal is present during > 40mS, this shall be interpreted as an inter digit pause.
- If not valid DTMF signal is present during < 40mS, this shall not be interpreted as an inter digit pause.
- A level > 37mV shall be recognized as a valid digit.
- A level < 28mV shall not be recognized as a valid digit.

3.8 Phonebook

The phonebook contains up to 50 names of 12 characters max. and numbers of 24 digits. Phonebook is stored in PP EEPROM. One handset phonebook is independent from other locked handsets.

3.8.1 Dial a number of the phonebook list

To call a correspondent whose name you have saved in the phonebook:

- Press **KEY_MEM/EXIT** to enter the phonebook. The will be ON.

[Display example]
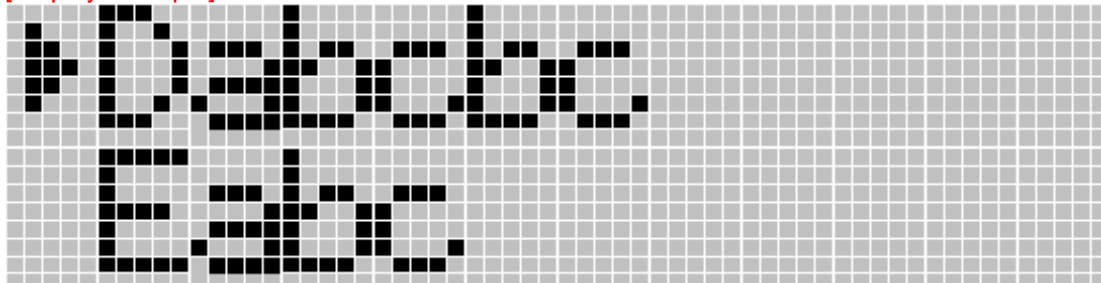
- Press the first letter of the name; the first name that starts with this letter in the alphabet appears. For instance to find names beginning by A, press once on **KEY_2,** to find names beginning by B, press twice on **KEY_2,** to find names beginning by C, press three times on **KEY_2**

- Go through the list of names with the **KEY_UP/CLIP** and **KEY_DOWN/CLIP** keys the list scrolls up/down in an alphabetical order. If press **KEY_DOWN/CLIP,** the 2nd line entry move to 1st line and next entry is displayed on 2nd line.
- Press **KEY_MENU/OK** to display the number and user can press the **KEY_MENU/OK** again to display remaining digits if the recalled phone book number is more than 12. This is only for 1st line displayed entry.
- Press **KEY_MEM/EXIT** returns to standby mode
  OR
- Press **KEY_HOOK** to dial the number of the correspondent whose name is displayed on the 1st line.

3.8.2   See the dial number of the phonebook list during Talk.

- Press **KEY_MEM/EXIT** to enter the phonebook. The will be ON.
- Press the first letter of the name; the first name that starts with this letter in the alphabet appears. For instance to find names beginning by A, press once on **KEY_2,** to find names beginning by B, press twice on **KEY_2,** to find names beginning by C, press three times on **KEY_2**
- Go through the list of names with the **KEY_UP/CLIP** and **KEY_DOWN/CLIP** keys the list scrolls up/down in an alphabetical order.
- Press **KEY_MENU/OK** to display the number and user can press the **KEY_MENU/OK** to start dialling or display remaining digits if the recalled phone book number is more than 12.
- Press **KEY_MEM/EXIT** to returns to normal Talk mode

3.9 Intercom

3.9.1   Internal call
- Press **KEY_INT**
- Enter the number of the internal handset (1 or 2)

The and "INT" icons displayed, the number of the internal handset display "INT" with caller handset number and rings (INT Melody).

Remark: the caller handset go to standby mode if the number of the internal handset is not available or caller handset.
Before enter the number of internal handset, incoming call applied then go to ring in mode.

3.9.2   End of intercom call
Incoming call applied then go to ring in mode.
The number of the internal handset press **KEY_HOOK** go to INTERCOM mode

3.9.3   Intercom mode

The and "INT" icons displayed on both handsets.

