



## Product Definition Document

### Version 1.1



**Customer:** XACT

**Country:** USA

**Model:** XD6451 / XHB401

**Roadmap Number:** DECT 34-2

**Cabinet Reference:** T21

### **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.
- Consult the dealer or an experienced radio/TV technician for help.



FCC INTERFERENCE INFORMATION

### **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.

FCC Part 15.19

FCC Part 15.21

FCC Part 15.105(b)

FCC Part 2.1091

FCC Part 2.1093

## **Consumer Information:**

- a) This equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. On the **bottom** of this equipment is a label that contains, among other information, a product identifier in the format **US:AAAEQ##TXXXX**. If requested, this number must be provided to the telephone company.
- b) An applicable certification jacks Universal Service Order Codes (USOC) for the equipment is provided (i.e., **RJ11C**) in the packaging with each piece of approved terminal equipment.
- c) A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. A compliant telephone cord and modular plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant. See installation instructions for details.
- d) The REN is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company. [For products approved after July 23, 2001, the REN for this product is part of the product identifier that has the format **US:AAAEQ##TXXXX**. The digits represented by **##** are the REN without a decimal point (e.g., 03 is a REN of 0.3). For earlier products, the REN is separately shown on the label.]
- e) If this equipment **XD6451;XHB401** causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.
- f) The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.

g) Should you experience trouble with this equipment, please contact:

**Company name: XACT COMMUNICATION,LLC.**

**Address: 105 Madison Avenue New York, NY 10016**

**Telephone: 212 481 7950**

for repair or warranty information. If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

h) Please follow instructions for repairing if any (e.g. battery replacement section); otherwise do not alternate or repair any parts of device except specified.

i) Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

j) **NOTICE:** If your home has specially wired alarm equipment connected to the telephone line, ensure the installation of this **XD6451;XHB401** does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

k) This equipment is hearing aid compatible.

**"This product meets the applicable Industry Canada technical specifications."**

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of a certified connector assembly (telephone extension cord). The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Caution: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

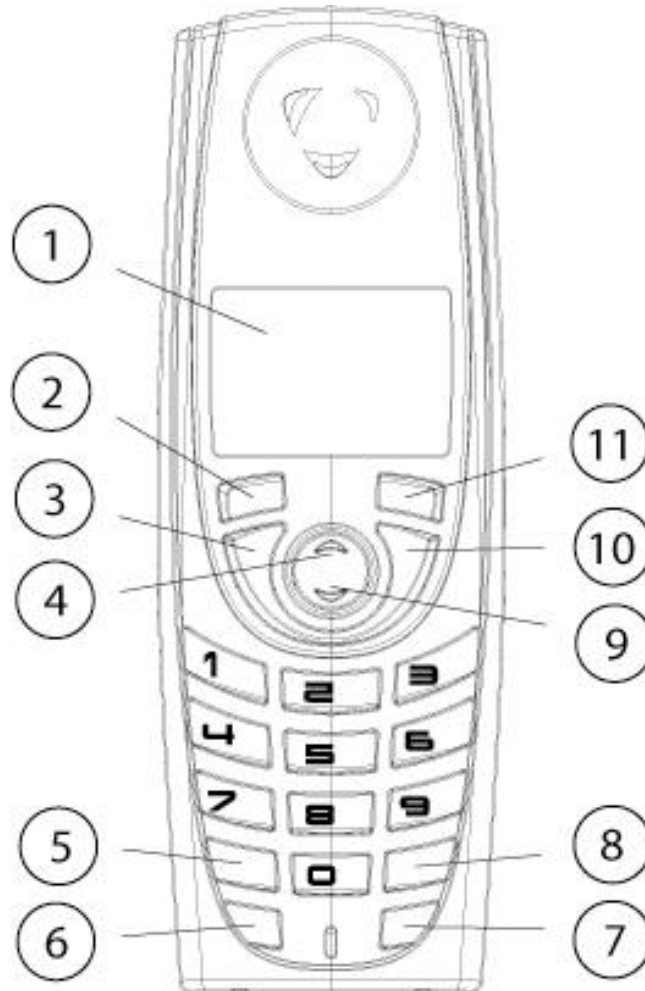
**"The Ringer Equivalence Number is an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed five."**

"Privacy of communications may not be ensured when using this phone."

"This Class B digital apparatus complies with Canadian ICES-003.  
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada."

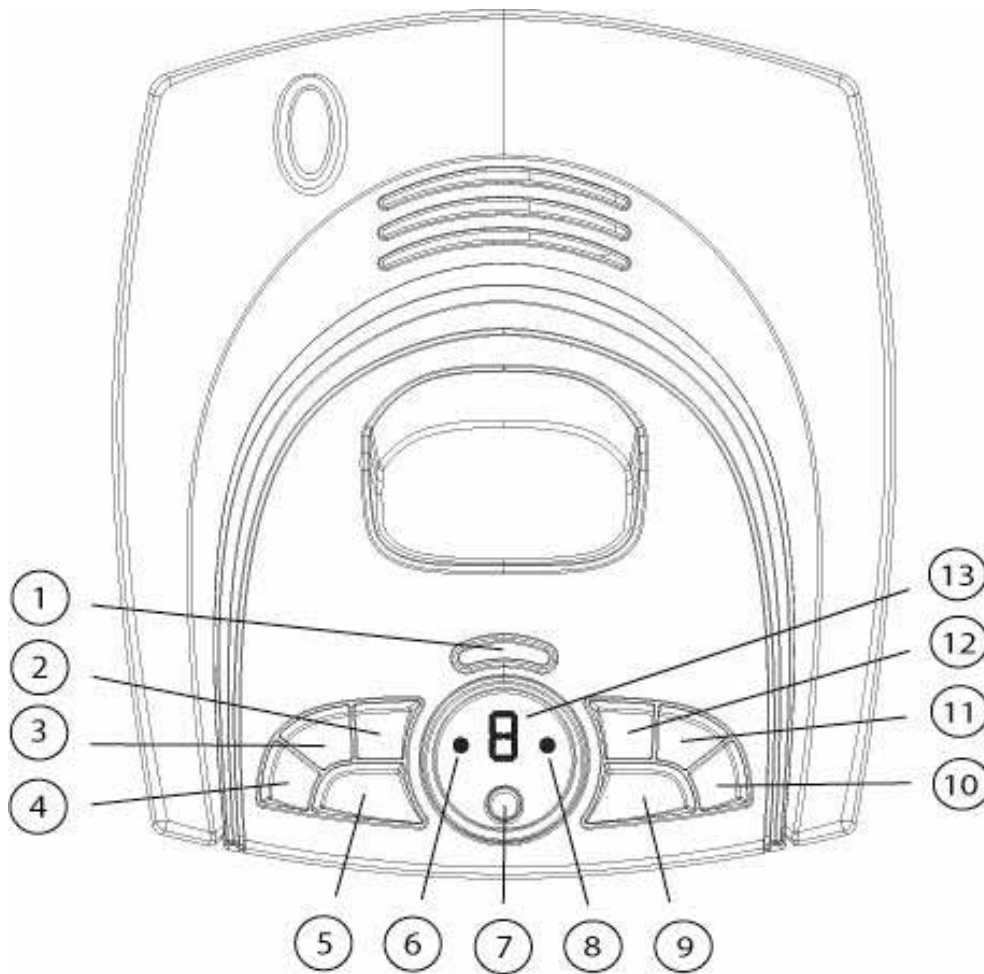
## 2 Panel Layout

### 2.1 Handset Front



1	4096 Colour; Full Graphic (1.4 inch), 128 x 128 pixels LCD
2	Softkey 1
3	Talk On / Handsfree (switch between talk and handsfree mode)
4	Enter Redial List / Pause / Volume Up
5	* / Switch from Pulse to Tone mode
6	Flash (Recall)
7	Intercom
8	#
9	Enter Names List / Volume Down
10	Talk Off
11	Softkey 2

## 2.2 Base Unit

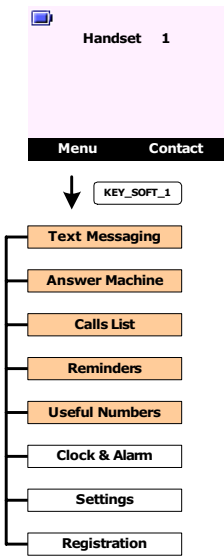


1	Page Key
2	Volume Up
3	Volume Down
4	OGM Key
5	Answer On/Off
6	Power / In Use Indicator LED
7	Delete
8	Charging Indicator
9	Play
10	Skip Forwards / Set Ringer Delay
11	Stop
12	Skip Backwards / Record Memo
13	Message Indicator LED

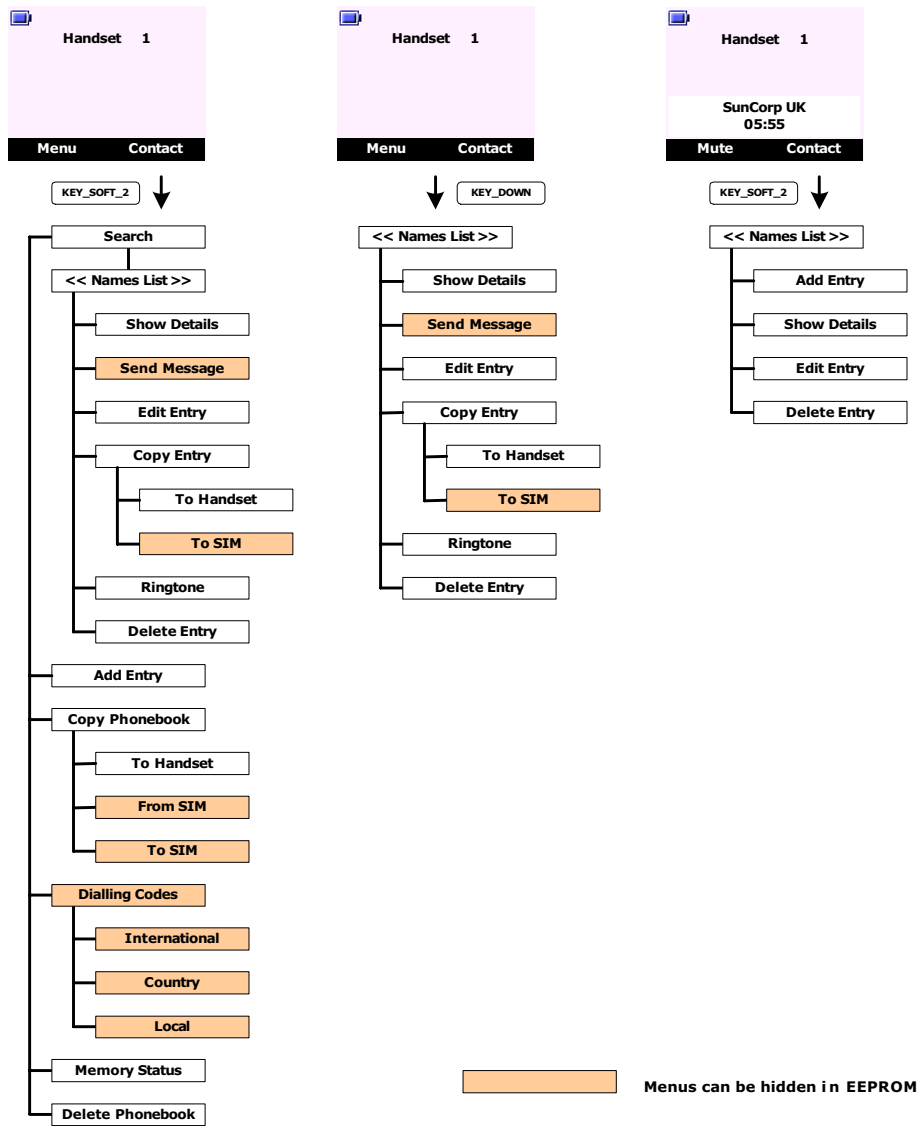


**PRODUCT - MENU TREE**

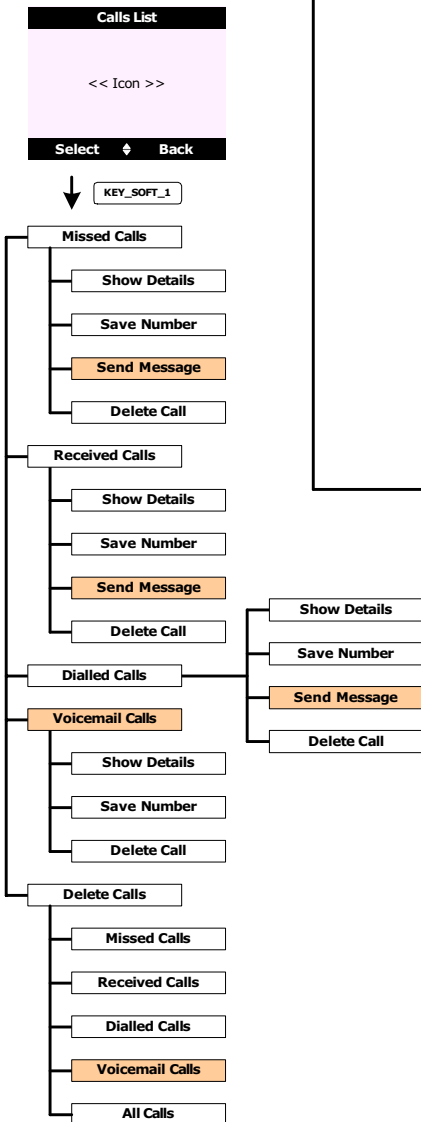
**MAIN MENUS**



**CONTACT**

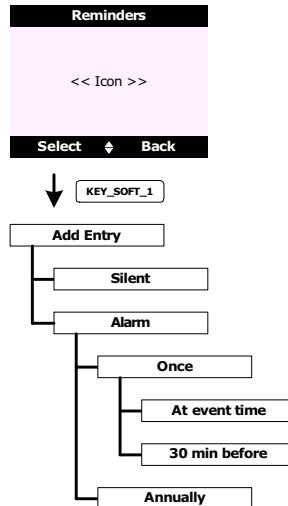


**CALLS LIST**

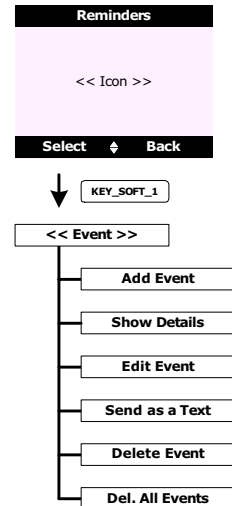


**REMINDERS**

When there is no event stored:

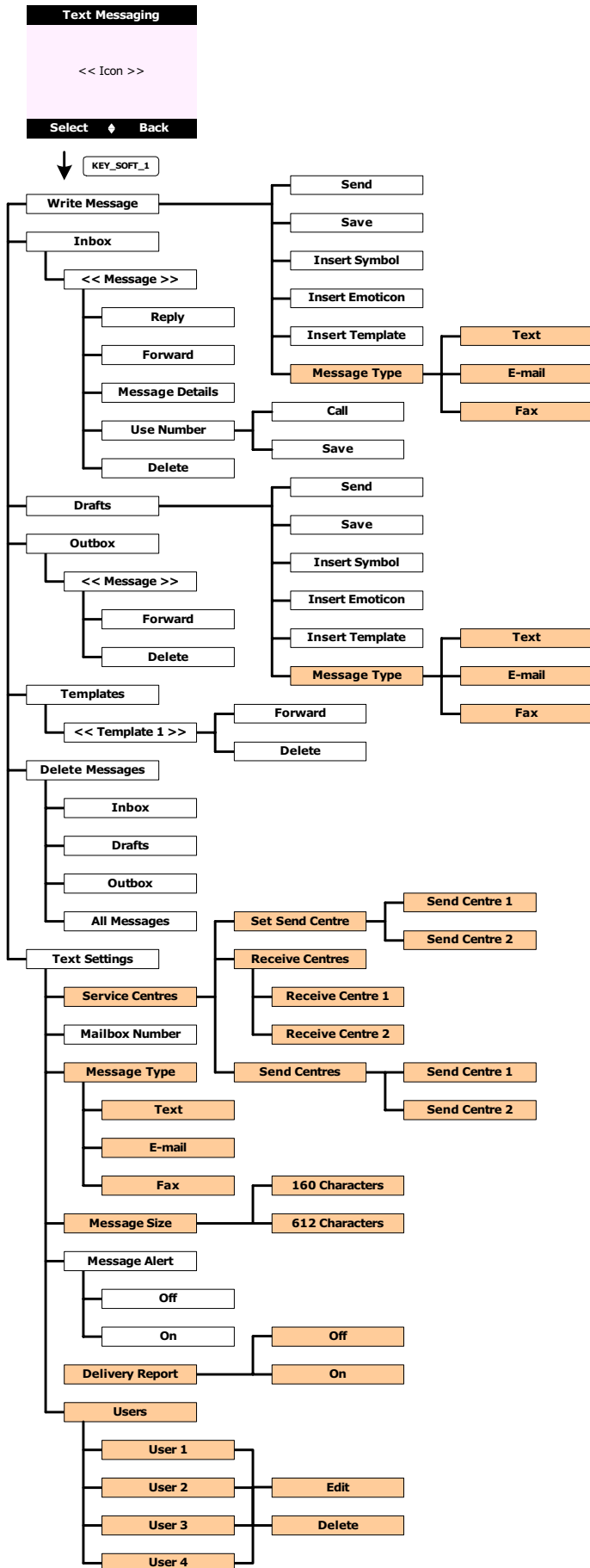


When there is event stored:

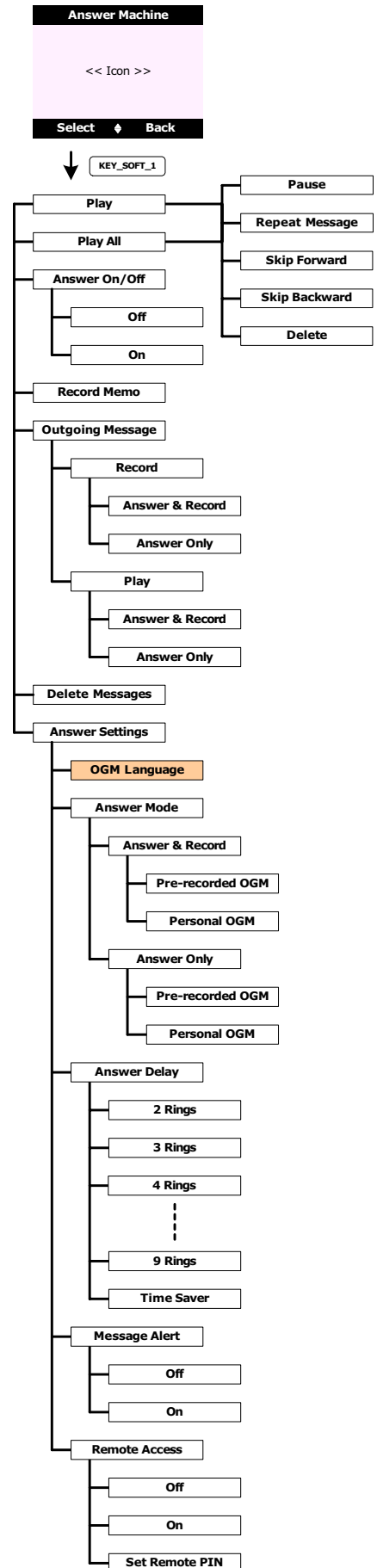


**PRODUCT - MENU TREE (cont.)**

**TEXT MESSAGING**

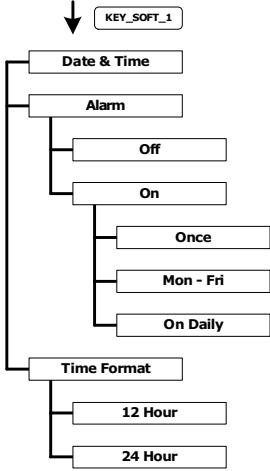
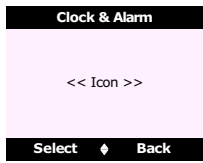


**ANSWERING MACHINE**

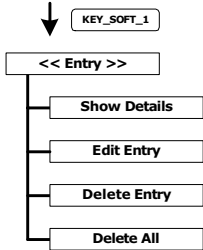
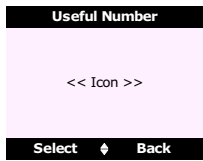


**PRODUCT - MENU TREE (cont.)**

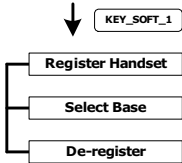
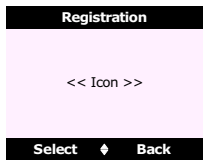
**CLOCK & ALARM**



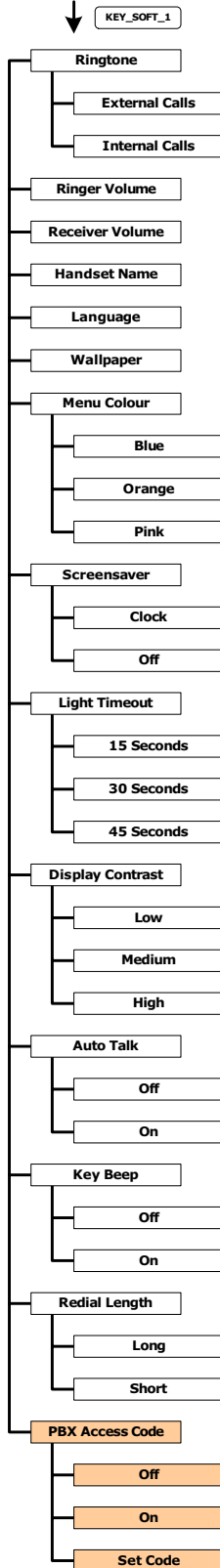
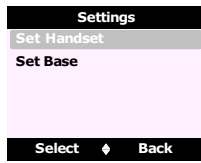
**USEFUL NUMBER**



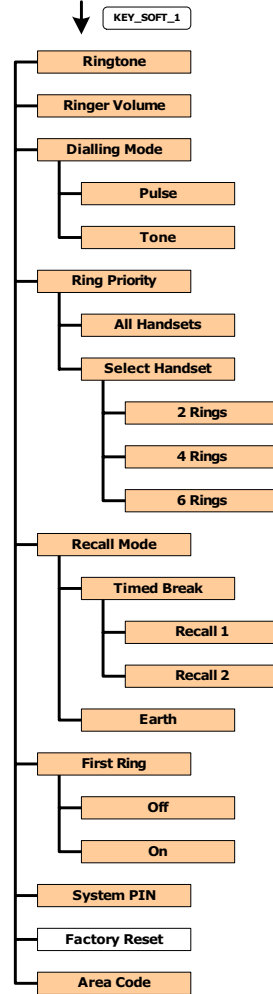
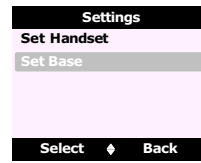
**REGISTRATION**



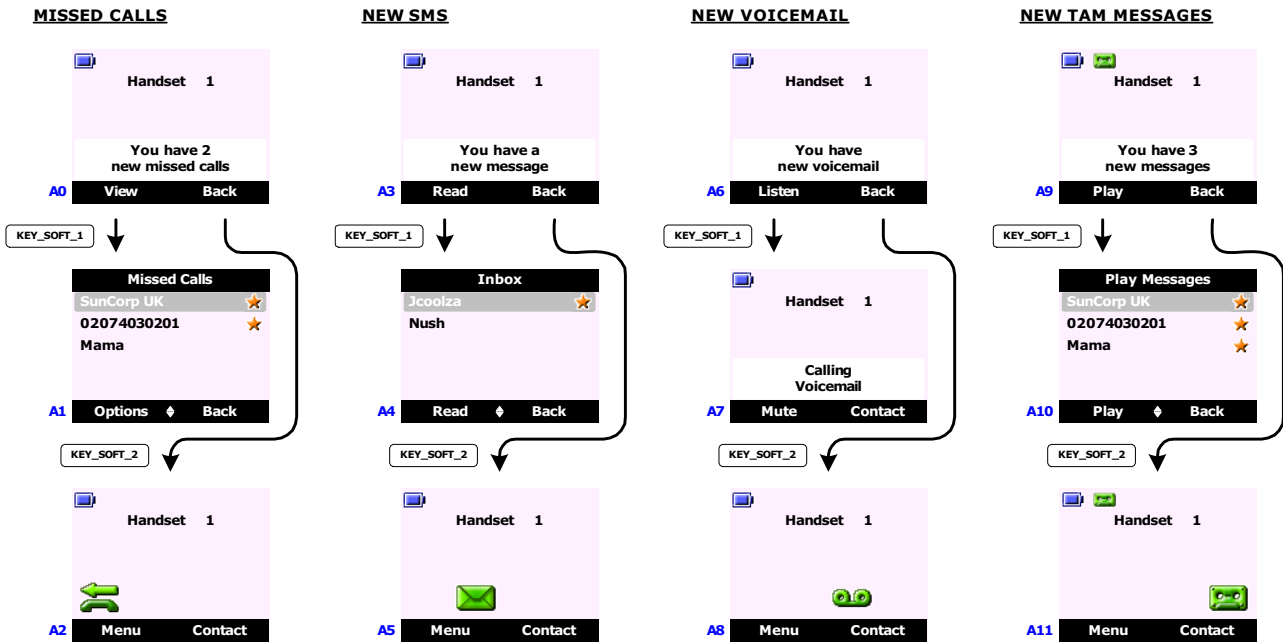
**SET HANDSET**



**SET BASE**



## REMINDER ICONS



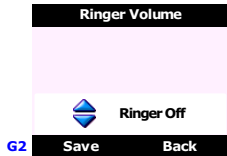
- When there is/are (a) new missed call(s) - the display prompts "You have (a) new missed call(s)" (see screen A0).  
To view missed call(s) press **View** (KEY\_SOFT\_1) - the user is taken directly to the list of new missed calls.  
To view the call(s) at later time press **Back** (KEY\_SOFT\_2) at screen A0 - the display returns to idle with relevant reminder icon(s) remain on the display (see screen A2).  
Only missed/unanswered calls will trigger the new calls indication/missed call reminder icon on the idle screen. Answered calls are added to the received calls list with no new call indication.
- When there is/are (a) new text message(s) - the display prompts "You have (a) new message(s)" (see screen A3).  
To read message(s) press **Read** (KEY\_SOFT\_1) - the user is taken directly to the list of new messages. The user can selectively read messages by pressing KEY\_UP and KEY\_DOWN to highlight the message then press **Read** (KEY\_SOFT\_1) to read the message (see screen A4).  
To read the message(s) at later time press **Back** (KEY\_SOFT\_2) at screen A3 - the display returns to idle with relevant reminder icon(s) remain on the display (see screen A5).
- When there is/are (a) new VMWI message(s) - the display prompts "You have new voicemail" (see screen A6).  
To listen to message(s) press **Listen** (KEY\_SOFT\_1) - the handset will dial out to the voicemail server number. If the voicemail server number received is different to the preset number on the handset - the number received will overwrite the preset number.  
To listen the message(s) at later time press **Back** (KEY\_SOFT\_2) at screen A6 - the display returns to idle with relevant reminder icon(s) remain on the display (see screen A8).
- When there is/are (a) new TAM message(s) - the display prompts "You have (a) new message(s)" (see screen A9).  
To play message(s) press **Play** (KEY\_SOFT\_1) - the user is taken directly to the list of new messages. The user can selectively play messages by pressing KEY\_UP and KEY\_DOWN to highlight the message then press **Play** (KEY\_SOFT\_1) to play the message (see screen A10).  
To play the message(s) at later time press **Back** (KEY\_SOFT\_2) at screen A9 - the display returns to idle with relevant reminder icon(s) remain on the display (see screen A11).
- In situation where there are many event logs - the order of priority (from most important) is TAM messages, VMWI messages, text messages and then missed calls.  
For example, in a situation where there are three TAM messages, one missed call and two text messages - the display will prompt "You have 3 new messages" with the KEY\_SOFT\_1 labelled **Play**.
- If KEY\_SOFT\_1 is pressed to access relevant events from Idle. For example, if **Play** (KEY\_SOFT\_1) is pressed from idle to play new messages, the rest of the MMI interaction is the same as if the user had accessed the functionality via the menu.
- By entering the missed call, inbox or messages list will switch off the reminder icon without each entry having to be viewed individually.
- In addition to the information displayed on screen, the event LED on the base will flash. By entering the Missed call, Inbox or messages list will stop the event LED flashing without each entry having to be viewed individually.
- Whilst the status information is being presented on the idle screen, when a new call is received, the appropriate CLI or answering machine screens are presented and then the handset returns to idle showing the appropriate status information.
- If the user takes a call which has caused the status information to be removed from the screen, when the call ends the display returns to idle with the new messaging icons presented and the standard soft labels presented, rather than the shortcut access.

## BATTERY INDICATIONS



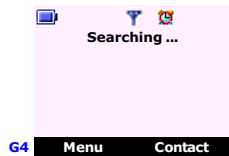
- Battery is fully charged
- Battery is partially charged
- Battery is running low
- Battery is almost discharged

## VOLUME INDICATIONS



- Volume bars are presented whenever the in-call, receiver, or ringer volume is changed (see screen G1 and G2).
- When changing your receiver volume during call, the first press of the up or down navigation button presents the volume bar on the display showing the current setting. Subsequent presses change the setting. When the minimum or maximum setting is displayed, further presses of the relevant navigation button are ignored.
- When the handset ringer volume is set to off - the display prompts "**Ringer Off**" (see screen G2) and the ringer off icon is displayed on the dashboard when the display returns to the idle screen (see screen G3).
- When the base ringer volume is set to off - the display prompts "**Ringer Off**" (see screen G2) but there will be no indication on the idle screen.

## OUT OF RANGE



- When a handset is out of range - the handset name and number is replaced by "**Searching ...**" (see screen G4).
- In addition to "**Searching ...**" the range icon on the dashboard (if the range icon is enabled) will flash along with an out of range / warning tone.
- When a handset is out of range - the user can access the handset **Contact** list, and functions local to the handset (**Calls List, Set Handset, Clock & Alarm, Reminders, Useful Numbers and Registration**).

If the user tries to access something that is resident on the base (**Set Base, Answering Machine, Text Messaging**), the display will prompt "**Not available**" for 2 seconds along with the error tone and returns to the previous screen.

## LED INDICATORS

	LEDS	LED State
<b>Handset</b>	In Use / Ringing / Events ( <b>Events:</b> Missed Calls, SMS VMWI, TAM Messages) <b>Note:</b> Missed Calls can be disabled	In Use - Steady ON Ringing - Flashing* Events - Flashing*
	<b>Base</b>	
	Power /In Use / Ringing / Events <b>Note:</b> Missed Calls and TAM Messages can be disabled	Power - Steady On In Use - Flashing* Ringing - Flashing* Events - Flashing*
	TAM	New Messages - Flashing* Answer On - Steady ON
	Charging	HS on cradle - Steady ON HS off cradle - OFF

\* Same constant flashing rate for all events

## DISPLAY CHARACTERISTICS

	Handset Display
<b>Display Size</b>	1.4 inch
<b>Display Resolution</b>	128*128 pixels
<b>Colour</b>	4K colour
<b>Number of Rows</b>	5 lines + 1 line softkeys + 1 line dashboard
<b>Font Package</b>	Copy 10_65
<b>Characters (per rows)</b>	At least 16

## HOT KEYS

	ON-HOOK	OFF-HOOK	ACTIONS
<b>Case 1</b>	✓		Long press during on-hook will dial number stored. Long/short press during calls will dial 1.
<b>Case 2</b>		✓	Long press during off-hook will dial number stored. Subsequent long presses will also dial the number stored.
<b>Case 3</b>	✓	✓	Long presses will dial the number stored whichever mode it is in.

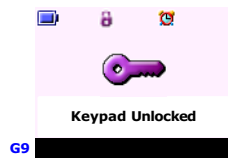
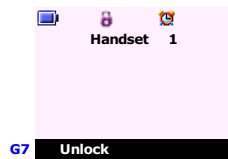
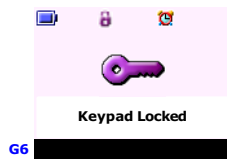
Note: A long press on KEY\_1, 2 and 3 is dialled out in off or on hook mode or both can be defined in EEPROM.

## PAGING CALL



1. To locate a missing handset press KEY\_PAGE on the base - all handsets will ring and the display will prompt "**Paging Call**".
2. To cancel the paging request - press KEY\_PAGE again on the base.
3. To stop the paging call - press **Stop** (KEY\_SOFT\_1) or any key on the handset. All handsets will stop ringing and the displays will revert to idle.

## KEYPAD LOCK



1. To activate keypad lock, press and hold KEY\_HASH - the display prompts "**Keypad Locked**" along with a confirmation tone (see screen G6).
2. When keypad lock is activated, the idle screen is presented with a small key icon on the dashboard with **Unlock** on KEY\_SOFT\_1 (see screen G7).
3. To deactivate keypad lock, press **Unlock** (KEY\_SOFT\_1) - the display prompts "**Press # to Unlock Keys**" (see screen G8).

If KEY\_HASH is not pressed within 2 seconds - the display returns to idle screen (screen G7).

If KEY\_HASH is pressed within 2 seconds - the display prompts "**Keypad Unlocked**" (see screen G9) and returns to idle screen with small key icon removed from the dashboard.

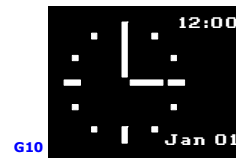
4. Incoming calls can still be answered when keypad lock is activated, either by lifting the handset from the base (if **Auto Talk** is set to ON) or pressing KEY\_TALK.

The user can interact with the in-call functionality as normal, e.g., **Quiet** option during incoming ringing, phonebook access during call. Once the call is ended and the idle screen is presented again, keypad lock is re-activated.

5. Alarm can also be stopped when keypad lock is activated. Once the alarm is stopped and the idle screen is presented again, keypad lock is re-activated.
6. Emergency Calls can be made when the keylock is on.

Up to 3 emergency number can be stored in the eeprom, each with maximum 6 digits.

## SCREENSAVER



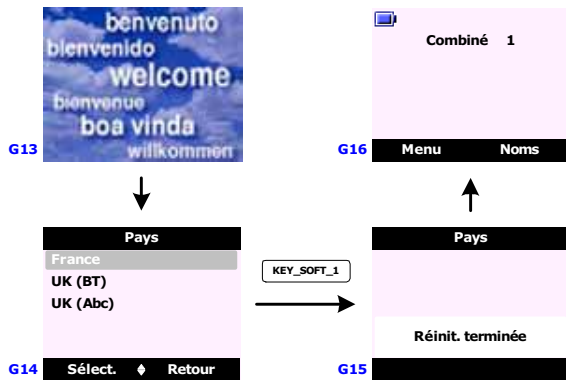
1. When Screensaver is set to **Clock** - an analogue clock together with the time and date are displayed (see screen G10). The screensaver will come on when the screen backlight times out (depending on the time set for light timeout under handset settings).
2. Screensaver should only come on in idle mode not during the call.
3. Handset screen (with backlight) will reactive when the handset is placed on the base and when it is removed from the base.
4. The minute hand ticks approximately every two and a half minute.

## ALARM CLOCK



1. When an alarm is set to ON, a small alarm clock icon will appear on the dashboard in idle (see screen G11).
2. When the alarm sounds at the preset time (see screen G12) - press **Stop** (KEY\_SOFT\_1) to stop the alarm .
3. If no button is press the alarm will continue to sound for 1 minute.
4. If the alarm is set to on **Once** - the alarm clock icon will disappear after the alarm is stopped or after the ringing times out.
5. If the alarm is set to **On Daily** or on **Mon - Fri** - the alarm clock icon will stay on the dashboard after it is stopped or after the ringing times out.
6. If the handset is off hook when the alarm is due - the small alarm on the dash board will flash and a beep is played at the handset earpiece.

## WELCOME MODE



1. A welcome mode is presented when a product is powered on for the first time and after a factory reset.  
A welcome mode enables automatic configuration of the line interface, CLI, SMS and TAM parameters stored in EEPROM / flash when the user selects their country of origin and operator.  
This feature can be hidden in EEPROM.
2. A welcome screen (see screen G13) is presented for 5 seconds before user is asked to select a country (operator).
3. On the select **Country** screen (see screen G14) as user scrolls through the country listing the menu title changes to the country native language.
4. If **Back** (KEY\_SOFT\_2) is pressed any time during country selection - the handset will return to the welcome screen (screen G13).
5. Once a country (operator) is selected. Both the handset and base will reset to enable correct settings. Further screens will be presented in that country default language setting.
6. The end user has the possibility to change the display language in the handset menu without affecting the country settings.
7. User can make and receive calls without first selecting the country and operator. However, the Welcome screen will re appear until the phone has been configured with a country setting.
8. The timing of the Welcome screen re appearing when it is not set can be defined in EEPROM.
9. Once welcome mode is set on one handset - registering additional handset will not prompt the welcome screen. Once registered, additional handset will communicate with the base to ensure correct settings is applied.
10. If the language is changed after the Welcome mode has been set and another handset is registered - the handset language is not changed but will take the default language set for the country selected.

## CALL HANDLING

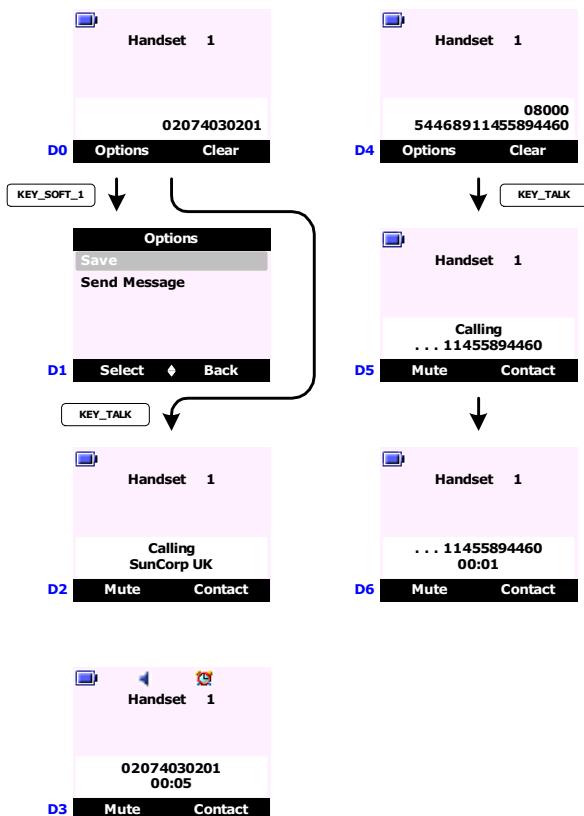
### MAKING CALLS

To make a call (**Pre Dialling**):

1. Enter your destination number and press KEY\_TALK.  
If you make a mistake, press Clear (KEY\_SOFT\_2).
2. Press KEY\_TALK to dial out.

To make a call (**Manual Dialling**):

1. Press KEY\_TALK to get the dial tone.
2. Enter your destination number.



**Note:**

- If KEY\_TALK is not pressed to dial the digits and no further digit is dialled - when the display timeouts it returns to idle with no dialled digits.
- In both manual and preparatory dialling, digits are dialled as they are entered. No cursor is presented.
- To insert a pause in pre-dial mode, press and hold KEY\_UP and a P will appear on the screen.
- Recall, \* and # can be entered with a short press on relevant key.
- During preparatory dialling, press **Options** (KEY\_SOFT\_1) - user can choose to save the number to phonebook, or, send a text message to the number dialled (see screen D1).
- In preparatory dialling the number being entered for dialling is presented over two lines. Once the in call screen is presented, only one line is used to display the number, with the three dots displayed at the beginning of the number to indicate more of the number scrolling off to the left (see screen D5 and D6).
- If the number dialled matches an entry in the phonebook the name is displayed (see screen D2).

If there is no name match, a single line of digits is displayed with three dots to the left of the number to highlight there are more digits at the beginning of the number.

- If entering digits takes the content up to the maximum of 32 allowed in the field, further CCITT button presses are ignored, along with the error tone.
- The call timer will be displayed 2 seconds after KEY\_TALK is pressed starting at 00:01 (see screen D6).
- If the call timer is replaced by other screens during a call, the timer will continue to count in the background. When the timer is displayed again, the incremented time is displayed.

To make a call in **Handsfree Mode**:

1. Press KEY\_TALK twice to get the dial tone.
2. Enter your destination number. Your call can be heard over the handset's loudspeaker.

**Note:** A small speaker icon will appear on display dashboard (see screen D3).

To make a call from local **Contact List**:

1. Press KEY\_DOWN to enter your local contact.
2. Press KEY\_UP or KEY\_DOWN to highlight the contact you want to call.
3. Press KEY\_TALK to dial out.

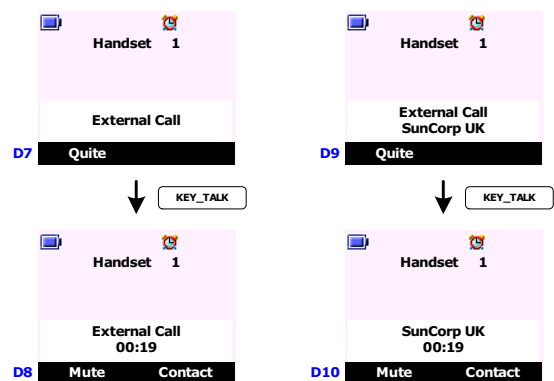
To make a call from **Calls List**:

1. Press **Menu** (KEY\_SOFT\_1) to enter the menu list. **Text Messaging** is highlighted.
2. Press KEY\_DOWN to **Calls List** menu and press **Select** (KEY\_SOFT\_1).
3. Press KEY\_UP or KEY\_DOWN to highlight the calls list you want.
4. Press KEY\_UP or KEY\_DOWN to highlight the entry you want to call.
5. Press KEY\_TALK to dial out.

### ANSWERING CALLS

To answer an incoming call:

1. Press KEY\_TALK to answer, or
2. If **Auto Talk** is set to ON you can simply pick up your handset from the cradle to take the call.



**Note:**

- During the ringing of an incoming call - it is possible to silent the ringer on your handset by pressing **Quiet** (KEY\_SOFT\_1).

If **Quiet** (KEY\_SOFT\_1) is selected on an incoming call screen (see screen D7 or D9), the handset ringer for that handset is temporarily switched off and the **Quiet** (KEY\_SOFT\_1) label is removed. The call continues to be displayed on the screen and will still be announced audibly at any other handsets and the base. Once the handset reverts to idle, the ringer is switched back on.



## CALL HANDLING (cont.)

- If the user subscribes to caller display - the handset will prompt both name and number for all incoming calls (see screen D10).
- The name or number of the call for either an incoming or external call is retained on the display in-call screen. If the user does not subscribe to caller display, "External Call" is displayed instead of the name or number (see screen D8).

### ENDING CALLS

To end a call:

1. Press KEY\_END will end current active call, or
2. Putting the handset back on the cradle will end all calls.



Note:

- When the call is ended - the call duration is displayed and this remains on the display for 5 seconds (see screen D11). It can be cleared off the screen by pressing any button.

### IN-CALL OPTIONS

To **adjust earpiece volume** during call:

1. Press KEY\_UP to increase the volume or KEY\_DOWN to decrease the volume. The volume bars remains on screen for 2 seconds before returning to the in-call screen.

Note:

- The in-call volume cannot be changed during dialling, either manual or preparatory, or when viewing the phonebook online.
- The handset and handsfree volumes share one common setting. If the user changes the volume during a call the new setting is retained.

To **mute a microphone** during call:

1. Press **Mute** (KEY\_SOFT\_1) during call to mute your handset microphone (see screen D12).
2. Press **UnMute** (KEY\_SOFT\_1) to turn the microphone back on (see screen D13).



Note:

- There should be no mute activation or deactivation indication given to the caller, i.e. no key beeps and no on hold beeps or music.

To **switch between handset and handsfree talk mode:**

1. Press KEY\_TALK during call to switch your handset to handsfree mode.
2. Press KEY\_TALK again to switch back to handset mode.