3.9.4   End of intercom
Any handset (intercom) press **KEY_HOOK,** go to standby mode.
Incoming call applied then go to ring in mode.

3.10 Page button

Press Page button on the base.
The handsets will ring *RING_1* at volume of handset internal ring level setting and display INT with

"□□□□"during 30s unless page key is pressed again on the base or a key is pressed on any locked handset. (When the handset set to key lock, but it shall be possible to stop the handset paging sound by pressing any key)

3.11 Battery and charge management

3.11.1 Battery indicator
5 levels indicators icon for mean battery voltage:

> = EEP_BAT_FULL_LEVEL

> = EEP_BAT_HALF3_LEVEL

> = EEP_BAT_HALF2_LEVEL,

Blanking > = EEP_BAT_ALARM_LEVEL

3.11.2 Low battery conditions
If the following conditions are applied:
 During a call,
 • If mean battery level is less than EEP_BAT_HALF1_LEVEL,
 • If battery warning tone option is ON
then a *TONE_LOW_BATT* will be emitted every minute.

In any state (standby or call), If mean battery level is less than EEP_BAT_ALARM_LEVEL, handset will enter in power down mode.

3.11.3 Charge conditions
If the following conditions are applied:
 • In standby mode,
 • If battery warning tone option is ON
 • The handset is put on its charger (debounce time: 200 ms)
then a *TONE_CONFIRM* will be played.

Charging icon:

 Scroll for display handset is charging, fast scroll when quick charging mode,

3.11.4 Start-up with low batteries

If battery level at start-up is lower than EEP_BAT_HALF2_LEVEL, the handset will stay in sleep mode (no LCD, no RF, no MMI working). You need to put the handset into charge until battery level reaches EEP_HALF2_LEVEL.

3.12 Range indication

3.12.1 Out of range tone

If the following conditions are applied:
- The handset has been out of range since EEP_RANGE_OUT_DELAY s
- If range warning tone option is ON

then a *TONE_WARNING* will be played.

EEP_RANGE_OUT_DELAY : selected by EEPROM data

3.12.2 In range tone

If a *TONE_WARNING* has been played, a *TONE_IN_RANGE* is played when the handset goes into range the next time.
Note: at start-up, the handset plays the *TONE_IN_RANGE* only if it goes into range after more than 10 s.

3.12.3 Range limit tone during a call

During a call, in range limit conditions, the handset will play a *TONE_WARNING* in the Buzzer
The tone is repeated until range conditions are good
If the handset goes out of range, the call is released (on both handset and base).

3.13 Clock and Alarm clock

3.13.1 Clock
The handset has clock indication. The clock data is inside the base unit. So, all the handsets have same clock indication.
- Update the time by using one of handset.
- The time data is also updated by CLIP data if the CLIP data has time data.

3.14 Alarm activation

When the unit is set to alarm ON and the clock reach to the alarm setting time, the handset shall

generate the alarm sound. And Alarm icon 🔔 needs to be turned ON on the LCD. Once the clock is reach to alarm setting time, start to generate the alarm sound. When stop generating alarm sound, the

alarm setting shall be OFF and the icon 🔔 shall be turned OFF.

3.14.1 During idle

The sound level shall follow the handset internal ring level. However, if the setting is "OFF" the alarm sound level shall be "Level 1". During generating the alarm sound, press any key to stop the alarm without any operation even the handset is "**Key Lock**" mode. For example, press **"KEY_HOOK"** to stop the alarm, however, the handset should not go to talk mode.
If do not press any key for more than one minute, the alarm shall stop automatically.

3.14.2 During Talk

The sound level shall be same as Battery Low warning tone. During generating the alarm sound, press any key to stop the alarm without any operation.

3.14.3 During ringing or paging

The alarm sound shall not active during paging or ringing.

4 MENU Settings

Menu structure

A wide range of phone settings are accessible through a user friendly menu.
- To enter the menu, press **KEY_MENU/OK**
- Scroll through the selections using the **KEY_UP/CLIP** and **KEY_DOWN/CLIP** keys, the selections scroll in a loop (you return to the first after the last). To validate a selection, press **KEY_MENU/OK**
- To return to the previous menu, press **KEY_CLEAR.**
- To escape a menu and return to standby mode, press and hold **KEY_CLEAR.**
- After 15 s without pressing any key, the handset returns in standby mode

Phonebook	Add Entry	Name ?	Number ?	Melody 1 … 5
	Modify Entry	Melody 1 … 5		
	Delete Entry	Confirm ?		
SMS (Refer to SMS operation document)	(Refer to SMS operation document)			
MSG Play ****	(Refer to DECT 15 operation document)			
TAM Setting ****	(Refer to DECT 15 operation document)			
Setup	Base Volume	Volume off Volume 1 ... 5		
	Base Melody	Melody 1 … 5		
	Del Handset	PIN ?	Handset ?	
	PIN Code	PIN ?	New PIN Re-Type	
	Dial Mode	Tone Dial Pulse Dial		
	Recall	Recall 1 Recall 2		
	First Ring	ON OFF		
	Default	PIN ?	Confirm ?	
Handset	Beep	Key Tone	ON OFF	
		Low Battery	ON OFF	
		Out of Range	ON OFF	
	INT Ring Vol	Volume OFF Volume 1 … 5		
	EXT Ring Vol	Volume OFF Volume 1 … 5		
	INT Melody	Melody 1 … 10		
	EXT Melody	Melody 1 … 10		
	Date and Time	Date ?	DD / MM	

		Time ?	HH : MM	

	Alarm Set	ON OFF	Time ?	
	Auto Answer	OFF ON		
	Name			
	Redial Size ***	XX (EEPROM setting 1)		
		YY (EEPROM setting 2)		
	**Language	English French German Italian Spanish Nederland Scandinavian		
	Hot keys	Hot key 1 Hot key 2	XXXXXXXX YYYYYYYY	(Display current setting number)
	Key Lock ?			
Register	Select Base	*+ Base 1 2 3 4 Auto	New Base X	
	Reg Base	+ Base 1 2 3 4	Searching...	PIN ?

Notes : * Only registered base number will be shown.
Notes : + Registered Base Number will blinking
Notes : ** The languages are just example. (Defined by other section)
Notes : *** This menu only appear when the value of EEPROM setting 1 and EEPROM setting 2 are different.
Notes : **** Those menu for DECT 15. DECT 10 handset shall have ability to be registered to DECT 15 Base. Once register to DECT 15 Base, those menu appear on the menu screen and function as DECT 15 handset. Refer the DECT 15 MMI document

4.1 PHONEBOOK

- Select "PHONEBOOK"

4.1.1 Add a name

- Select "Add Entry"
- Enter the new name and validate.
- Enter the new telephone number and validate

- It is possible to enter the following data for number entering.
  - **KET_1** to **KEY_0**
  - **KEY_STAR and KEY_#**
  - **KEY_LNR** (Pause)
  - **KEY_R** (Recall, Flash)
- Select the melody of your choice (1 to 3) and validate
- Press **KEY_OK** to confirm.

With your telephone you can write text as well as figures. This is useful for entering a name into the address book, giving a name to a handset, …
To select a letter, press the corresponding key as many times as is necessary. For example to select an 1, press 2 once, to select a B, press 2 twice and so on. To select A and then B consecutively, select a 1, wait until the cursor moves on to the next character, then select a B.

Select Upper case										
1	.	,	-	?	!	`	@	:	;	1
2	A	B	C	2	Ä	Å	Æ			
3	D	E	F	3	É	Δ	Φ			
4	G	H	I	4	Γ					
5	J	K	L	5	Λ					
6	M	N	O	6	Ñ	Ö	Ø	Ω		
7	P	Q	R	S	7	Π	Ψ	Σ		
8	T	U	V	8	Ü	Θ				
9	W	X	Y	Z	9	Ξ				
0	(Space)	0								
*	*									
#	Change the case									

Lower case										
1	.	,	-	?	!	`	@	:	;	1
2	a	b	c	2	ä	à	å	æ	ç	
3	d	e	f	3	è	é				
4	g	h	i	4	ì					
5	j	k	l	5						
6	m	n	o	6	ñ	ò	ö	ø		
7	p	q	r	s	7	β				
8	t	u	v	8	ù	ü				
9	w	x	y	z	9					
0	(Space)	0								
*	*									
#	Change the case									