To **view your local contact list** during call:

1. To access contact list during call, press **Contact** (KEY\_SOFT\_2).

### OTHER CALL HANDLING NOTES

1. If the base is in use either on a call or by one of the other handsets, if another handset user tries to access base functionality, the display prompts "Not Available" for 2 seconds, along with the error tone before reverting to idle.
2. When one of the handsets (handset 1) is engaged on an external call, the other handsets still show the idle screen. If one of the other handsets tries to make an external call by whatever means, the handset emits an error tone and the display prompts "**Line In Use**" for 2 seconds and returns to idle (see screen B25).
3. If when a call is in progress either in handset or handsfree mode and the headset (if available) is plugged in the call is transferred to the headset and the speakers on the handset are muted. Whilst a headset call is in progress pressing KEY\_TALK to activate handsfree will be ignored.
4. With some incoming calls, if the telephone number is not available and therefore cannot be displayed - the handset may prompt one of the following:

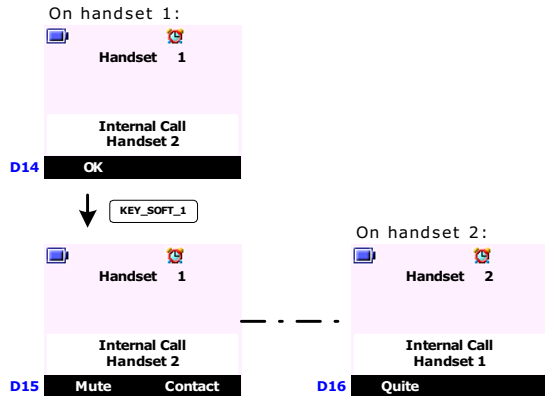
<b>Unavailable</b>	- when the number is not available
<b>Private/Withheld</b>	- when the call has withheld their number
<b>Ringback</b>	- when it is a ringback call
<b>Operator</b>	- if the call has been made via the operator
<b>Payphone</b>	- if the call is ringing from a payphone
<b>International</b>	- when it is an international number

## CALL HANDLING (cont.)

### INTERNAL CALLS

To make an internal call:

1. On your handset (handset 1), press KEY\_INT followed by the handset number you want to call.
2. Press OK (KEY\_SOFT\_1), the call attempt is made immediately.
3. "Internal Call Handset X" is displayed on handset 1 where X is the called handset number, in this case it is handset 2.



4. To answer the call on handset 2, press KEY\_TALK.
5. If you try to make an internal call to a handset which is already engaged on an internal call, or is not available, the handset will emit an error beep before returning to the standby screen.
6. If two handsets are engaged on an internal call and an external call is received, any handsets that are available will ring. The handsets involved in the internal call will present beeps in the earpiece. The caller information or name match to your local contact list will be presented on all handset displays.
7. The internal call must be ended before the external call can be taken.

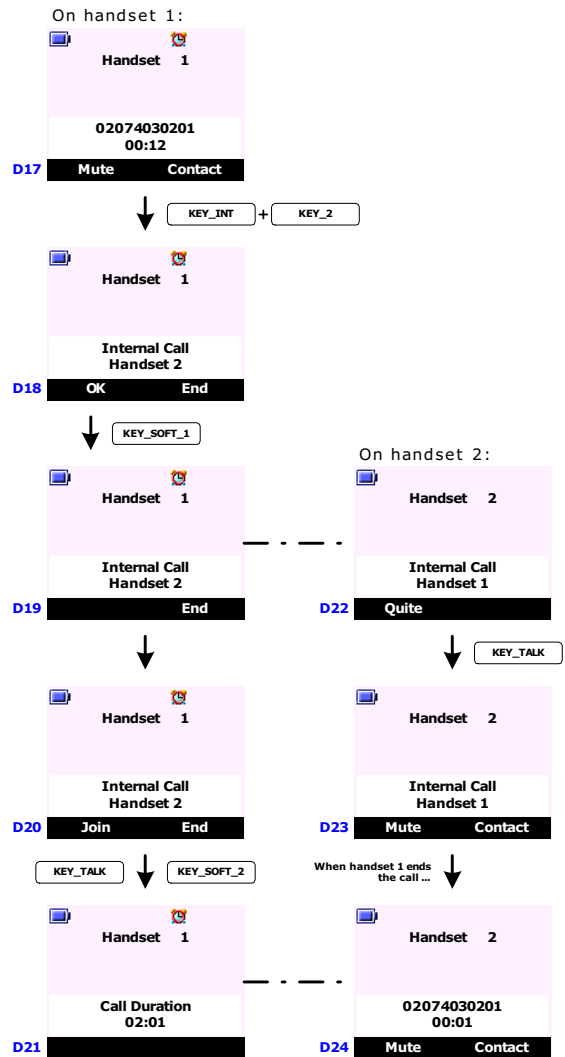
Once the internal call has ended the external call will be presented on the handset again for the user to take the external call.

### TRANSFER CALLS

To transfer a call to another handset:

1. On your handset (handset 1), press KEY\_INT followed by the handset number you want to call.
2. Press OK (KEY\_SOFT\_1), the call attempt is made immediately.  
Or press Back (KEY\_SOFT\_2) to cancel the call request.
3. "Internal Call Handset X" is displayed on handset 1 where X is the called handset number, in this case it is handset 2.
4. To answer the call on handset 2, press KEY\_TALK.
5. Once handset 2 has answered the call, the softkeys on handset 1 will change to Join (KEY\_SOFT\_1) and End (KEY\_SOFT\_2).
6. If the user replaces the handset in the base/cradle, both calls are ended. If the external call was an incoming call, this will cause the call to be presented (as an incoming call) again.
7. To toggle between external and internal call on handset 1, press KEY\_INT.
8. To transfer the call to handset 2, on handset 1 press End (KEY\_SOFT\_1) or KEY\_END.

The call is transferred to handset 2.



9. When a handset transfers a call to another handset, the CLI or any contact name/number information from the sending handset is transferred to the receiving handset that is now controlling the external call.

## CALL HANDLING (cont.)

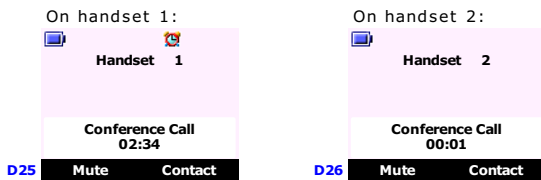
### CONFERENCE CALLS

To start a conference call:

1. On your handset (handset 1), press KEY\_INT followed by the handset number you want to call.
2. Press **OK** (KEY\_SOFT\_1), the call attempt is made immediately.  
Or press **Back** (KEY\_SOFT\_2) to cancel the call request.
3. "**Internal Call Handset X**" is displayed on handset 1 where X is the called handset number, in this case it is handset 2.
4. To answer the call on handset 2, press KEY\_TALK.
5. Once handset 2 has answered the call, the softkeys on handset 1 will change to **Join** (KEY\_SOFT\_1) and **End** (KEY\_SOFT\_2).
6. Press **Join** (KEY\_SOFT\_1) or long press on **KEY\_HASH** on handset 1 to join the two calls.

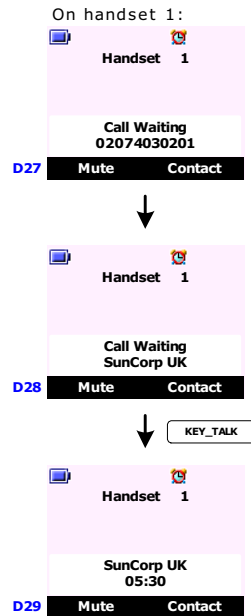
Handset 1 will display "**Conference Call**" follow by the call timer initiated from the first call (see screen D25).

Handset 2 will display "**Conference Call**" follow by the call timer initiated from the time the call is answered.



### CALL WAITING

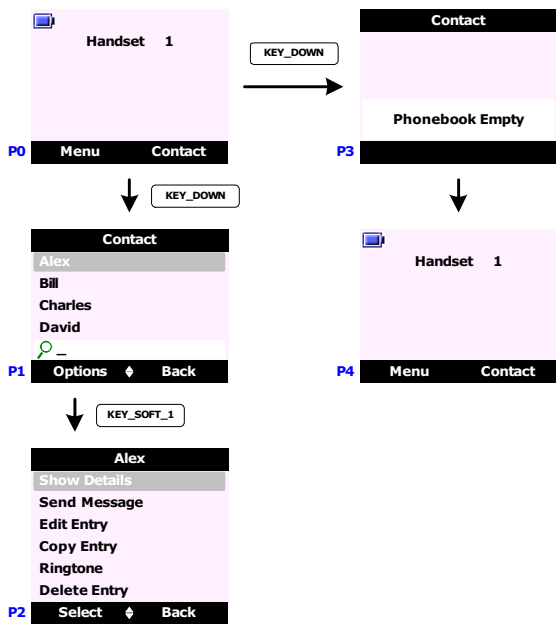
1. While you are engaged on an external call if another call arrives - you will hear a beep sound and the display is presented as screen D27 and D28. If the number matches an entry in the contact list - the name will alternate with the number on the display.
2. To swap between two calls, press KEY\_R (or KEY\_R + KEY\_2 depending on your network) to speak to second caller while your first call is put on hold.



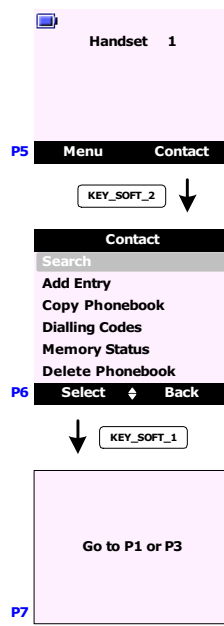
3. When second call is answered - the caller's number (or name if the number matches an entry in the phonebook) is displayed together with the call timer of the first call on hold.
4. If KEY\_END is pressed at any time - the line reverts back to the first caller on hold.

# PHONEBOOK/CONTACT

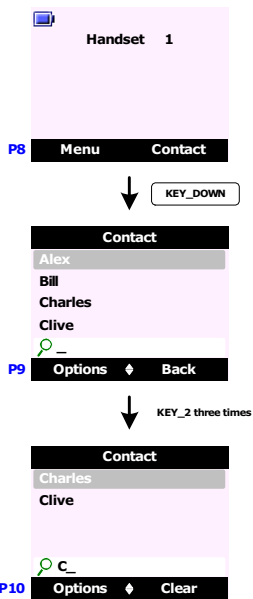
To access your contact list from idle display:



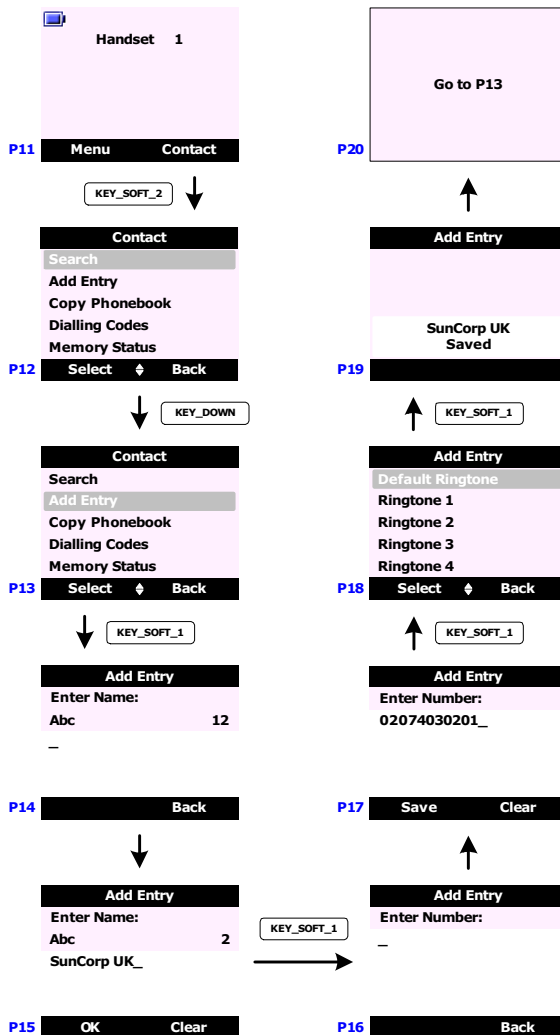
To access your contact list menu:



## Search Contact



## Add Entry

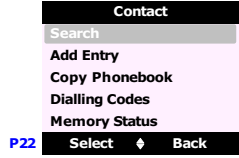


**PHONEBOOK/CONTACT (cont.)**

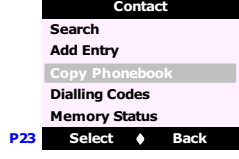
**Copy Phonebook (To Handset)**



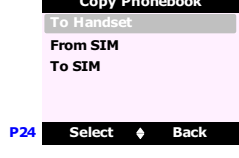
KEY\_SOFT\_2 ↓



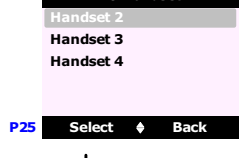
KEY\_DOWN ↓



KEY\_SOFT\_1 ↓



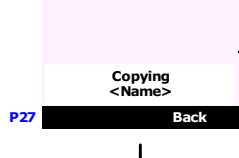
KEY\_SOFT\_1 ↓



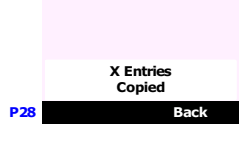
KEY\_SOFT\_1 ↓



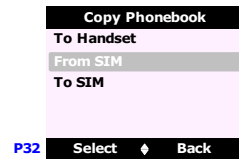
↓



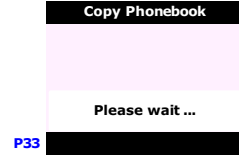
↓



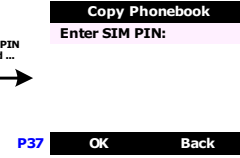
**Copy Phonebook (From SIM)**



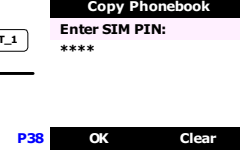
KEY\_SOFT\_1 ↓



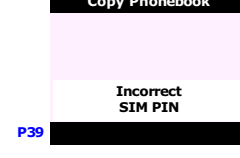
If SIM is PIN protected ...



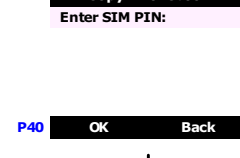
↓



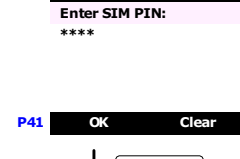
KEY\_SOFT\_1 ↓



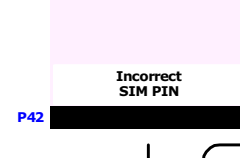
↓



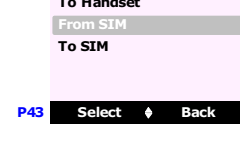
↓



KEY\_SOFT\_1 ↓



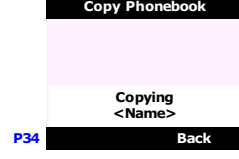
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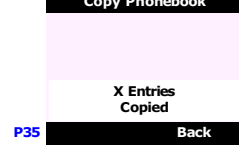
KEY\_SOFT\_1 →



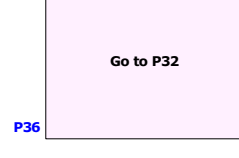
If SIM is not PIN protected ...



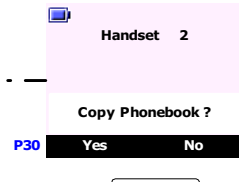
KEY\_SOFT\_1 ←



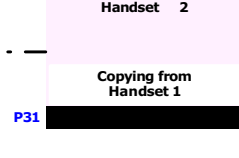
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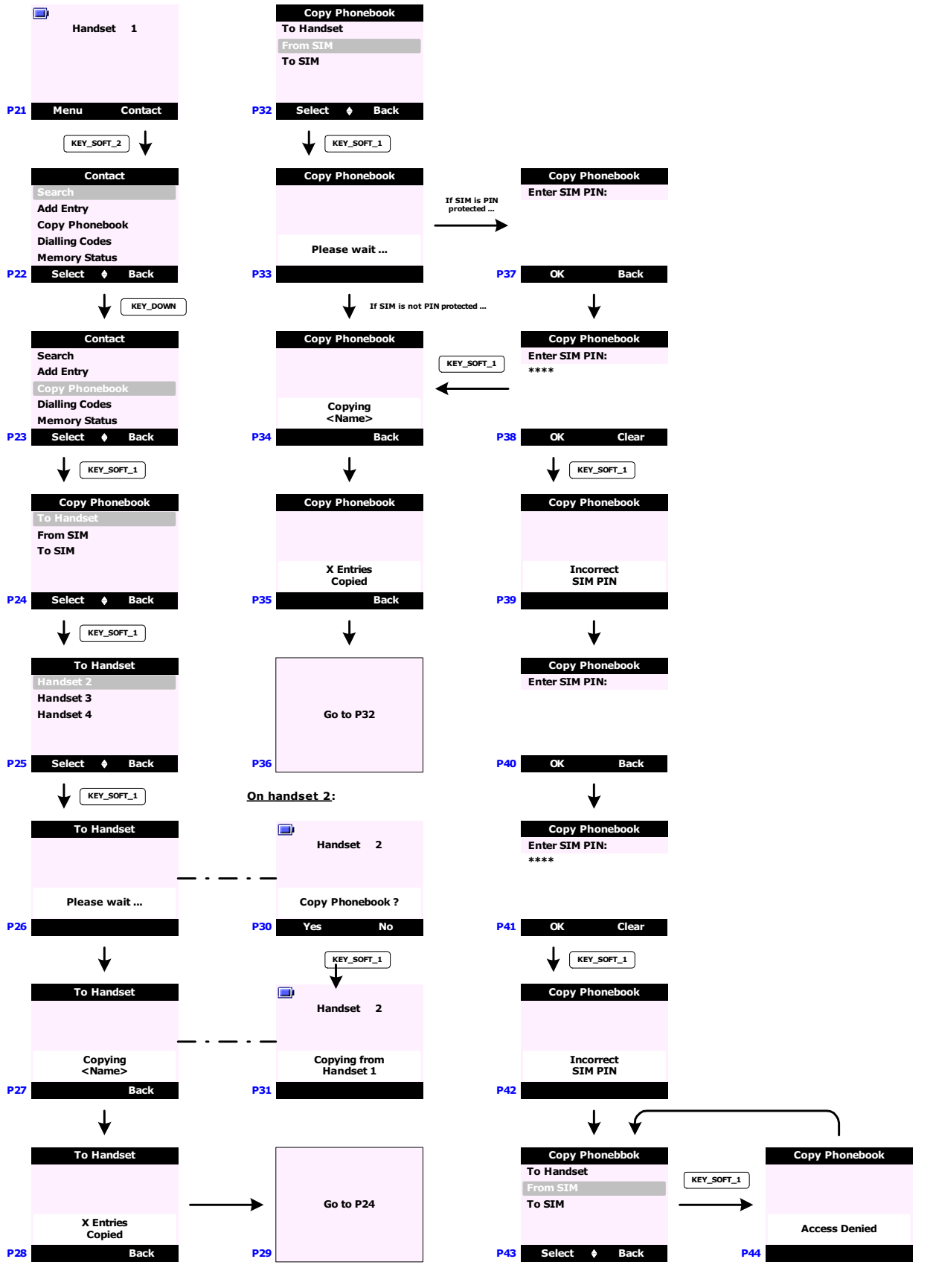
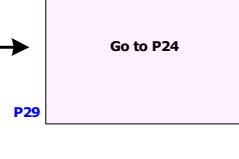
**On handset 2:**