The following symbols need to be under "0" and "*"

.						(	)			&		"
\	/	_	[	]	$	¥	£	€	%	+	*	=
~	<	>	#	|	^	¡	¿	§	¤	{	}	

4.1.2 Delete a name
- Select "Delete Entry" and then press **KEY_OK**
- Move through the list of names using the **KEY_UP/CLIP** and **KEY_DOWN/CLIP** keys the list scrolls down in alphabetical order.
- Press **KEY_OK** when you find the name you wish to delete
- "Confirm ?" appears, press **KEY_OK** to confirm.

4.1.3 Modify a name or number
- Select "Modify Entry" and then press **KEY_OK**
- Move through the list of names with the **KEY_UP/CLIP** and **KEY_DOWN/CLIP** keys. The list scrolls down in alphabetical order.
- Press **KEY_OK** when you find the name to modify
- Press **KEY_UP/CLIP** or **KEY_DOWN/CLIP** to move the cursor for edit or delete name.
- Press **KEY_OK** after modified name.
- Press **KEY_CLEAR** to delete number.
- Press **KEY_OK** after modified number.
- Select the melody of your choice (1 to 3) and validate
- Press **KEY_OK** to confirm.

4.1.4 Change the character case
During entering the name or modifying the name, the user can change the character case by pressing **KEY_#.** When enter the name editing menu, the starting character is always upper case. The character case indication shall be on the Time display as follows.

- Upper case

ABC

- Lower case

abc

4.2 SETUP
- Select "Setup"

4.2.1 BASE VOL
This menu enables you to adjust base ring volume
- Select "Base Volume" and validate
- Select the desired volume (Volume OFF or Volume 1 to 5) and validate

4.2.2 BASE MEL
This menu enables you to select base ring melody
- Select "Base Melody" and validate
- Select the melody of your choice (1 to 5) and validate

4.2.3 DEL HS
You can cancel a handset's association with a base to allow another handset to be associated
- Select "DEL Handset" and validate
- Enter the PIN code and validate
- Select the handset to be cancelled and validate

4.2.4 PIN CODE

The base PIN code is used in subscription operation or to modify some critical parameters in the base.

To change the PIN code:
- Select "PIN code" and validate
- Enter the old 4 figure confidential code and validate
- Enter the new 4 figure confidential code and validate
- Enter the new confidential code a second time and validate

4.2.5 Dial mode selection (This mode will not appear when set the Pulse dialling disable by EEPROM)

Two types of dialling are available:

1. DTMF tone dialling
2. Pulse dialling

To change the dialling mode:

- Select "Dial Mode" and validate
- Select "Tone" or "Pulse" of dial mode and validate

FTXX_DIAL_MODI : selected by EEPROM data

Note: the Dial mode selection menu can be hidden to lock the base into pulse or DTMF dialling by the CONFIG_ENA_MENU_DIALMODE flag (see various factory settings).

4.2.6 Recall duration selection

- Select "Recall"
- Choose Recall 1 to select short flash time
- Choose Recall 2 to select long flash time

RECALL 1 & 2 timing: selected by EEPROM data

Note: not recall select function in if Recall 1 & Recall 2 is same timing.

4.2.7 Default settings

This menu enables you to reset both handset and base with default settings.
- Select "Default"
- Enter the base PIN code and validate
- "Confirm ?" appears, press **KEY_OK** to confirm

Then the handset and base will apply default parameter settings and make a software RESET.

Default parameter	Value
Handset name	To be advised
Low battery indicator	ON
Out of range indicator	ON
Key click	ON
Auto answer	ON
INT melody	1
INT volume	3
EXT melody	1
EXT volume	3
Ear volume	3
Language	English
Phonebook	Empty
CLID list	Empty
Redial list	Empty
PIN CODE	0000
PAUSE	3 s
Dial mode	DTMF

Key lock	OFF
Clock	00:00
Alarm	OFF
Date	Jan 1st
RPAS enable /disable	Enable
Handfree mode speaker volume	3 (Only for DECT 24)
RPAS length setting	400mA
Recall setting	Recall 1
Redial size	32
Handset Name	Handset
Hot key 1 number	XXXXXXXXX (TBA)
Hot key 2 number	XXXXXXXXX (TBA

Default values in handset and base are defined by EEPROM settings [1]. So they can be adjusted for each country.