KEY\_SOFT\_1 ↓

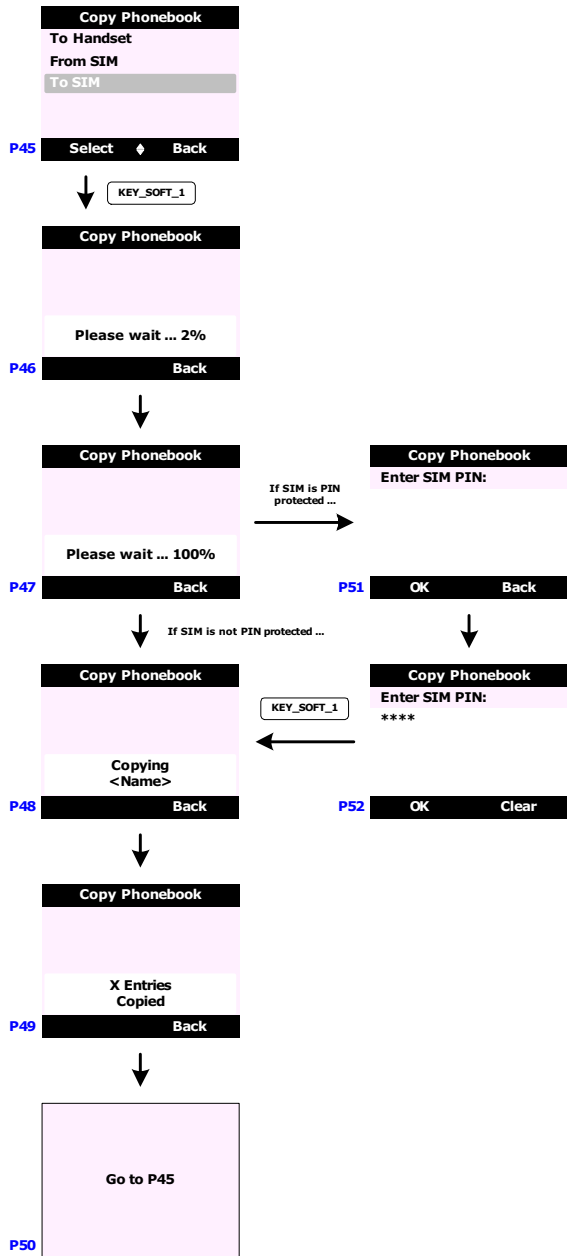


↓

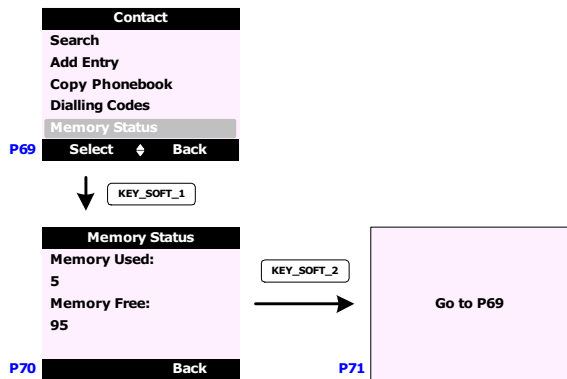


**PHONEBOOK/CONTACT (cont.)**

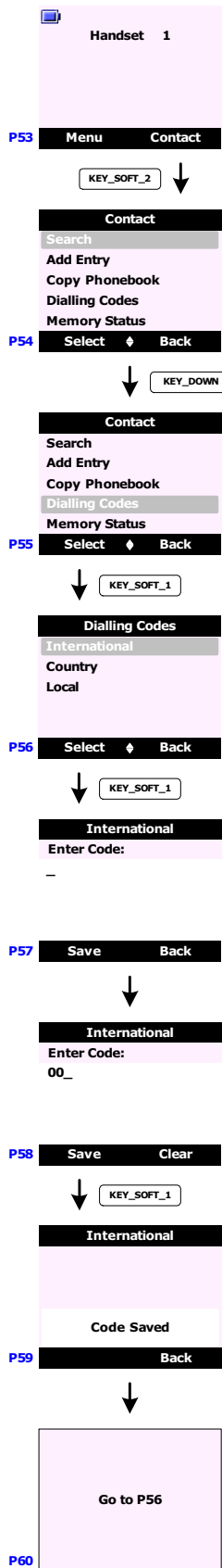
**Copy Phonebook (To SIM)**



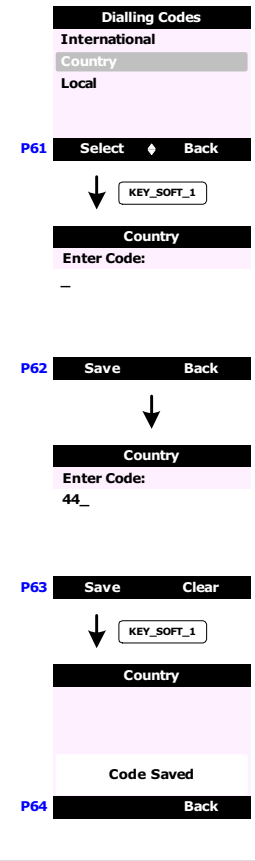
**Memory Status**



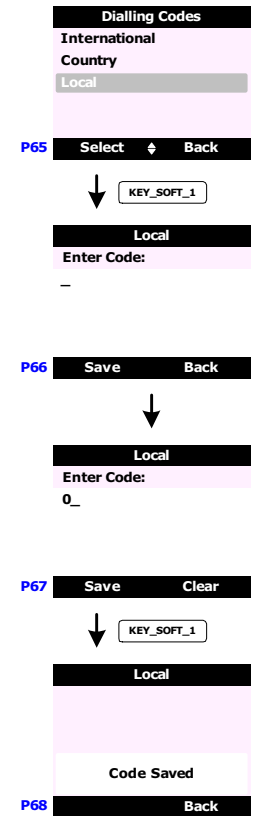
**Dialling Codes (International)**



**Dialling Codes (Country)**

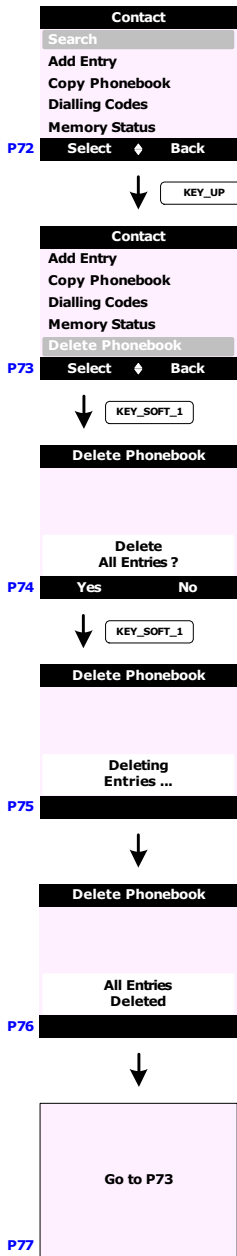


**Dialling Codes (Local)**

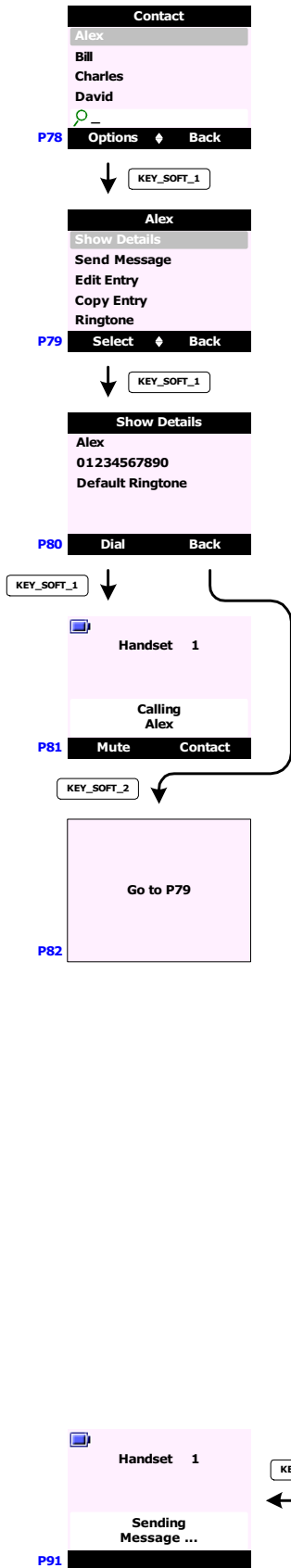


**PHONEBOOK/CONTACT (cont.)**

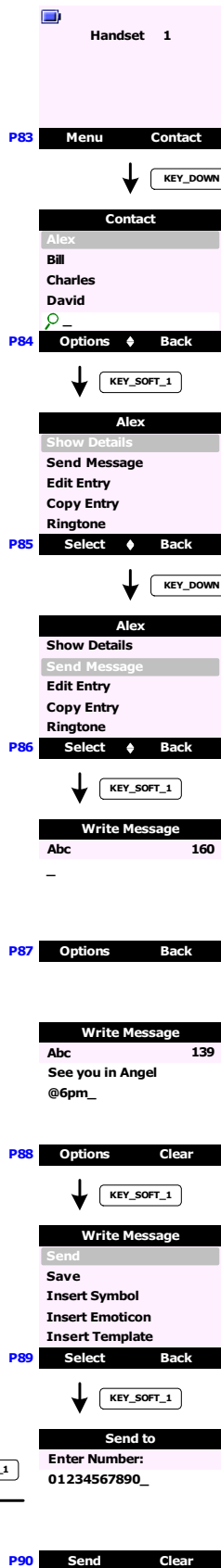
**Delete Phonebook**



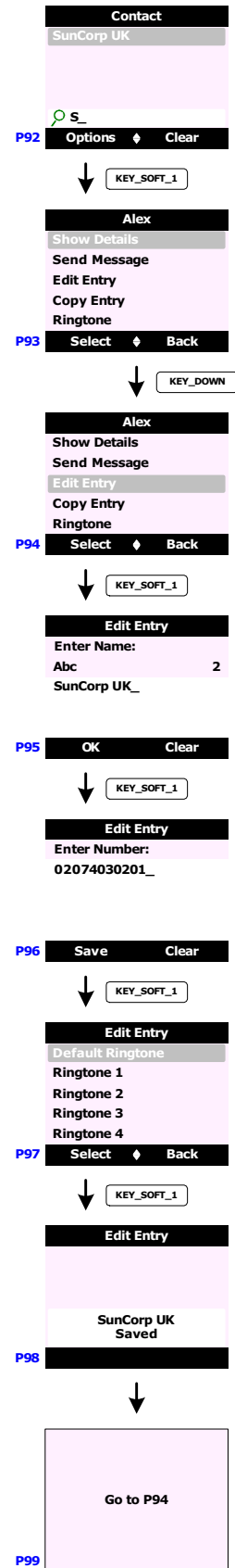
**Show Details**



**Send Message**

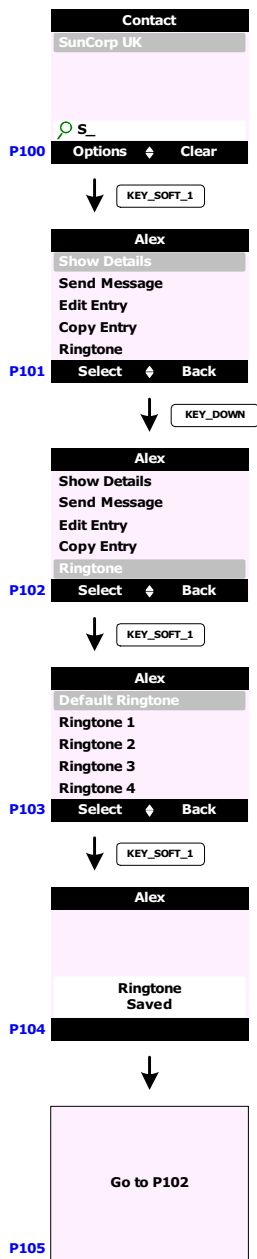


**Edit Entry**

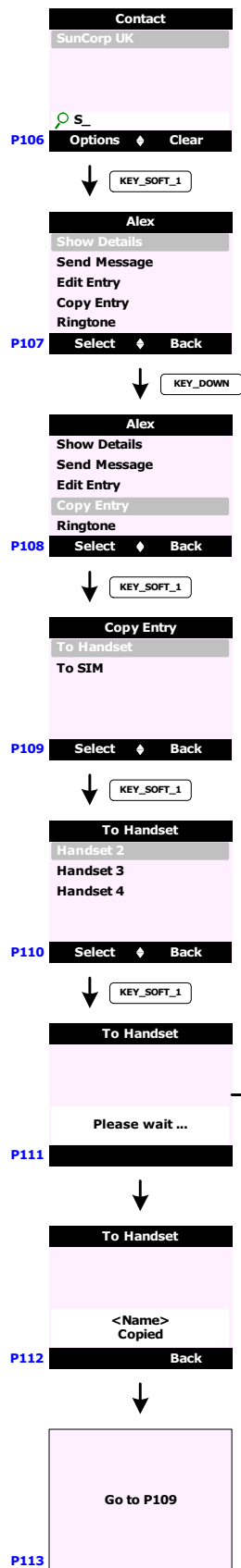


**PHONEBOOK/CONTACT (cont.)**

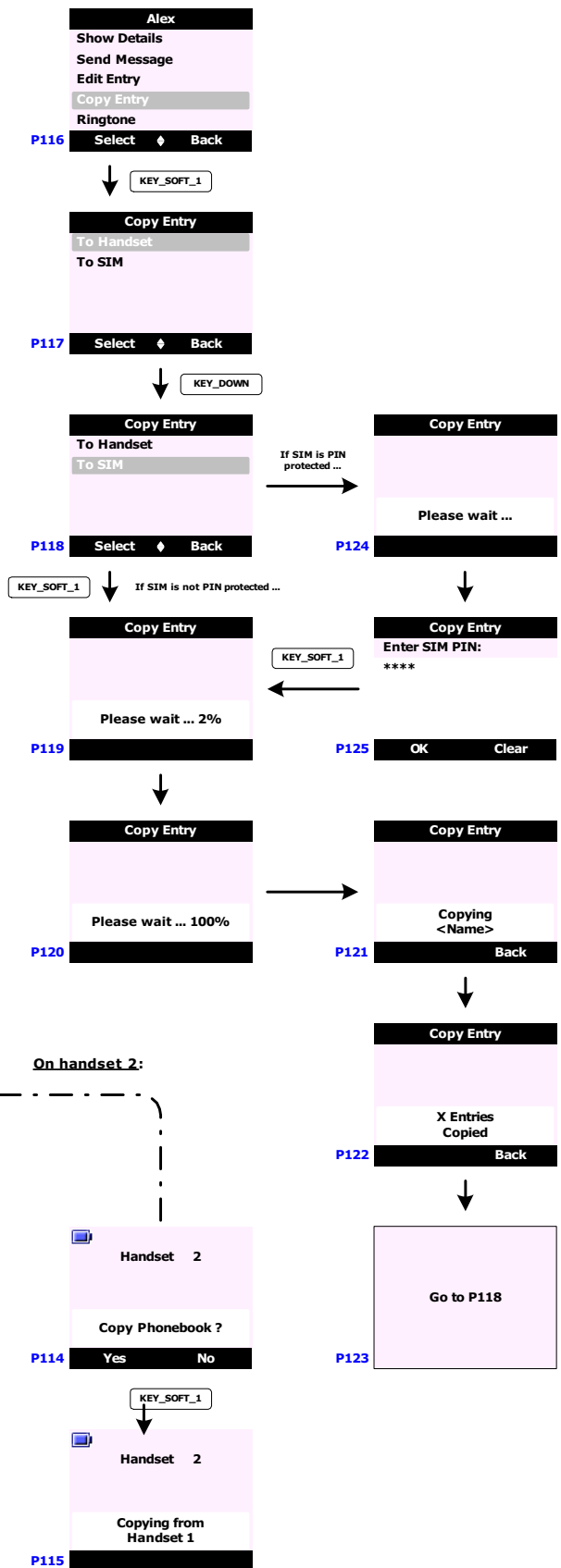
**Ringtone**



**Copy Entry (To Handset)**



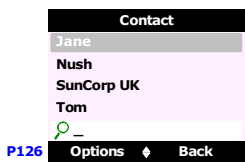
**Copy Entry (To SIM)**





**PHONEBOOK/CONTACT (cont.)**

**Delete Entry**



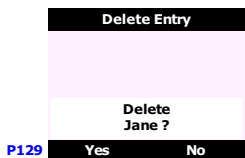
KEY\_SOFT\_1



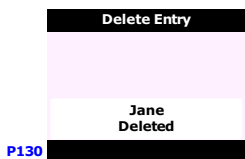
KEY\_UP



KEY\_SOFT\_1



KEY\_SOFT\_1



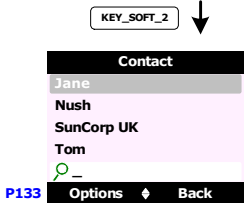
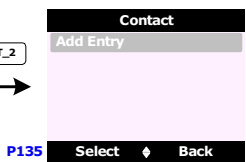
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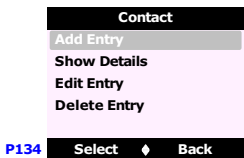
**Access to Phonebook during call:**



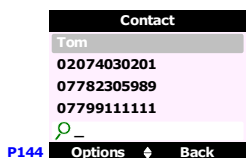
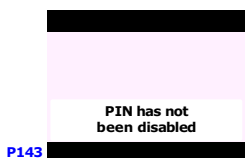
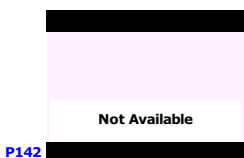
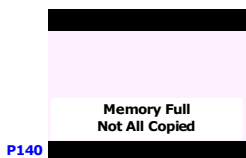
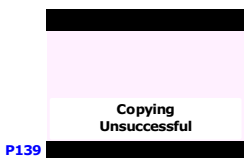
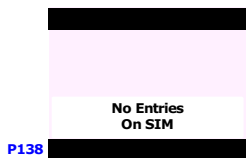
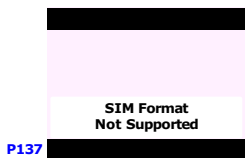
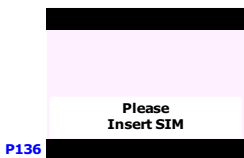
KEY\_SOFT\_2



KEY\_SOFT\_1



**Additional screens:**



## PHONEBOOK/CONTACT (cont.)

### Notes:

1. Up to 250 entries can be stored on the handset depending on the handset EEPROM size.
2. Each contact consists of a name of up to 12 characters and a number up to 24 digits.
3. Both a name and a number have to be entered for an entry to be saved. **Save** (KEY\_SOFT\_1) is not presented until there is content in the name and number field.
4. The user can enter the same name more than once in the phonebook but can only enter the number once. If the user tries to enter a number that has already been stored he will hear an error beep.
5. When names are entered, the first character is upper case and then the case switches to lower. The user can manually change the case using KEY\_HASH. If the user changes the case it remains in the case selected until they save the entry and return to idle.
6. **Recall** can be stored in the number of a phonebook entry using a short press on KEY\_R.
7. **Pause** can be stored in the number of a phonebook entry using a long press on KEY\_UP.
8. During a call, the user can access the contact list by pressing **Contact** (KEY\_SOFT\_2).

If there are entries when phonebook is accessed during conversation - only **Add Entry, Show Details, Edit Entry** and **Delete Entry** options are available (see screen P134).

9. If the phonebook is empty when it is accessed during conversation - only **Add Entry** option is available (see screen P135).
10. Characters entered on the search bar should follow the character table specified in "(SunCorp) Character\_table\_v11\_03NOV2006" file.

Suppose there are the following names:

Ben
Bill
Cecily
David
Malcolm
Mel
Parag

If the user types in **L** (for **L**isa) as there is no entry with **L** the cursor will go to the next available entry - in this case it will go to **M**alcolm.

If the user wants to search for **M**ichael - when I press KEY\_6 once for **M** the cursor will move to **M**alcolm and now if the user types in the second character "i" (press KEY\_4 three times) it should go to **P**arag (assuming there is no further entry after Parag).

If the user wants to search for **S**ue - the cursor will stay at Parag (assuming there is no further entry after Parag).

11. When accessing an empty phonebook names list from idle (press KEY\_DOWN from idle) - the display prompts "**Phonebook Empty**" (see screen P3).
12. If **Send Message** is selected, this is a shortcut to the "Write Message" functionality in Text Messaging. The number is pre-entered in the "Send To" field.
13. When copying an entry or phonebook to another handset, the entry is added to the existing phonebook on the new handset.
14. SIM card transfer can only work when the base is in idle. If the base is in use when the handset tries to access SIM copy feature - the display prompts "**Not Available**" (see screen P142).
15. If the user selects Copy to Handset feature when there is only one handset registered to the base - the handset displays "**Not Available**" for 2 seconds and returns to the previous screen (see screen P142).
16. While copying an entry or phonebook between handsets, other handsets registered to the base can still make external calls or internal calls to each other. Any attempt to make an internal call to one of the handsets during the copying - the handset will prompt "**Not Available**" along with the error tone (see screen P142).
17. While the SIM is being copied, other handsets can still make internal calls to each other. If a handset tries to make a call to the handset carrying out the copy - the handset will prompt "**Not Available**" along with the error tone (see screen P142).
18. When copying an entry or phonebook to and from SIM card if SIM card is not detected in the SIM drawer - the display prompts "**Please Insert SIM**" (see screen P136).
19. When copying an entry or phonebook to and from SIM card if SIM card format is not supported - the display prompts "**SIM Format Not Supported**" (see screen P137).
20. The handset must be able to handle SIM PIN code up to 8 digits.
21. When copying the SIM card, the SIM PIN is only requested when the SIM has the PIN activated. If it is not activated, it is not requested.
22. It must be possible to disable SIM PIN feature. In other words, if a SIM card is PIN protected it must be possible to alert the user that the "**PIN has not been disabled**". In this case the user has to disable SIM PIN via his GSM.
23. When copying an entry or phonebook to and from SIM card if SIM card PIN code is entered incorrectly - the handset prompts "**Incorrect SIM PIN**" and returns to Enter SIM PIN: screen.
24. If SIM PIN is entered incorrectly for the second time - the handset prompts "**Incorrect SIM PIN**" and returns to previous menu options screen.  
If the user tries to access SIM copy feature again - the display prompts "**Access Denied**" (see screen P44).
25. If there are no entries on the SIM card when the handset is initiating the copy from SIM - the display prompts "**No Entries On SIM**" (see screen P138).
26. During SIM card check and buffering of SIM card entries - the display prompts "**Please wait ...**" or "**Please wait ... 2%**".
27. If the user attempts to copy an entry from one handset to another and the phonebook on the receiving handset is full - the receiving handset prompts "**Phonebook Memory Full**" for 2 seconds and then returns to idle (see screen P141).  
The sending handset prompts "**Copying Unsuccessful**" for 2 seconds and then returns to the previous screen (see screen P139).
28. When copying an entry or phonebook to another handset and the receiving handset is not available (out of range or phonebook memory full) - the sending handset prompts "**Copying Unsuccessful**" and returns to the previous screen (see screen P139).
29. If the user attempts to save a number to the phonebook from the calls lists or a text message and the phonebook is full - the display prompts "**Phonebook Memory Full**" for 2 seconds and returns to the previous screen (see screen P141).
30. If the memory becomes full during copying phonebook from SIM - the display prompts "**Memory Full Not All Copied**" (see screen P140).
31. When copying an entry or phonebook to another handset - only registered handsets, except the handset being used are listed.
32. Ringtones assigned to phonebook entries are handset specific and it is acceptable for the same entry to have different tones assigned to it on different handsets.
33. While two handset are being used to copy directories, if another handset begins to make an external call, the copy process is interrupted. The failed copy screen (see P139) is presented and then the handsets involved in the copy revert to idle. Any entries already copied are retained.
34. If an incoming call is received while an entry or phonebook is being copied from one handset to another, or from SIM, or to SIM, the copy is abandoned and the incoming call is presented. Those entries, which have already been copied at the time of the interruption, are retained.
35. When copying an entry or phonebook - the copy process can be cancelled at any time by pressing **Back** (KEY\_SOFT\_2) or KEY\_END. Any entries already copied are retained.

## PHONEBOOK/CONTACT (cont.)

### Notes:

36. Some SIM cards can save up to 20 characters in the name field and some 12 characters.

If the maximum character allowed for the name field on the handset is 12 - then the first 12 characters are copied.

The same applies to the number field.

37. There is no indication that a SIM is inserted, but during phonebook transfer the Power In Use / Event LED will flash.

38. During the transfer it is not possible to use the base functionality.

All base button presses are ignored. The SIM copy can only be stopped at the controlling handset.

39. When copying entries from SIM to phone, if a SIM contact contains only the number fields - the number field will be copied to both the name and number field on the handset. The unnamed contacts will appear at the end of the list (see screen P144).

40. It is permissible for duplicate entries with the same name NOT number to be stored as a result of SIM copying (or even with manual input). In other words, it is possible to stored two or more entries with the same contact name.

41. Multiple SIM card transfer can be carried out. When copying SIM card in either direction, entries are appended to the existing list of contacts, rather than overwriting the contents.

Contact with same name but different number will be copied.  
Contact with different name and different number will be copied.  
Contact with same name and same number will not be copied.  
Contact with different name but same number will not be copied.

42. **Dialling Codes** feature allows correct conversion of SIM contacts beginning with international codes.

For example, a contact saved on SIM with +442074030201

where: (+) is the international code, and  
(44) is the country code

On the DECT phone, the settings will be:

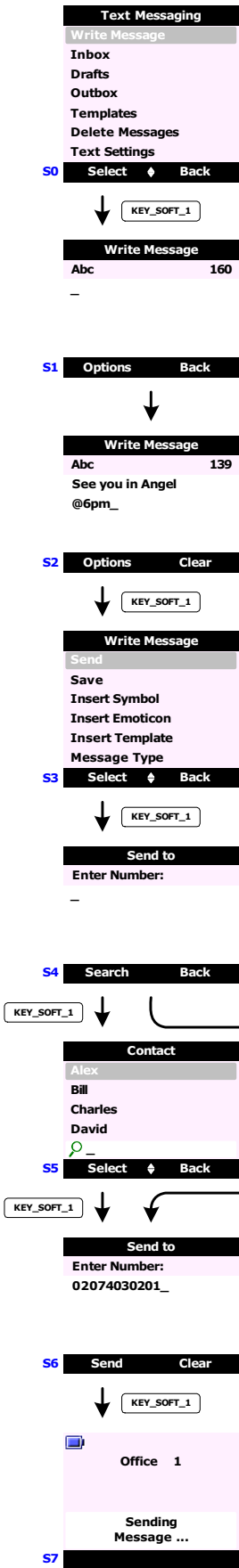
International Code = 00  
Country Code = 44  
Local Code = 0

After SIM copy, + and 44 will be stripped off and replaced by the local area code (0) - the entry copied will then appear on the handset as 02074030201.

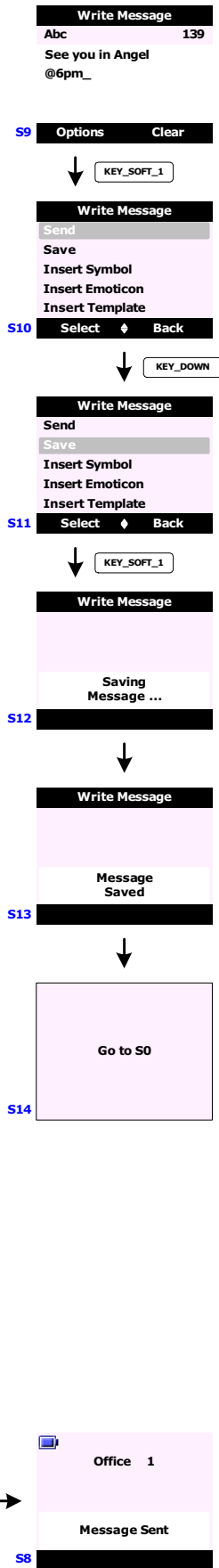
This feature can be hidden in EEPROM.

# TEXT MESSAGING

## Write Message (Send)



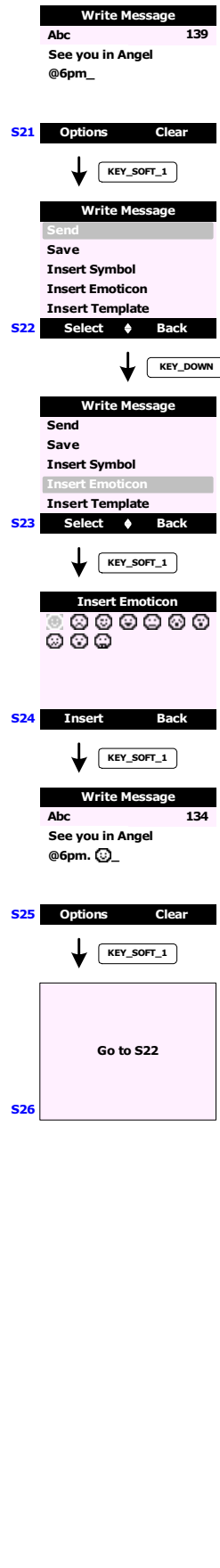
## Write Message (Save)