4.3 HANDSET

- Select "Handset"

4.3.1 BEEP

Beep features
The handsets may or may not emit beeps while the keys are pressed , the batteries are low and when the handset is out of range of the base.

4.3.1.1 KEYTONE

- Select "Key Tone" and validate
- Select "ON" or "OFF" and validate

4.3.1.2 LOW BATTERY

- Select "Low Battery" and validate
- Select "ON" or "OFF" and validate

4.3.1.3 OUTRANGE

- Select "Out Range" and validate
- Select "ON" or "OFF" and validate

4.3.2 INT RING VOL

This menu enables you to adjust handset ring volume (intern melody)
- Select "INT Ring Vol" and validate
- Select the desired volume (Volume OFF or Volume 1 to 5) and validate

4.3.3 EXT RING VOL

This menu enables you to adjust handset ring volume (extern melody)
- Select "EXT Ring Vol" and validate
- Select the desired volume (Volume OFF or Volume 1 to 5) and validate

4.3.4 INT MELODY

This menu enables you to choose a different melody for internal call
- Select "INT Melody" and validate
- Select the melody of your choice (1 to 5) and validate

4.3.5   EXT MELODY

This menu enables you to choose a different melody for external call

- Select "EXT Melody" and validate
- Select the melody of your choice (1 to 5) and validate

4.3.6   DATE AND TIME

There are two menu inside the DATE and TIM. One is to set the date and other is to set the time.

4.3.6.1   Date setting

- Select the DATE ?
- When enter Date setting mode, LCD display current Date with flashing Date indication. (Display on dots matrix area)
- Enter the Date and Month by the following format.
  - The format is DD / MM. If the Date is 5th, it should enter "05". If the date is 15th, it should enter "15"
  - After enter data, enter the month. If Jan, it should enter 01.
    - If the CLIP data has Date data, the Date data shall be updated by CLIP Date data.
    - The Date data shall be kept at base unit and when the handset turned on, the Date data shall be transferred from base to handset.
    - If enter wrong data such as 32nd for Date field, it will be error tone and change to 01 on date filed.

4.3.6.2   Time setting

- Time setting should be 24 hour format.
- When enter Time setting mode, LCD display current time with flashing hour indication. (Display on dots matrix area)
- Enter the current time by 24-hour format and validate. And same time, the update data send to base to keep for all the handset to have same clock.
- After validate the time, the time indication move to 7-segment time display area.
- If the CLIP data has time data, the clock shall be updated by CLIP time data.
- The time data shall be kept at base unit and when the handset turned on, the time data shall be transferred from base to handset.
- If enter wrong data such as 25 for Hour field, it will be error tone and change to 01 on hour filed.

4.3.7   ALARM SET

This menu enables you to set the Alarm.

- Select "Alarm Set" and validate.
- Select "ON" or "OFF" by using **KEY_UP/DOWN** key and validate.
- If select "ON", the display shows previous setting time with flashing hour indication. (If no previous data, the display should be 00:00)
- Time setting is same as Clock setting.
- After set the Alarm time, the Alarm icon shall be ON.

4.3.8   AUTO ANSWER

When there is an incoming call and the handset is on the base, the phone automatically takes the line.

- Select "Auto Answer" and validate
- Select "ON" to activate "OFF" to deactivate and validate

4.3.9   NAME

This function allows you to personalise each handset.

- Select "Name" and validate
- Enter the name and validate (max 10 chars)
- During entering the name, the user can select the character case by pressing **KEY_LNR**

4.3.10 KEY LOCK

This function allows you to lock the key

- Select "Key lock ?" and validate
- Press **KEY_MENU/OK** to lock key, ⛬ icon displayed and go to standby mode.