## Write Message (Insert Symbol)



## Write Message (Insert Symbol)

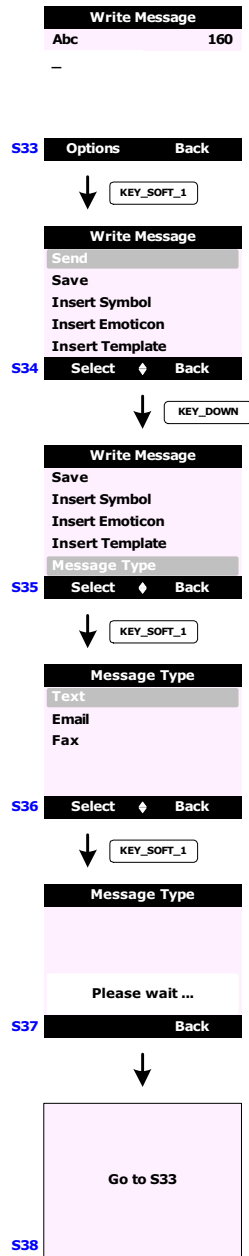


**TEXT MESSAGING (cont.)**

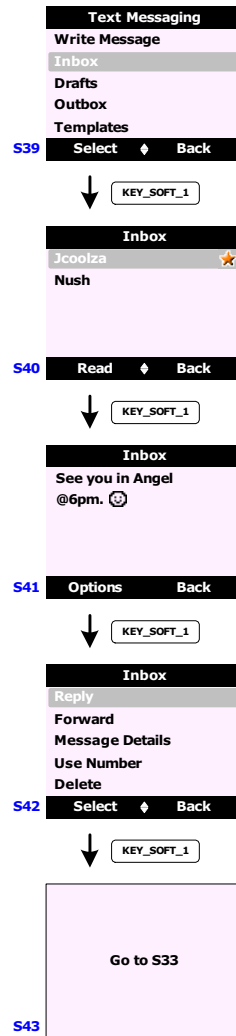
**Write Message (Insert Template)**



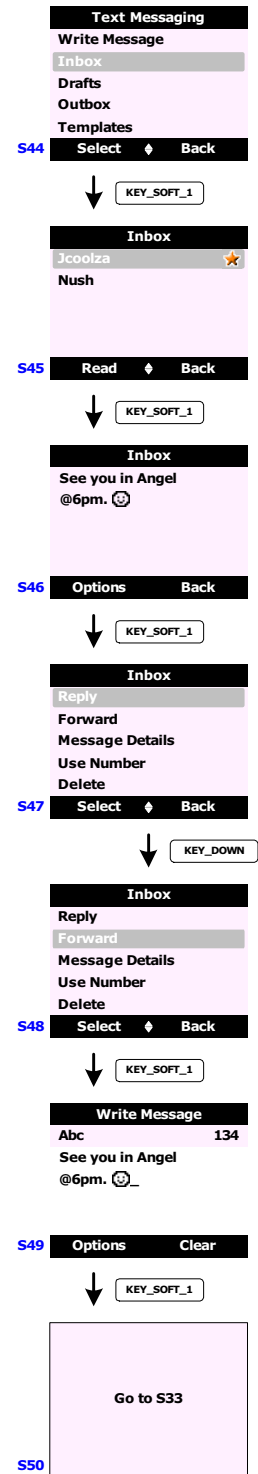
**Write Message (Message Type)**



**Inbox (Reply)**

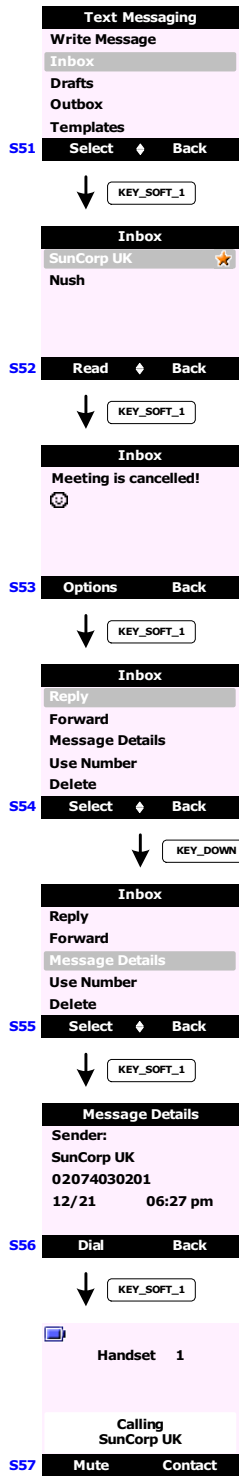


**Inbox (Forward)**

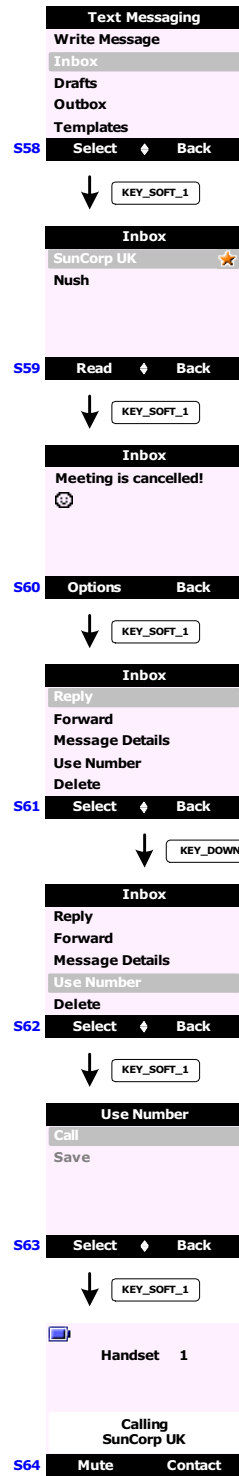


**TEXT MESSAGING (cont.)**

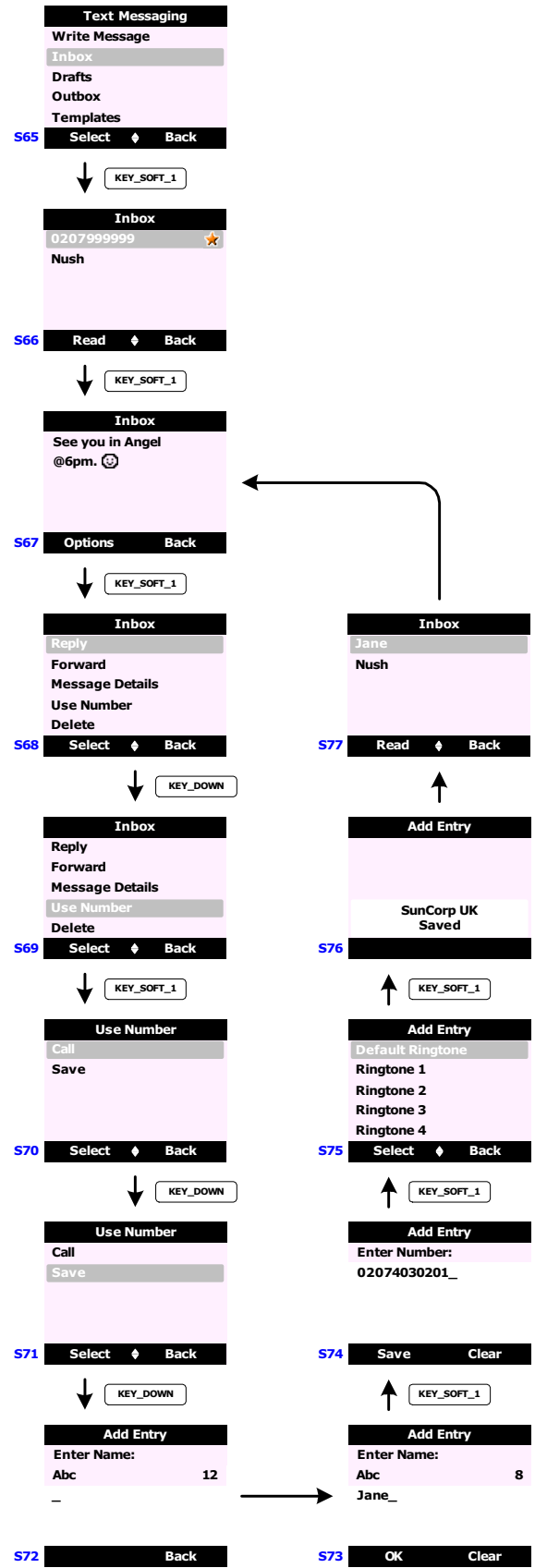
**Inbox (Message Details)**



**Inbox (Use Number - Call)**

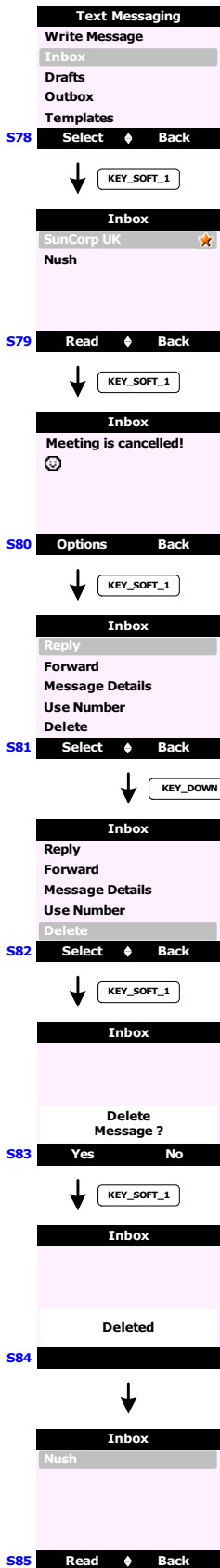


**Inbox (Use Number - Save)**

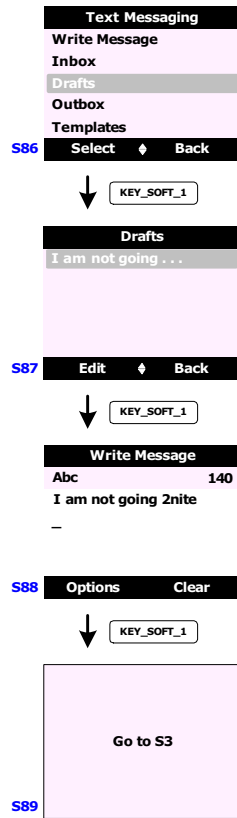


**TEXT MESSAGING (cont.)**

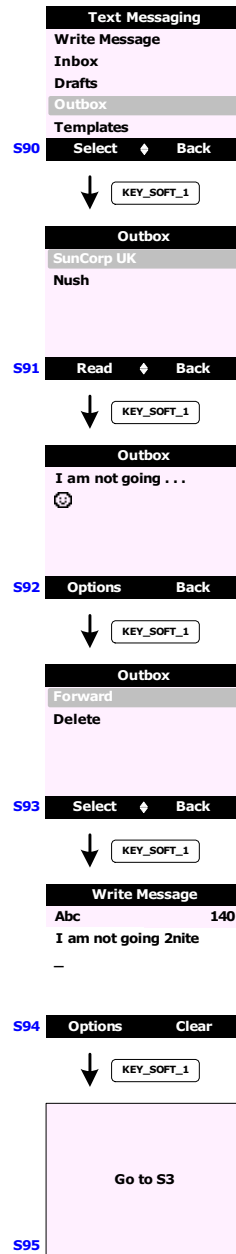
**Inbox (Delete)**



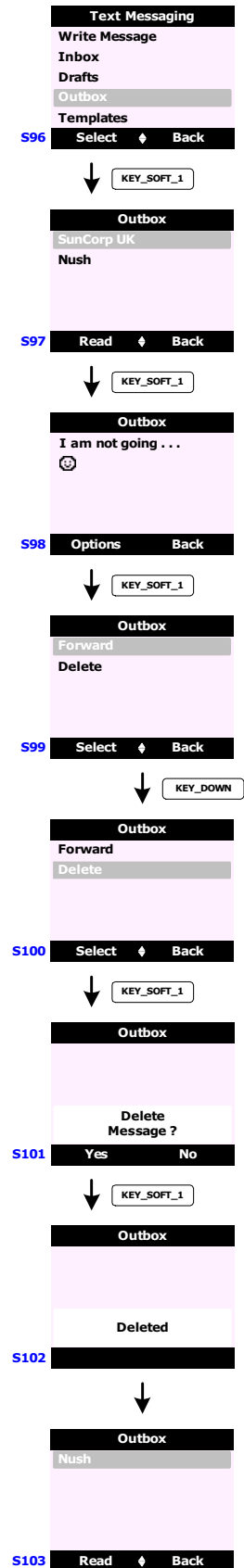
**Drafts**



**Outbox (Forward)**

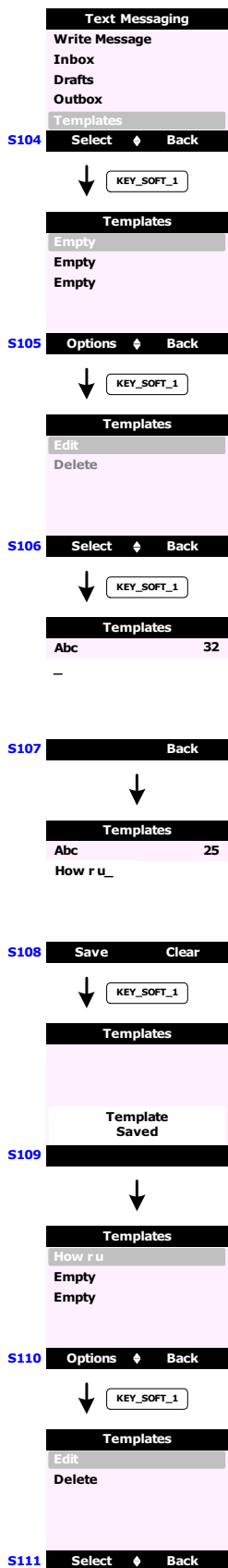


**Outbox (Delete)**

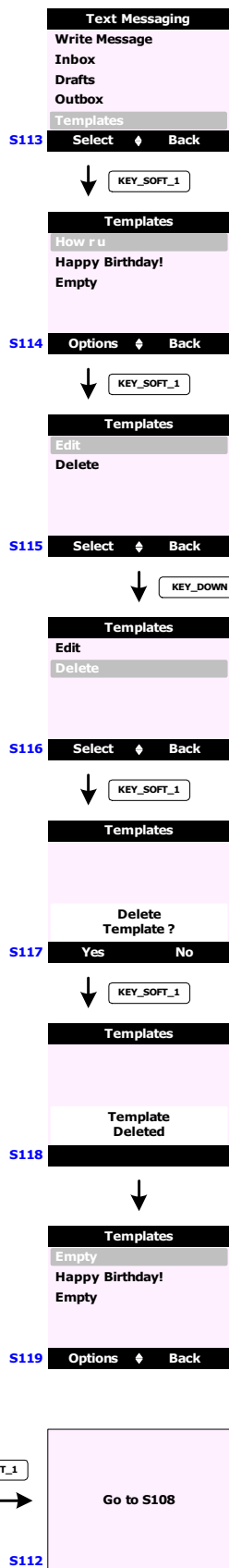


**TEXT MESSAGING (cont.)**

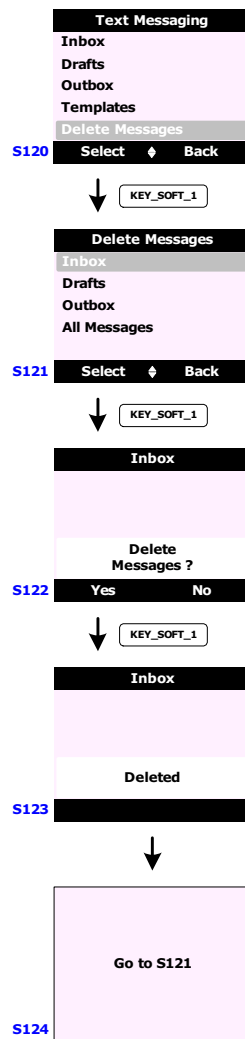
**Templates (Edit)**



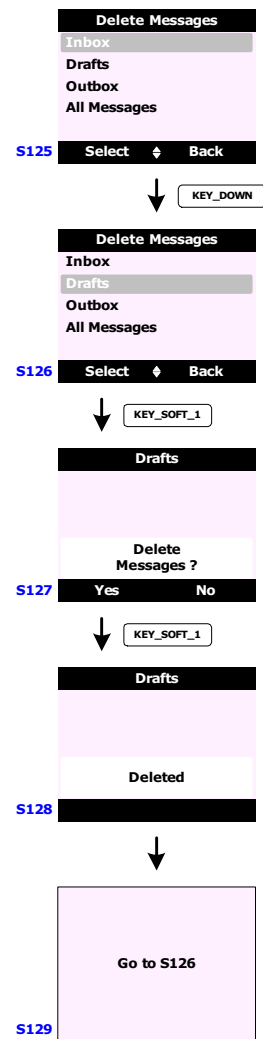
**Templates (Delete)**



**Delete Messages (Inbox)**



**Delete Messages (Drafts)**



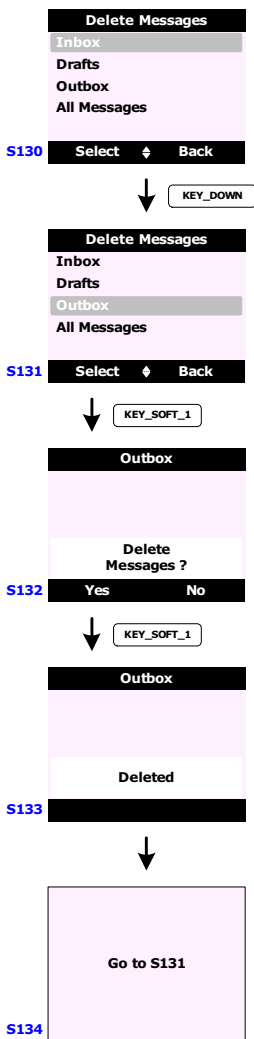
KEY\_SOFT\_1

S112

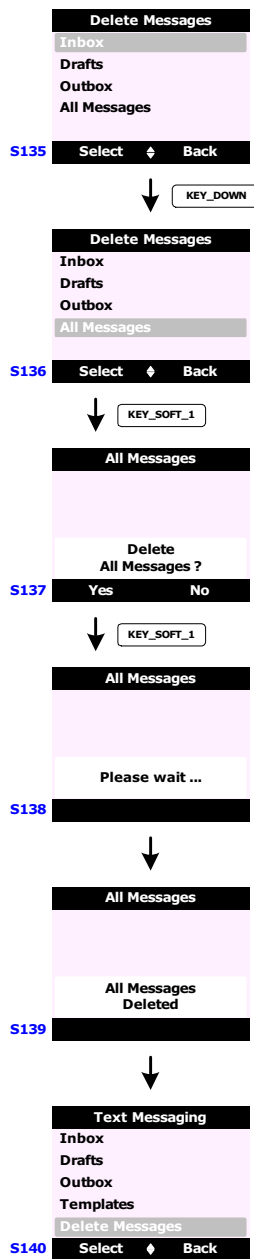


**TEXT MESSAGING (cont.)**

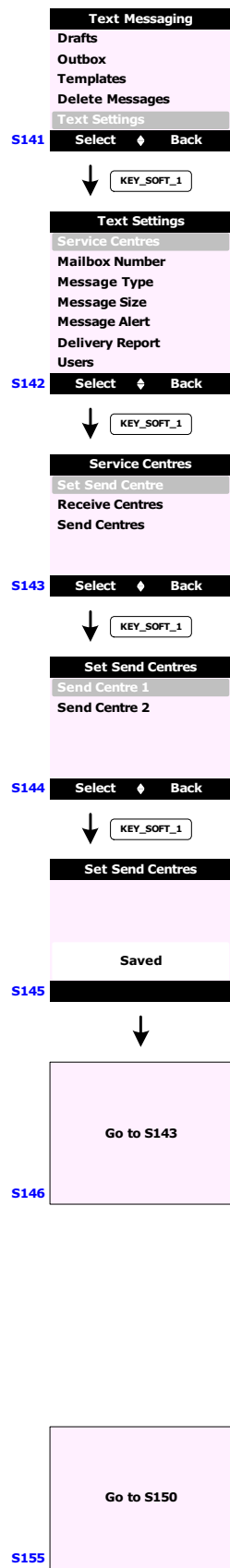
**Delete Messages (Outbox)**



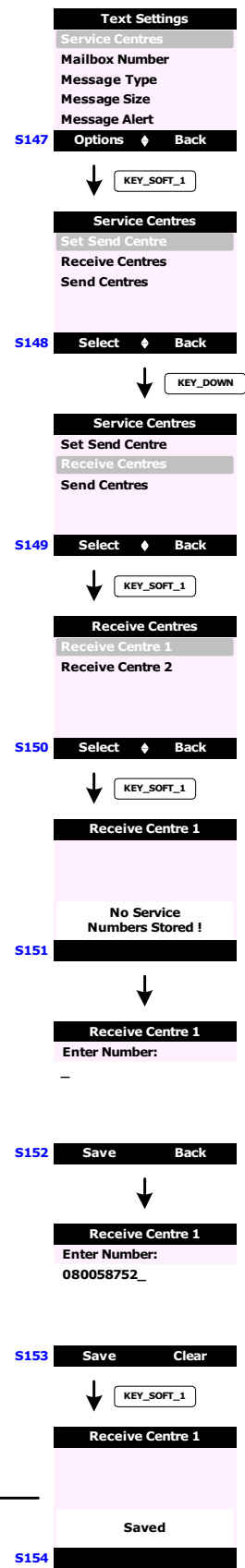
**Delete Messages (All Messages)**



**Text Settings (Set Send Centre)**

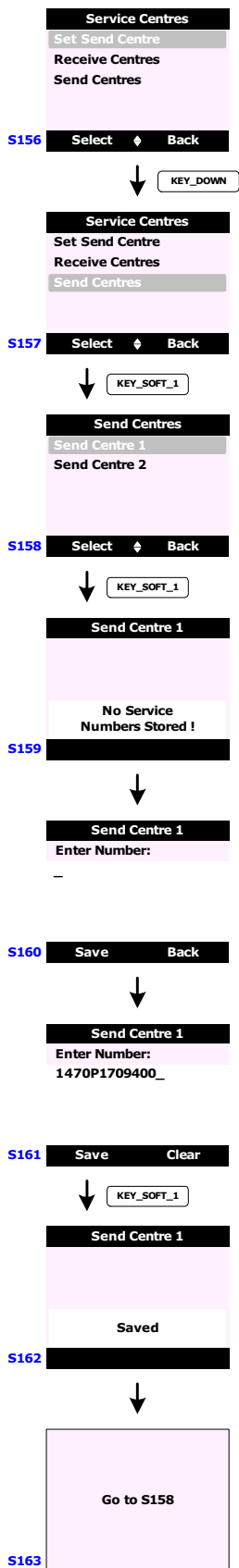


**Text Settings (Receive Centres)**

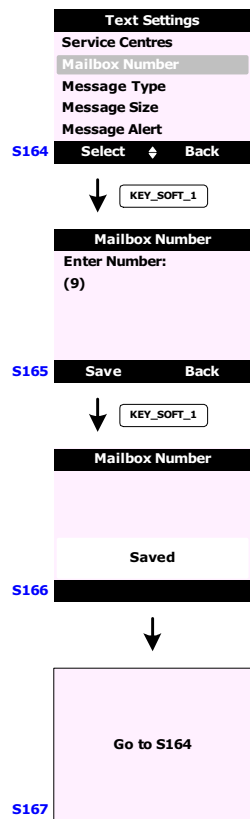


**TEXT MESSAGING (cont.)**

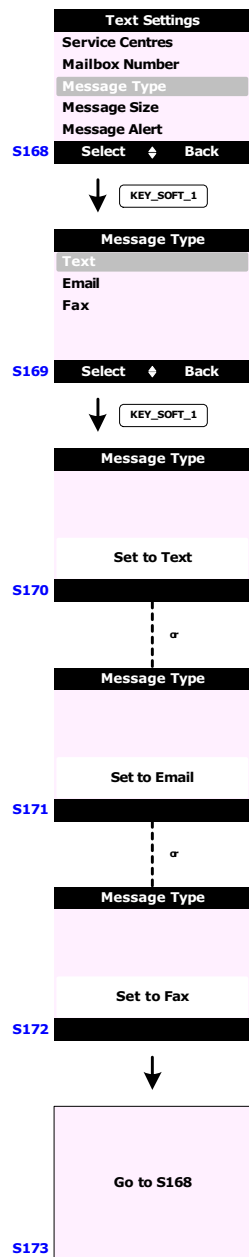
**Text Settings (Send Centres)**



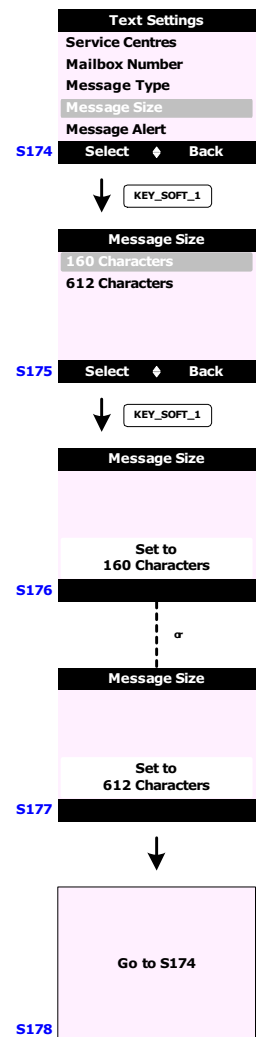
**Text Settings (Mailbox Number)**



**Text Settings (Message Type)**

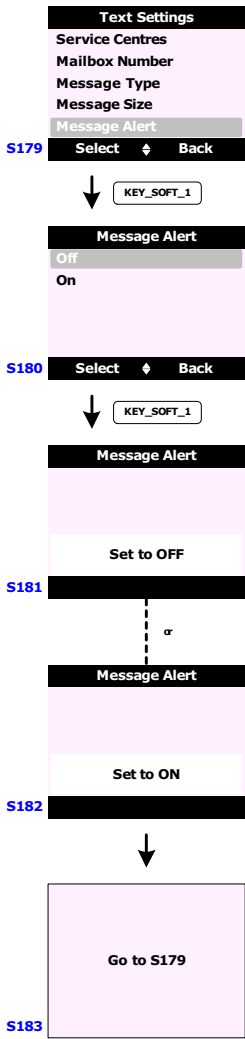


**Text Settings (Message Size)**

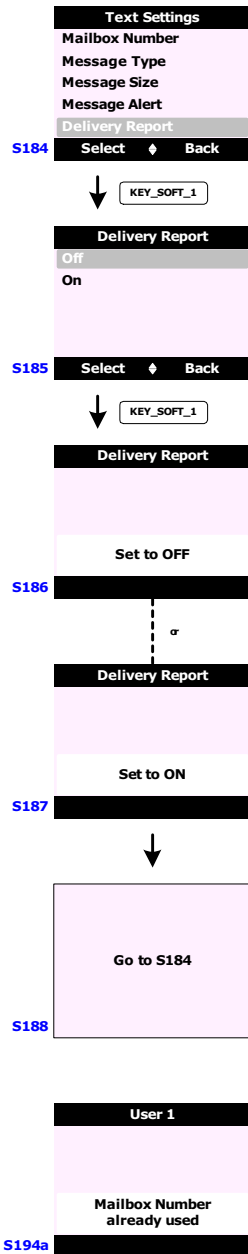


**TEXT MESSAGING (cont.)**

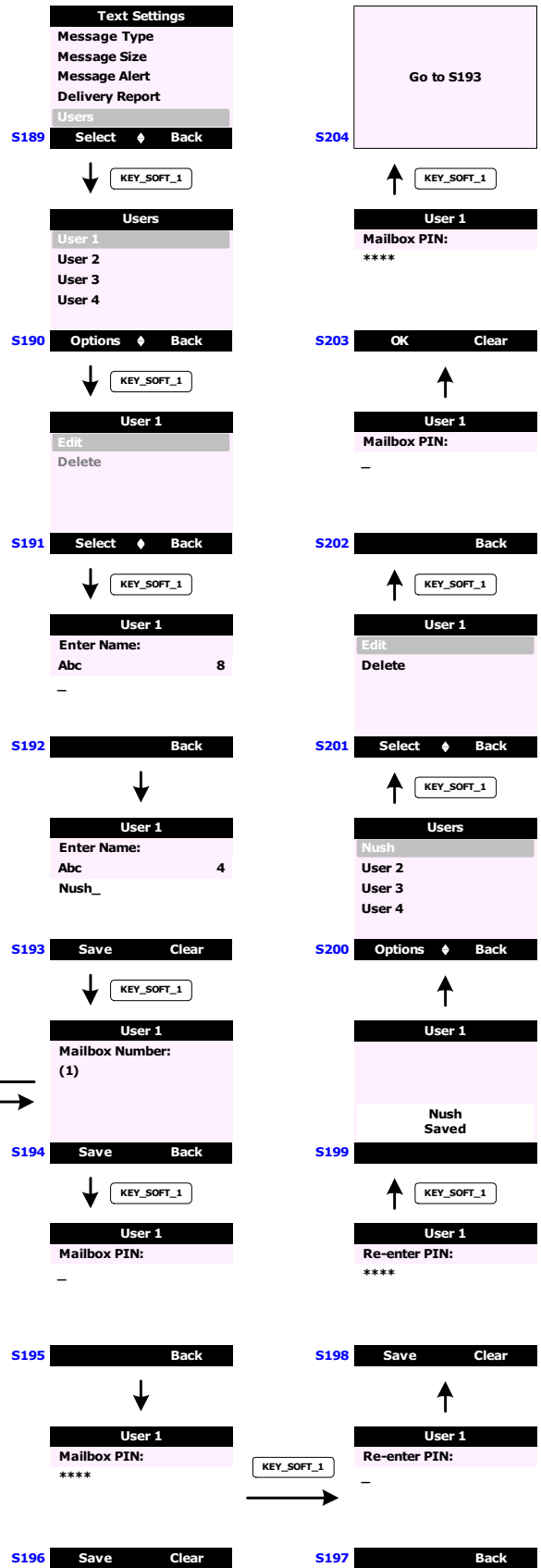
**Text Settings (Message Alert)**



**Text Settings (Delivery Report)**

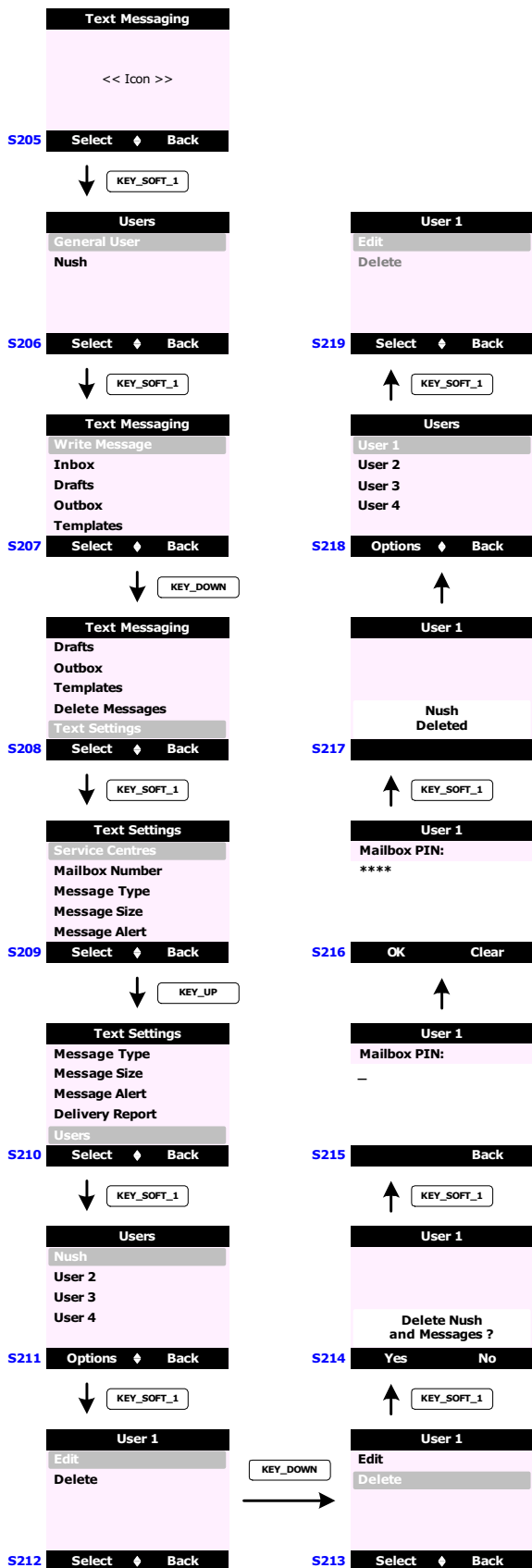


**Text Settings (Edit User)**

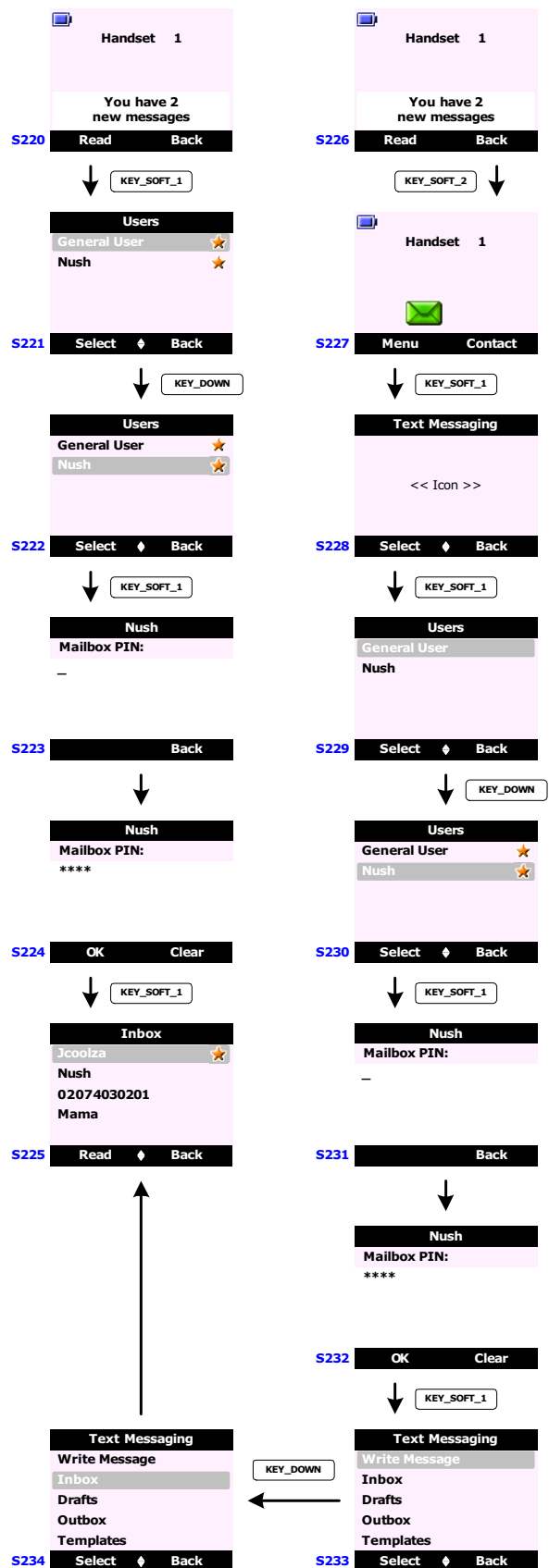


# TEXT MESSAGING (cont.)

## Text Settings (Delete User)

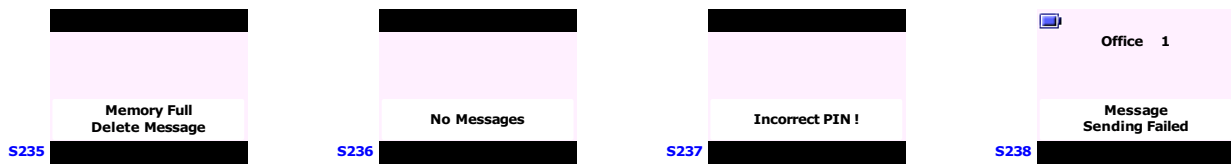


## Personal Messages received



## TEXT MESSAGING (cont.)

### Additional screens:



1. A total of 50 short messages can be stored across all users inbox and outbox. The memory is fully dynamic over all users inboxes.
2. Only 5 messages can be stored across all user outboxes. New sent messages replace old sent messages.
3. Saved message is stored in the **Drafts** folder. Only 1 draft message can be stored per each mailbox.  
When editing a message in **Drafts** folder and **Save** is selected again from options list - the message saved is the most recently saved message.
4. If SMS mailboxes are full when **Write Message** is selected - the display prompts "**Memory Full Delete Messages**" for 2 seconds and returns to the previous screen (see screen S235).
5. When accessing empty folders (**Inbox**, **Drafts**, or **Outbox**) - the display prompts "**No Messages**" for 2 seconds and returns to the previous screen (see screen S236).
6. When accessing the **Inbox**, the most recent message is highlighted at the top of the screen (see screen S40).  
Pressing KEY\_DOWN will move backwards chronologically through the messages.  
Pressing KEY\_UP will move forward chronologically. When the most recent message is displayed, pressing KEY\_UP will display the oldest message.
7. Only new / unread messages will trigger the new SMS reminder icon on the idle screen (see screen S227).
8. New messages are marked with a yellow star (see screen S40). Once a message has been read, its "new message" tag will be removed.
9. When browsing the **Inbox**, if the sender's number matches an entry in the phonebook, the name is displayed. If there is no name match, the number of the sender is displayed.
10. There is no looping within a message, i.e. when reading (or writing) a message and the bottom of the message is reached, pressing KEY\_DOWN again will not display the beginning of the message. The user has to use KEY\_UP to scroll back to the beginning of the message.
11. When writing a message, if **Clear** (KEY\_SOFT\_2) is pressed and held for 1.5 seconds, all text to the left and right of the cursor will be deleted.
12. When a message is sent, a copy of it is stored in the **Outbox**.
13. When manually entering a recipient number it can be displayed over two lines. The maximum number of digits which can be entered is 24.
14. When an emoticon is included in a message it is displayed within the text in its graphical format rather than just the punctuation symbols. The graphical representation of emoticons is also shown in incoming messages rather than punctuation.
15. When forwarding a message, if the original message is longer than four lines, the last four lines of the message are displayed on the first three lines of the message screen and the cursor is displayed after the last character in the message.
16. Concatenation is supported. When a long message is received it will be included in the **Inbox** as a single message and will be displayed as a single message.
17. **Message Size** menu can be hidden in EEPROM.
18. If the user sets the Message Size to 612 characters the counter will start from 612 and reduces as more characters are entered.
19. If the user sets the Message Size to 160 characters the counter will start from 160 and reduces as more characters are entered.
20. When the counter is 0 entering a further character will receive an error tone.
21. If the message is longer than 160 characters it will automatically be sent as linked messages. Up to 4 messages can be linked together allowing up to 612 characters to be sent.
22. Word wrap is used when receiving messages.
23. When a message is sent the product goes online to send the message and "**Sending Message...**" is displayed on the sending handset (see screen S7).  
Once the message has been successfully sent - the display prompts "**Message Sent**" for 2 seconds and returns to the idle display.
24. If the attempt to send the message fails, the display prompts "**Message Sending Failed**" for 2 seconds and then the handsets revert to the relevant screen (see screen S238).
25. If the line is in use when the product attempts to send the message, the display prompts "**Line In Use**" for 2 seconds and returns to the relevant screen. The unsent message is stored in the **Outbox** folder.
26. If the user is part way through writing a message when an incoming call is received, the incoming call is presented. If a sub-address / mailbox user is writing a message, the message should be stored to handset temporary buffer so the next time user enters **Write Message** - he will see his last typed message.
27. If the user is part way through writing a message and the handset times out - the message is automatically saved in the **Drafts** folder. The timeout when writing a message is 30 seconds.

## TEXT MESSAGING (cont.)

28. The emoticons included on the product are:



Press KEY\_UP and KEY\_DOWN to highlight the emoticons you want and press Insert (KEY\_SOFT\_1) to insert selected emoticon.