Note: Press **KEY_HOOK** key can be OFF HOOK during incoming call and Key Lock is on.

4.3.10.1 Quick KEY LOCK

Simply press and hold **KEY_STAR/LOCK** 3 second

4.3.10.2 To unlock key:

- Press any key "Press   " is displayed, within 5s time out
- Press **KEY_STAR/LOCK** to unlock key

4.4 REGISTER

- Select "Register" and validate
- Select "Select Base" or "Reg Base" by KEY_UP or KEY_DOWN
- Press **KEY_OK** to confirm

4.4.1 SELECT BASE

- Select "Select Base" and validate
- "Base 1 2 3 4" is displayed (only the registered base number will be shown and current base number will be blinking)
- Press 1 - 4 to confirm the selection or KEY_UP/KEY_DOWN + KEY_F to select auto searching.
- Valid tone is sounded if valid base is found
- "Not Register" is shown and error tone sounded the selection is invalid

4.4.2 REG BASE

- Select "Reg Base" and validate
- "Base 1 2 3 4" is displayed (only the registered base number will be blinking)
- Press 1 - 4 to confirm the selection
- It is now searching the base in subscription mode and "Searching…" is displayed
- Valid tone is sounded and "PIN ?" is shown if valid base found
- Enter subscription PIN code and verified by base
- Valid tone sounded if subscription is successful and back to standby mode.

On the base:

- Put the base into subscription mode, by pressing and holding **PAGE_KEY**
- The base will then emit a beep, the Line LED will flash. It is now ready to be associated with a new handset, during the 90 seconds after pressing the button only.

If the handset has located the base, a valid tone is played.
If the handset does not locate the base, it will return to the previous configuration after 1 minute. Try again by changing the base number and check that you are not in a environment where there is interference

When a handset is associated with a base, it is given a handset number by the base. It is this number which is displayed on the handset after the name and must be used for internal calls.

5   Prefix dialling

There are two data for prefix dialling. One is Detect string and other is Replace string. If user enter the number and first several string match with the pre-programmed string data, then the string will be replaced by pre-programmed Replace string data. This function can be enabled or disabled by EEPROM setting. When this function is active, the maximum number of digits for pre-dial is 31 digits.

5.1   Detect string

The pre-programmed detect string is 5 digits inside the EEPROM. The data is 1 to 0 and F (F is for blank) If the Detect string need to be 003 then the data shall be F,F,0,0,3

5.2   Replace string

The pre-programmed replace string is maximum 10 digits inside the EEPROM. The data is 1 to 0

5.3   Detecting and replacement

The prefix dialling is only working when the dialling is prepared dialling which mean enter the dial number during idle mode and then OFF HOOK. The product will check the first few digits (maximum 5 digits depended on Detect string data) and if match with detect string, then replace the detected string to the replace string. If the detect string is all F, there will be no matching and add the replace string to the dialled number except the dialled number starting from not 1 to 0.

EX 1
Detect string   : FFF00
Replace string   : 1234567
Dialling number   : 00567456
The product will dial ---- 1234567-567456

EX 2
Detect string   : FFFFF
Replace string   : 1234567
Dialling number   : 00567456
The product will dial ---- 1234567-00567456

EX 3
Detect string   : FFFFF
Replace string   : 1234567
Dialling number   : 13567456
The product will dial ---- 1234567-13567456

EX 4
Detect string   : FFFFF
Replace string   : 1234567
Dialling number   : #13567456
The product will dial ---- #13567456

EX 5
Detect string   : FFFF0
Replace string   : 1234567
Dialling number   : 00567456
The product will dial ---- 1234567-0567456

EX 6
Detect string   : FFFF0
Replace string   : 1234567
Dialling number   : 0567456

The product will dial ---- 1234567-567456

EX 7
Detect string   : FFF00
Replace string   : 1234567
Dialling number   : 0567456
The product will dial ---- 0567456