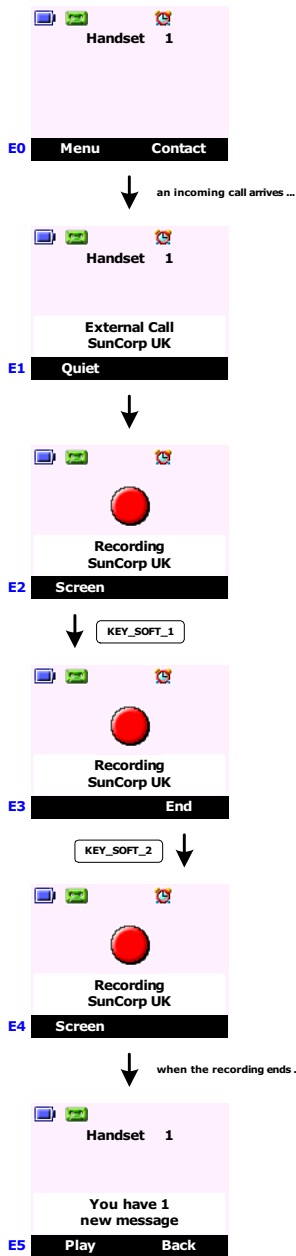
29. When an emoticon is selected from the table it is shown in the message. If the user enters the same combination of symbols manually, they are converted to the emoticon.
30. The maximum length of a template is 32 characters. In the list view, if the entire template can be displayed on a single line it is all displayed. If there is more than can be displayed on a single line, 3 dots are displayed at the end of the template to indicate more of the message scrolling off to the right.
31. Once a template is deleted - it is replaced by **Empty**.
32. When an "Empty" template is selected, its **Delete** option is greyed out (see screen S106).
33. When inserting a template, if "Empty" template is selected - the handset will present an error beep.
34. All templates are reset to default when the product is reset.
35. When saving SMS sender number, if the number already exists in the phonebook - **Save** option will be greyed out (see screen S63).
36. When accessing the phonebook to send a text message to a number stored, if the phonebook is empty, the display prompts "**Phonebook Empty**" for 2 seconds and returns to the previous screen.
37. If **Save** is selected on screen X70 when the phonebook memory is full - the display prompts "**Phonebook Memory Full**" for 2 seconds and return to the previous screen (see screen S70).
38. When saving a number, the name and a number field have to be entered for a Phonebook entry to be saved. Save is not presented until there is content in the name and one of the number fields.
39. **Service Centres** menu can be hidden in EEPROM.
40. There are 2 send and 2 receive centre numbers (one of each of the send and receive numbers can be hidden in EEPROM).
41. Service centre numbers shall not be stored in the calls list or the redial list.
42. The send and receive centre number can be up to 24 digits long.
43. SMS service centre numbers can be set to empty.
44. If the product is reset, the default service centre numbers are restored.
45. If the user has deleted both service centre numbers and then selects **Set Send Service** from **Text Settings** menu, or selecting an "empty" send or receive centre number - the display prompts "**No Service Numbers Stored !**" for 2 seconds and returns to the previous screen.
46. **Message Type** menu can be hidden in EEPROM.
47. If message type is Fax - when writing the message, in the write message field:
- (1) type in email destination address
  - (2) add a SPACE
  - (3) write your email content
- For example:  
[abc@email.com](mailto:abc@email.com) hello! how are you?
- The content before the first SPACE will be used as the email destination address.
- (4) to send the message, press **Options** (KEY\_SOFT\_1)
  - (5) **Send** is highlighted, press **Select** (KEY\_SOFT\_1) to send the message.
48. Email messages will not be saved in the **Outbox**.
49. **Delivery Report** menu can be hidden in EEPROM.
50. **Users** menu can be hidden in EEPROM.
51. SMS multi-users can add up to 4 users. Therefore, there can be 5 mailboxes; one public / general mailbox + 4 users' mailboxes.
52. SMS username can be up to 8 characters long.
53. When using password protection on SMS user mailboxes, once four digits have been entered on the "Mailbox PIN" entry screen any further button presses are ignored and the error tone is presented. If the user attempts to press **Save** (SOFT\_KEY\_1) before 4 digits have been entered the button press is ignored and the error tone is presented.
54. If the user mailbox PIN is incorrectly entered at any time - the display prompts "**Incorrect PIN**" for 2 seconds and returns to the previous screen (see screen S237).
55. User 1, 2, 3 and 4 have mailbox numbers 1, 2, 3 and 4 pre-assigned to them by default. The general mailbox number is pre-set to 0.
56. When the user changes the user's mailbox number, only unassigned mailbox numbers between 0-9 can be used. If the mailbox number entered is in use by another user - the display prompts "**Mailbox Number already used**" and returns to enter mailbox number screen (see screen S194a).
57. Each personal mailbox has an **Inbox**, **Outbox** and **Drafts** folder which are password protected (if switched on).
58. Any user accounts created are reset to default when the product is reset.
59. If a user account is deleted, any stored text messages associated with that account are also deleted.

## TEXT MESSAGING (cont.)

60. If an SMS is received with incorrect sub-address - after checking the FSK data and determining that the SMSC number is correct but the subaddress that has been sent is incorrect, subsequent ring bursts will be audible.
61. User master reset via Set Base menu will not clear SMS data including users' mailboxes.  
Full factory reset (press and hold KEY\_STAR) while inserting the battery) will clear all SMS data including users' mailboxes.

# ANSWERING MACHINE

## TAM Screening



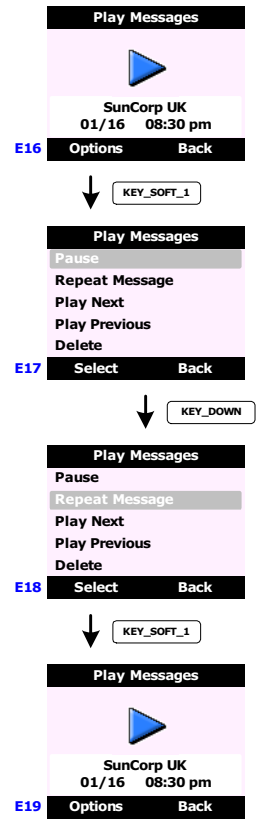
## Play Message



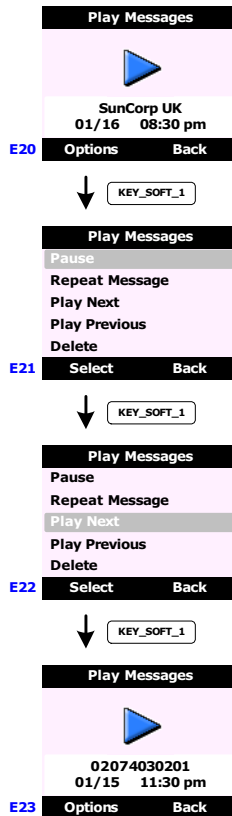
## Play Message (Pause)



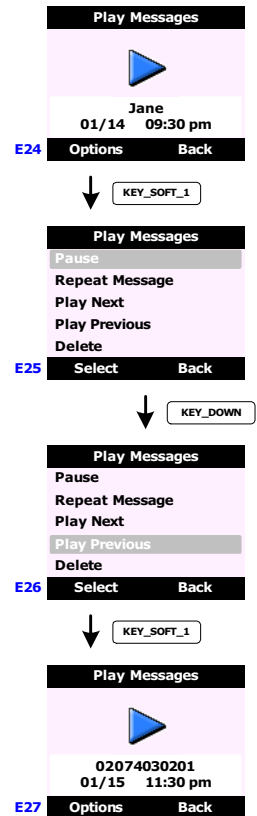
## Play Message (Repeat Message)



## Play Message (Skip Forward)



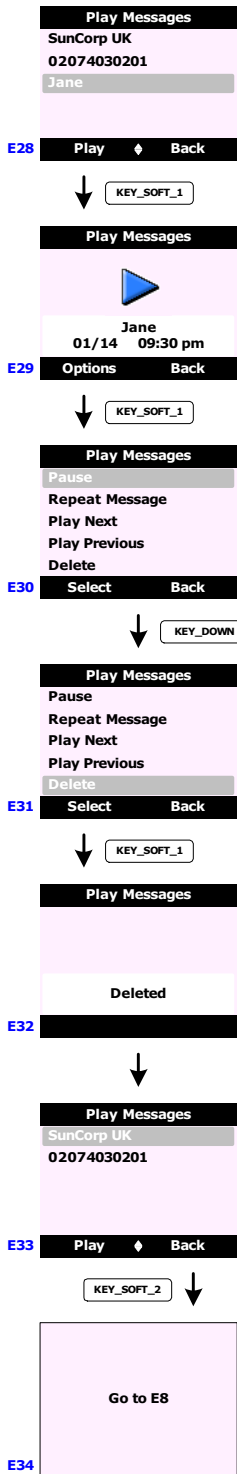
## Play Message (Skip Backward)



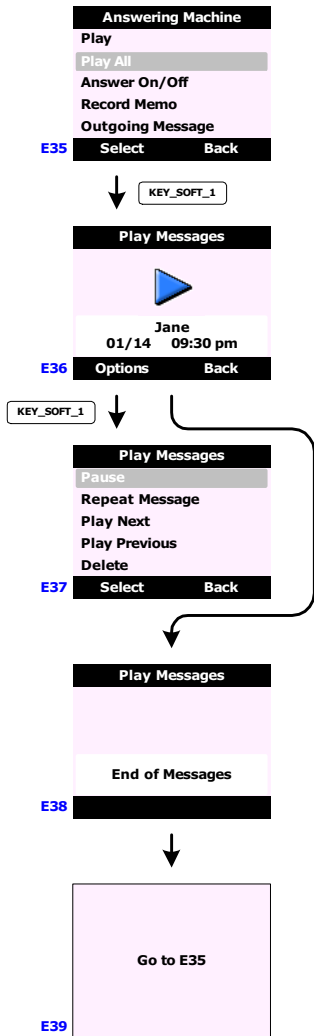


# ANSWERING MACHINE (cont.)

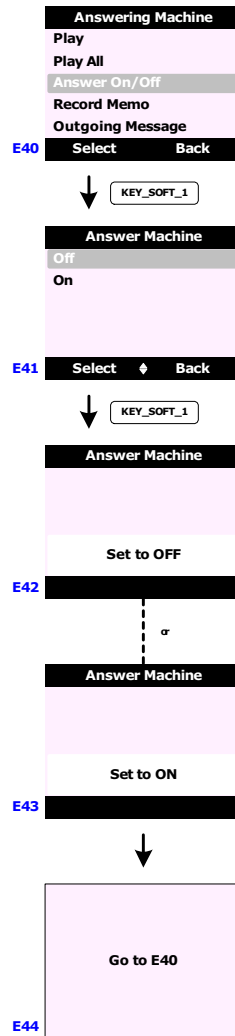
## Play Message (Delete)



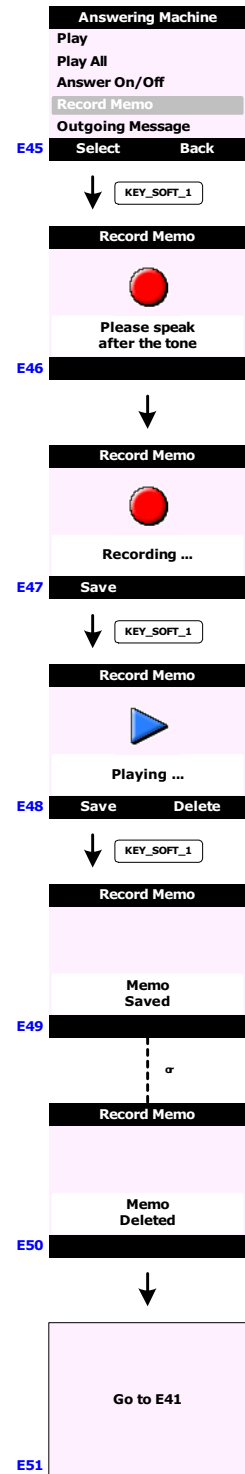
## Play All Messages



## Answer On/Off

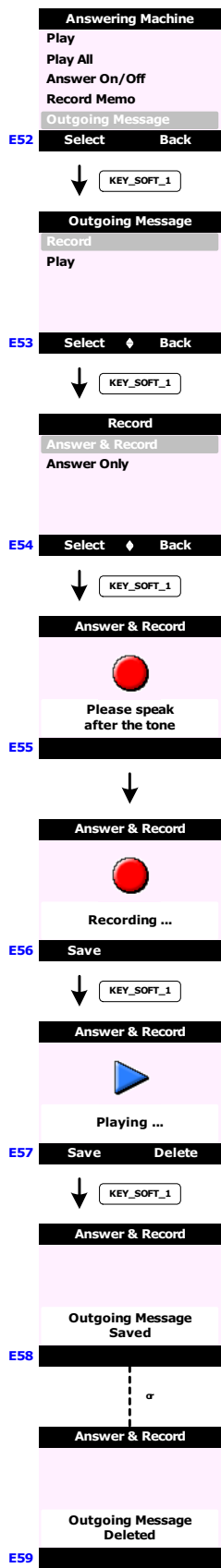


## Record Memo

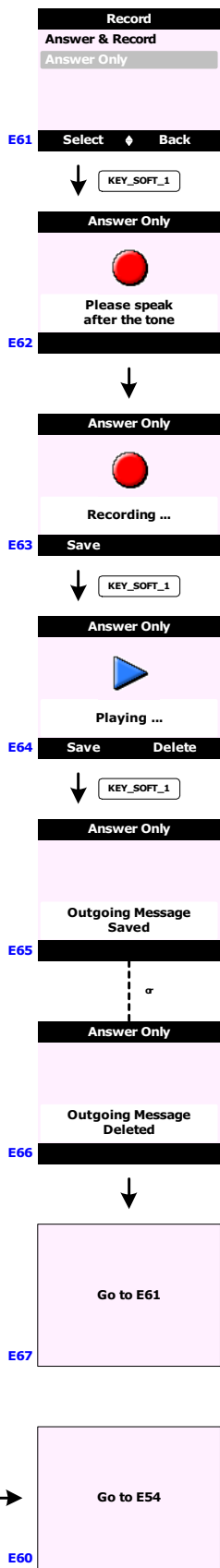


# ANSWERING MACHINE (cont.)

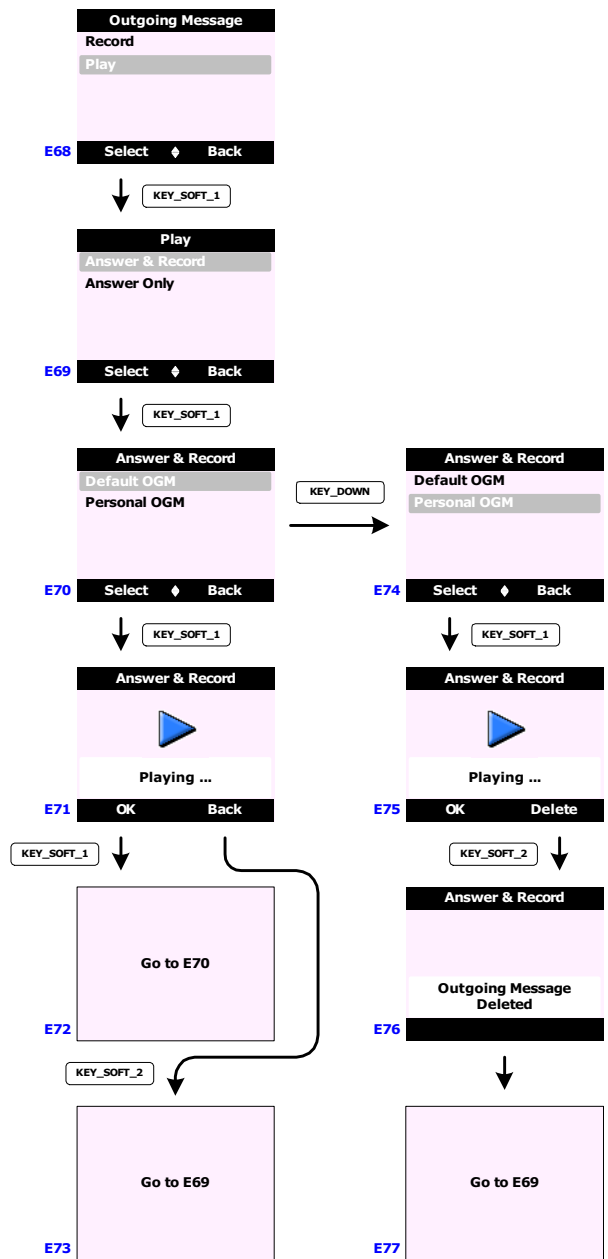
## Record OGM (Answer & Record)



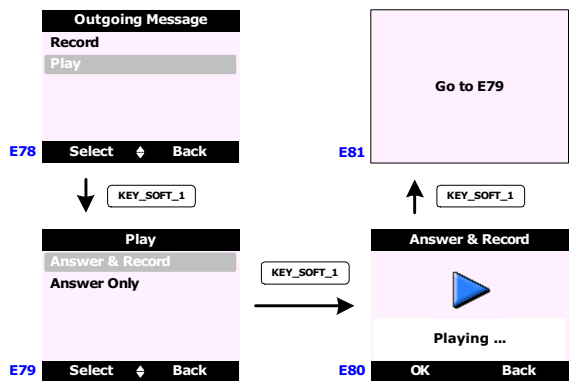
## Record OGM (Answer Only)



## Play OGM (Answer & Record) - if there is a Personal OGM saved

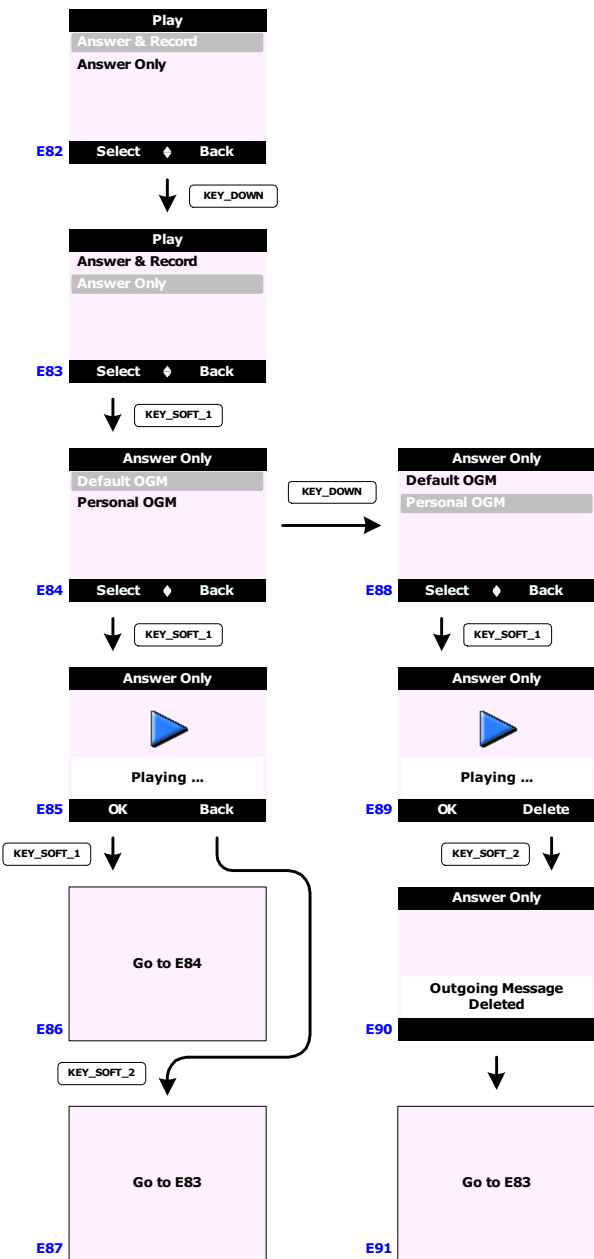


## Play OGM (Answer & Record) - if there is no Personal OGM saved

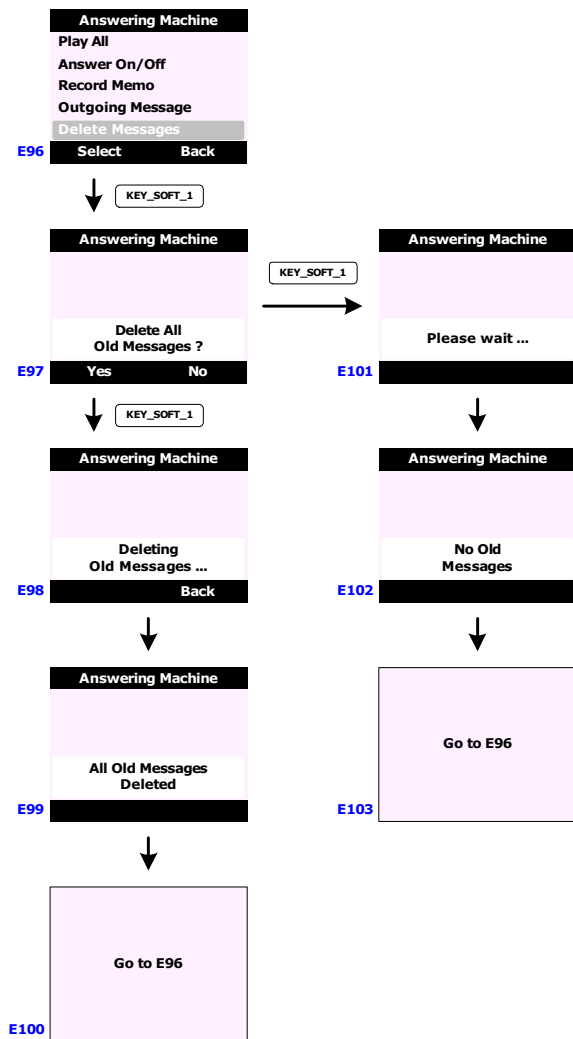


## ANSWERING MACHINE (cont.)

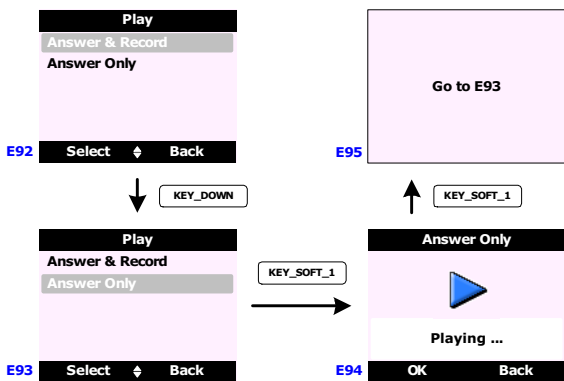
### Play OGM (Answer Only) - if there is a Personal OGM saved



### Delete Messages



### Play OGM (Answer & Record) - if there is no Personal OGM saved



# ANSWERING MACHINE (cont.)

## OGM Language

**Answering Machine**  
 Answer On/Off  
 Record Memo  
 Outgoing Message  
 Delete Messages  
 Answer Settings

E104 Select Back

KEY\_SOFT\_1

**Answer Settings**  
 OGM Language  
 Answer Mode  
 Answer Delay  
 Message Alert  
 Remote Access

E105 Select Back

KEY\_SOFT\_1

**OGM Language**  
 English  
 Français  
 Español

E106 Select Back

KEY\_SOFT\_1

**OGM Language**  
 Saved

E107

↓

Go to E105

E108

## Answer Mode (Answer & Record)

**Answer Settings**  
 OGM Language  
 Answer Mode  
 Answer Delay  
 Message Alert  
 Remote Access

E109 Select Back

KEY\_SOFT\_1

**Answer Mode**  
 Answer & Record  
 Answer Only

E110 Select Back

KEY\_SOFT\_1

**Answer & Record**  
 Default OGM  
 Personal OGM

E111 Select Back

KEY\_SOFT\_1

**Answer Mode**  
 Set to Answer & Record

E112

↓

Go to E109

E113

## Answer Mode (Answer Only)

**Answer Settings**  
 OGM Language  
 Answer Mode  
 Answer Delay  
 Message Alert  
 Remote Access

E114 Select Back

KEY\_SOFT\_1

**Answer Mode**  
 Answer & Record  
 Answer Only

E115 Select Back

KEY\_DOWN

**Answer Mode**  
 Answer & Record  
 Answer Only

E116 Select Back

KEY\_SOFT\_1

**Answer Only**  
 Default OGM  
 Personal OGM

E117 Select Back

KEY\_SOFT\_1

**Answer Mode**  
 Set to Answer Only

E118

↓

Go to E114

E119

## Answer Mode (Answer Only)

**Answer Settings**  
 OGM Language  
 Answer Mode  
 Answer Delay  
 Message Alert  
 Remote Access

E120 Select Back

KEY\_SOFT\_1

**Answer Delay**  
 2 Rings  
 3 Rings  
 4 Rings  
 5 Rings  
 6 Rings  
 7 Rings  
 8 Rings  
 9 Rings  
 Time Saver

E121 Select Back

KEY\_SOFT\_1

**Answer Delay**  
 Set to 2 Rings

E122

σ

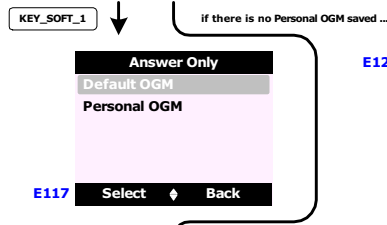
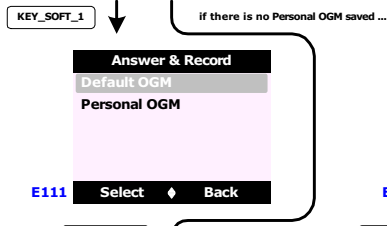
**Answer Delay**  
 Set to Time Saver