6   DECT 24 addendum (Set the EEPROM setting for DECT 24)

6.1   Change to Handset keypad layout

All keys have the same function as those in the DECT 10 specification

	KEY_CLEAR	KEY_HANDSFREE KEY_CASE	KEY_OK KEY_MENU
		KEY_UP KEY_LNR KEY_PAUSE	
	KEY_MEM KEY_ESC	KEY_DOWN KEY_CLIP	KEY_HOOK_OFF KEY_HOOK_ON
	KEY_1	KEY_2	KEY_3
	KEY_4	KEY_5	KEY_6
	KEY_7	KEY_8	KEY_9
	KEY_STAR KEY_DTMF	KEY_0	KEY_HASH
	KEY_R POWER DOWN		KEY_INT

6.1.1 LCD display

The LCD display is composed of 12 characters dots matrix form (8 X 5 matrix), 4 characters 7 segments and 18 icons. (Icon drawings are just reference only. Plesae refere to the LCD specification)

The definition of the icons is as follows:
(Icons are just reference only)

Icon	NAME	Definition
(hook icon)	HOOK_IND	Off hook indicator
EXT	EXT	External call engaged
INT	INT	Internal call engaged
(phone icon)	NEW_CLIP_IND	Caller identification available /new numbers in call listing
(answered call icon)	CLIP_ANSWERED	Indicate answered call
(person icon)	CLIP_UNANSWERED	Indicate unanswered call
(book icon)	PHONEBOOK_IND	Phonebook indicator
(arrow icon)	MENU_IND	Menu indicator
(battery icon)	BATTERY	3 levels battery indicator 1 segment: weak, 2 segments: medium, 3 segments: full The segments scroll during battery recharging and stop scrolling when battery is full
(key icon)	LOCK_IND	Handset keypad locked
(antenna icon)	ANTENNA	Signal strength indicator. The icon is steady when handset is locked to its base The icon flashes when the handset is unlocked or not subscribed to any base
(left arrow icon)	LEFT_ARROW	Indicates that displayed number or message is longer than the screen (12 digits)
(right arrow icon)	RIGHT_ARROW	Indicates that displayed number or message is longer than the screen (12 digits)
(tam icon)	TAM_MSG	VMWI indication
(envelope icon)	NEW_SMS_IND	New SMS message indication
(vmwi icon)	VMWI_IND	For the DECT 15
(speaker icon)	HAND_FREE	Hand free indicator
(bell icon)	ALARM_SET	Alarm set indicator

Pressing the KEY_HANDSFREE from standby mode causes the unit to enter speakerphone mode. The call is ended by pressing KEY_HOOK_OFF. The user can switch between handsfree and normal mode by pressing KEY_HANDSFREE.
Pressing UP/Down key to adjust the speaker volume during handfree mode. (5 steps)
The adjusted level shall be kept for next handfree mode.
The setting is only for handfree speaker volume and it shall not effect the earpiece sound level.

When in speakerphone mode the *SPEAKER_IND* icon shows in the LCD

7   Quick default settings

If you have lost your PIN code, the following procedure allows you to restore default settings on handset and base.
Press **KEY_STAR** on handset when power up (insert and remove batteries). The display shows "DEFAULT". Press **KEY_OK**. When the handset locks onto its base, both will restart.

8   Subscribe a new handset

Refer to MENU mode's REGISTER page

The base can support a maximum of 2 handsets. If you already have 2 handsets, and you wish to change one of them, you must firstly delete a handset, then associate the new handset.

9   Test modes

9.1   Handset test modes

Refer to document of TEST MODE

9.2   Base unit test modes

Refer to document of TEST MODE

10 Specifications

10.1 CLIP Standards

The phone supports the following CLIP features defined by the identified standard:

Feature	Country	Standard
FSK type I	All applicable	EN 300 659-1, EN 300 778-1 and EN 300 659-3
FSK type II		EN 300 659-2, EN 300 778-2 and EN 300 659-3
DTMF		EN 300 659-1 Annex B, and EN 300 788-1 Annex A
Bellcore standard		To be advised

Note : No impedance matching is required except KPN

10.2 DECT Specifications

The phone complies with the following standards

Part	Standard
DECT Radio	EN301 406
DECT GAP	TBR 22
Analogue Telephone Network	TBR 21 and TBR 38
EMC	EN301 489-1 and EN301 489-6
Safety	EN 60950