E123

↓

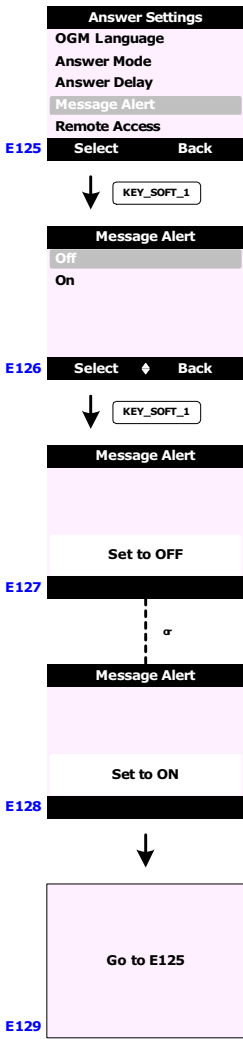
Go to E120

E124

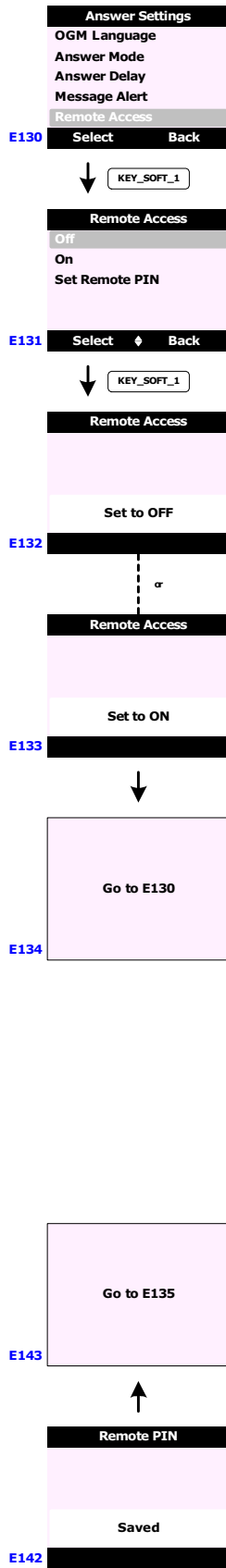


# ANSWERING MACHINE (cont.)

## Message Alert

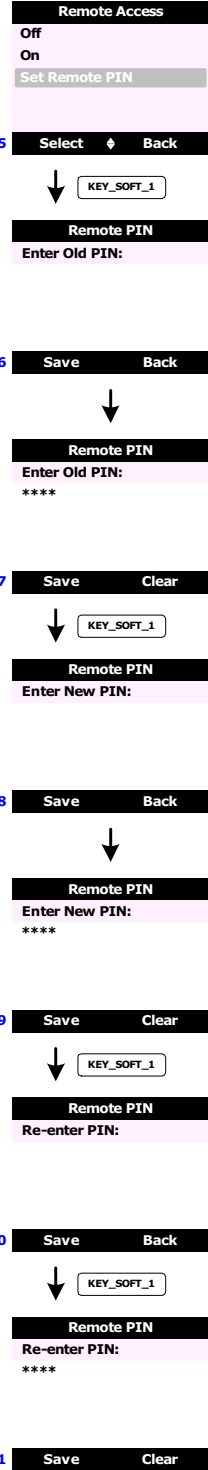


## Remote Access



KEY\_DOWN →

KEY\_SOFT\_1 ←



## Additional screens:



## ANSWERING MACHINE (cont.)

### Notes:

- When the answering machine takes the line (see screen E2) pre-set OGM is played. This can be default / personal answer and record, or default / personal answer only OGM. At this time the TAM recording icon (red dot) will flash on the display.
- Incoming messages can be up to 3 minutes in length. If a message being left fills the 3 minutes, the answering machine will end the call.
- Press **Screen** (KEY\_SOFT\_1) on the handset to listen to the message being left by the caller - this activates the earpiece but not the microphone (see screen E2). Once one of the handsets is screening the call, the other handsets revert to idle.
- Call screening can only be carried out at the handset in handsfree mode. Whilst the user is screening the call, pressing KEY\_TALK when the OGM is playing or the caller is leaving a message will answer the call.
- To exit call screening without speaking to the caller, press **End** (KEY\_SOFT\_2) on the display (see screen E3).
- To speak to the caller, press KEY\_TALK. Message recording is stopped and the in call screen is presented.
- If the memory becomes full when a caller is leaving a message, "**Memory Full**" or v14 voice prompt will be played and the call ended. The answering machine does a soft switch to answer only mode, playing the answer only OGM and showing memory full indication on the idle screen until messages are deleted and space becomes available. Once when memory becomes available the answering machine switches back to answer and record mode.
- User can play all or selective play messages.
- To selective play message - select **Play** from screen E8 or E146 and press KEY\_UP and KEY\_DOWN to highlight the message then press **Play** (KEY\_SOFT\_1) to play the messages (see screen E9 or E147).
- If **Play** is selected from screen E146, the handset will list all messages with the most recent message highlighted on the first line of the display. Press KEY\_DOWN will move the highlight down the list - backward chronologically.
- New messages are marked with a yellow star (see screen E9). Once a message has started to play, its "new message" tag will be removed and it will become an old message when the session ends.
- If **Play** (KEY\_SOFT\_1) is pressed on E147, the handset will start to play **Message 5**.  
During message playback, the TAM play icon (green triangle) will flash on the display (as per screen E10).
- If available the number or name (if the number matches an entry in the phonebook) of the caller is displayed during message playback.  
If the user does not subscribe to caller display, the message number is displayed in place of the CLI or name, e.g. "**Message 1**".  
When a memo is playing, the word "**Memo**" replaces the name or number of the caller. The time and date that the memo was recorded is displayed beneath it.
- The time and date that the call/message was received are also displayed.  
The format of the time and day stamps played at the beginning of each message is the number or name (if available), the day (DD/MM or MM/DD depending on EEPROM configuration) and then the time (HH:MM am/pm or HH:MM depending on EEPROM configuration).  
If the date the message was recorded is the same as the current date, "**Today**" is played instead of the day and date. If the date of the message is the day before the current date, "**Yesterday**" is played instead of the day and date.
- During message playback, press KEY\_UP or KEY\_DOWN to adjust volume (see screen E10). When no further button is pressed for 2 seconds the display returns to the relevant message screen.
- During message playback, press KEY\_TALK to switch between handset and handsfree playback mode.  
In this case the line is not seized. If the user wants to make a call they have to stop message playback first.
- During **Play** or **Play All** messages - press **Options** (KEY\_SOFT\_1) for the following options:
  - Pause** - to pause current message. Press **Resume** (KEY\_SOFT\_1) to resume playback (see screen E14)
  - Repeat Message** - to replay current message
  - Play Next** - to play next message
  - Play Previous** - to play previous message
  - Delete** - to delete current message - the display prompts "**Deleted**" (see screen E32). Message is deleted immediately.
- During **Play** or **Play All** messages - press the following keys for the following options:
  - KEY\_1** - to pause current message
  - KEY\_2** - to resume playback of current paused message
  - KEY\_3** - to replay current message
  - KEY\_4** - to play next message
  - KEY\_5** - to delete current message - the display prompts "**Deleted**". Message is deleted immediately.
  - KEY\_6** - to play previous message
- On screen E149, if **Play Next** is selected via the **Options** (KEY\_SOFT\_2) menu - the next message down the list is played. In this case it is **Message 4**.  
If **Message 5** is the first message received on the base (or last message on the list), when **Play Next** is selected the handset will return to the message list.
- On screen E149, if **Play Previous** is selected via the **Options** (KEY\_SOFT\_2) menu - the next message up the list is played.  
If **Message 5** is the last message received on the list, the handset will start to play **Message 5** again.
- If there are no messages when **Play / Play All** messages is selected:  
For product **without** voice prompts:  
The handset will prompt "**No Messages**" (see screen E144) and return to **Answer Machine** sub menus.  
For product **with** voice prompts:  
"**You have no messages**" or v7 voice prompt is played and the display prompts "**No Messages**" and returns to **Answer Machine** sub menus.

## ANSWERING MACHINE (cont.)

22. If **Play All** is selected from screen E146: -

For product **without** voice prompts:

On screen E147, there are three new and two old messages, **Message 3, 4, and 5** will be played first and then old messages, **Message 1, and 2**. Once all messages have been played - the display prompts "**End of Messages**" and returns to **Answer Machine** sub menus (see screen E38).

For product **with** voice prompts:

From screen E147, again all new messages are played first and then the old messages with numbering starting from 1 for each set of messages.

In this case there are 5 messages - three new and two old, "**You have 3 new messages**" or **v1b** will be played and then messages 3, 4, and 5 would be played (announced as **Message 1, 2, and 3**), "**Message 1, date and time stamp including Today and Yesterday where relevant**" or **v2**. The voice prompt "**You have 2 old messages**" or **v6b** would then be played and messages 1 and 2 would be played (again announced as **Message 1 and 2**), "**Message 1, date and time stamp including Today and Yesterday where relevant**" or **v2**. Once all messages have been played - "**End of Messages**" or **v4** voice prompt will be played and the display prompts "**End of Messages**" and returns to **Answer Machine** sub menus (see screen E38).

23. Similarly, if there are only old messages stored, when **Play All** is selected the handset goes straight to the "**You have one(N) old message(s)**" or **v6a/b** and old message(s) is/are played, "**Message 1, date and time stamp including Today and Yesterday where relevant**" or **v2**. Once all messages have been played - "**End of Messages**" or **v4** voice prompt will be played and the display prompts "**End of Messages**" and returns to **Answer Machine** sub menus (see screen E38).

24. During **Play All** messages, if **Pause** is selected either through **Options** (KEY\_SOFT\_1) menu or by pressing KEY\_1 - the playback is paused, the TAM pause icon (two blue bars) will flash on the display and the display prompts "**Message Paused**" (see screen E14). The handset will remain in the paused state for 60 seconds. If playback is not resumed within 60 seconds the display returns to idle reflecting any changes on new message status.

25. During **Play All** messages, if **Play Next** is selected either through **Options** (KEY\_SOFT\_1) menu or by pressing KEY\_4:

For product **without** voice prompts:

The handset will play next message. If the message played is the last message on the base - the display prompts "**End of Messages**" and returns to **Answer Machine** sub menus (see screen E38).

For product **with** voice prompts:

The handset will play next message. If the message played is the last message on the base - "**End of Messages**" or **v4** voice prompt will be played and the display prompts "**End of Messages**" and returns to **Answer Machine** sub menus (see screen E38).

26. During **Play All** messages, if **Play Previous** is selected either through **Options** (KEY\_SOFT\_1) menu or by pressing KEY\_4:

For product **without** voice prompts:

The handset will play previous message. If the message played is already the first message on the base - the handset will replay the current message.

For product **with** voice prompts:

The handset will play previous message. If the message played is already the first message on the base - the handset will replay the current message, "**Message 1, date and time stamp including Today and Yesterday where relevant**" or **v2**.

27. During message playback, when messages are deleted, the remaining messages are not renumbered until playback is completed and the product returns to idle.

For product **without** voice prompts:

If message is deleted during playback, either through **Options** (KEY\_SOFT\_1) menu or by pressing KEY\_5 - the display prompts "**Deleted**" (see screen E32). Message is deleted immediately. If all messages have been individually delete - the display prompts "**End of Messages**" and returns to **Answer Machine** sub menus (see screen E38).

For product **with** voice prompts:

If message is deleted during playback, either through **Options** (KEY\_SOFT\_1) menu or by pressing KEY\_5 - "**Message deleted**" or **v3** voice prompt will be played and the display prompts "**Deleted**" (see screen E32). Message is deleted immediately. If all messages have been individually delete - "**End of Messages**" or **v4** voice prompt will be played and the display prompts "**End of Messages**" and returns to **Answer Machine** sub menus (see screen E38).

28. Pressing KEY\_END during message playback will stop the playback and the display will return to idle.

29. Once the user has interacted with the new messages and returned to idle any changes in the number or status of messages is reflected on the reminder icon (if available). For example, if all messages were played - the TAM message reminder icon will disappear from the idle display.

30. When TAM is in use by one handset. If another handset tries to access the TAM functionality - the display prompts "**Answer Machine In Use**" (see screen E150).

31. To switch the answering machine on/off, select **Answer On/Off** on screen E40.

For product **without** voice prompts:

If **Off** is selected - the display prompts "**Set to OFF**" and returns to **Answer Machine** sub menus (see screen E42).

If **On** is selected - the display prompts "**Set to ON**" and returns to **Answer Machine** sub menus (see screen E43).

For product **with** voice prompts:

If **Off** is selected - "**Answer Off**" or **v15** voice prompt is played and the display prompts "**Set to OFF**" and returns to **Answer Machine** sub menus (see screen E42).

If **On** is selected - "**Answer On**" or **v16** voice prompt is played and the display prompts "**Set to ON**" and returns to **Answer Machine** sub menus (see screen E43).

## ANSWERING MACHINE (cont.)

32. To record memo, select **Record Memo** on screen E45.

For product **without** voice prompts:

When **Record Memo** is selected on screen E45 - the display prompts "**Please speak after the tone**" (see screen E46). When the recording starts the TAM recording icon will flash on the display (see screen E47).

For product **with** voice prompts:

When **Record Memo** is selected on screen E45 - "**Please speak after the tone. To end recording, press Save**" or **v8** voice prompt is played and the display prompts "**Please speak after the tone**" (see screen E46). When the recording starts the TAM recording icon will flash on the display (see screen E47).

33. When recording a memo, press **Save** (KEY\_SOFT\_1) to save the recorded memo.

For product **without** voice prompts:

Press **Save** (KEY\_SOFT\_1) or KEY\_HASH to stop the recording - the handset starts to play recorded memo. Press **Save** (KEY\_SOFT\_1) again to save the memo - the display prompts "**Memo Saved**" and returns to **Answer Machine** sub menus (see screen E49).

For product **with** voice prompts:

Press **Save** (KEY\_SOFT\_1) or KEY\_HASH to stop the recording - the handset starts to play recorded memo. Press **Save** (KEY\_SOFT\_1) again to save the memo, "**Your memo is <<Memo>>**" or **v13** voice prompt is played and the display prompts "**Memo Saved**" and returns to **Answer Machine** sub menus (see screen E49).

34. To delete recorded memo, during the playback press **Delete** (KEY\_SOFT\_2) - the display prompts "**Memo Deleted**" and returns to **Answer Machine** sub menus (see screen E50).

35. If the memory becomes full during recording a memo:

For product **without** voice prompts:

The recording will stop and the handset prompts "**Memory Full**" (see screen E151) and starts to play recorded memo.

For product **with** voice prompts:

The recording will stop and the handset prompts "**Memory Full**" (see screen E151) and "**Memory Full**" or **v14**, "**Your memo is <<Memo>>**" or **v13** voice prompt are played and the handset returns to **Answer Machine** sub menus.

36. There are two default OGMs and the base can have two user recorded / Personal OGMs.

37. The answer and record OGM is limited to 3 minutes. The answer only OGM can fill any available memory.

38. To record an OGM, select the type of OGM to record (see screen E54):

For product **without** voice prompts:

When **Answer & Record** or **Answer Only** is selected on screen E54 - the display prompts "**Please speak after the tone**" (see screen E55). When the recording starts the TAM recording icon will flash on the display (see screen E56).

For product **with** voice prompts:

When **Answer & Record** or **Answer Only** is selected on screen E54 - "**Please speak after the tone. To end recording, press Save**" or **v8** voice prompt is played and the display prompts "**Please speak after the tone**" (see screen E55). When the recording starts the TAM recording icon will flash on the display (see screen E56).

39. When recording an OGM, press **Save** (KEY\_SOFT\_1) to save the recorded memo.

For product **without** voice prompts:

Press **Save** (KEY\_SOFT\_1) or KEY\_HASH to stop the recording - the handset starts to play recorded OGM. Press **Save** (KEY\_SOFT\_1) again to save the OGM - the display prompts "**Outgoing Message Saved**" and returns to E54 or E61 (see screen E58 and E65).

For product **with** voice prompts:

Press **Save** (KEY\_SOFT\_1) or KEY\_HASH to stop the recording - the handset starts to play recorded OGM. Press **Save** (KEY\_SOFT\_1) again to save the OGM, "**Your outgoing message is <<Personal OGM>>**" or **v9** voice prompt is played and the display prompts "**Outgoing Message Saved**" and returns to E54 or E61 (see screen E58 and E65).

40. To delete recorded OGM, during the playback press **Delete** (KEY\_SOFT\_2).

For product **without** voice prompts:

Press **Delete** (KEY\_SOFT\_2) to delete recorded OGM - the display prompts "**Outgoing Message Deleted**" and returns to E54 or E61 (see screen E59 and E66).

For product **with** voice prompts:

Press **Delete** (KEY\_SOFT\_2) to delete recorded OGM - "**Message deleted**" or **v3**, "**Your outgoing message is <<Default OGM>>**" or **v9** voice prompts are played and the display prompts "**Outgoing Message Deleted**" and returns to E54 or E61 (see screen E59 and E66).

41. If the memory becomes full during recording an OGM:

For product **without** voice prompts:

The recording will stop and the handset prompts "**Memory Full**" (see screen E151) and starts to play recorded OGM.

For product **with** voice prompts:

The recording will stop and the handset prompts "**Memory Full**" (see screen E151) and "**Memory Full**" or **v14**, "**Your outgoing message is <<Personal OGM>>**" or **v9** voice prompt is played and the handset starts to play recorded OGM.



## ANSWERING MACHINE (cont.)

41. To play an OGM, select the type of OGM to play (see screen E69). Screen E70 is only offered if there is a Personal OGM saved.
42. Playback of voice prompts and OGMs are in handsfree mode and can be switched to handset mode at any time by pressing KEY\_TALK.
43. During the playback of Personal OGM - it is possible to delete the OGM by pressing **Delete** (KEY\_SOFT\_2) or pressing **OK** (KEY\_SOFT\_1) to return to previous screen (see screen E75 and E89).
44. During the playback of Default OGM - "**Delete**" is not offered (see screen E71 and E85).
45. If there are no old messages when **Delete Messages** is selected on screen E96 - the display prompts "**No Old Messages**" for 2 seconds then returns to **Answer Machine** sub menus (see screen E102).
46. Only old message(s) can be deleted. Once old messages have been deleted:  
For product **without** voice prompts:  
The handset prompts "**All Old Messages Deleted**" and returns to **Answer Machine** sub menus (see screen E99).  
For product **with** voice prompts:  
"**All old messages deleted**" or **v5** voice prompt is played and the display prompts "**All Old Messages Deleted**" and returns to **Answer Machine** sub menus (see screen E99).
47. **OGM Language** menu can be hidden in EEPROM.
48. When setting the answer mode, screen E111 and E117 are only offered if there are personal OGMs saved.
49. The remote PIN is 4-digit long and it does not need to be changed from the default (0000) before the feature can be used.
50. There should be two settings in EEPROM where the number of rings for timer saver feature can be defined.  
For example, the TAM answers calls after 6 rings if there are no new messages stored, and after 2 rings if there are new messages stored. Or the TAM answers calls after 4 rings if there are no new messages stored, and after 2 rings if there are new messages stored.

### Voice Prompts List:

- |  |   |
|--|---|
| <ol style="list-style-type: none"><li>1. <b>a:</b> You have one new message<br/><b>b:</b> You have N new messages</li><li>2. Message N, date and day stamp (e.g 12th September, 11.30am) including Today and Yesterday where relevant</li><li>3. Message deleted</li><li>4. End of messages</li><li>5. All old messages deleted</li><li>6. <b>a:</b> You have one old message<br/><b>b:</b> You have N old messages</li><li>7. You have no messages</li><li>8. Please speak after the tone. To end recording, press Save</li><li>9. Your outgoing message is &lt;&lt;OGM&gt;&gt;</li><li>10. Hello, your call cannot be taken at the moment so please leave your message after the tone<br/><i>(This is default answer &amp; record OGM)</i></li><li>11. Hello, your call cannot be taken at the moment and you cannot leave a message, so please call later<br/><i>(This is default answer only OGM)</i></li><li>12. Messages saved</li><li>13. Your Memo is &lt;&lt;Memo&gt;&gt;</li><li>14. Memory full</li><li>15. Answer off</li><li>16. Answer on</li><li>17. Incorrect security code, please enter your security code</li><li>18. Incorrect security code</li><li>19. To hear main menu, press one</li><li>20. To play messages, press two</li><li>21. To play new messages, press three</li><li>22. To skip back during messages, press four</li><li>23. To delete during messages, press five</li><li>24. To skip forward during messages, press six</li><li>25. To set to answer only, press seven</li></ol> | <ol style="list-style-type: none"><li>26. To set to answer and record, press seven</li><li>27. To record a new outgoing message, press eight</li><li>28. To set answer off, press nine</li><li>29. To set answer on, press zero</li><li>30. Please speak after the tone. To end recording, press square</li><li>31. Please enter your security code</li><li>32. Please complete your message within 10 seconds</li><li>33. To delete all messages, press five</li><li>34. Set to answer only</li><li>35. Set to answer and record</li><li>36. You have no new messages</li><li>37. All messages deleted</li></ol> |
|--|---|

## ANSWERING MACHINE (cont.)

DTMF Code	Operations	
	with Voice Prompts	without Voice Prompts
*	To enter remote access mode	To enter remote access mode
1	To hear main menu	No action
2	To play all messages	To play all messages
3	To play new messages	To play new messages
4	To skip back during messages	To skip back during messages
5	To delete during messages	To delete during messages
6	To skip forward during messages	To skip forward during messages
7	To set answer mode	No action
8	To record a new OGM	No action
9	To switch answer machine off	To switch answer machine off
0	To switch answer machine on	To switch answer machine on

### Remote operation with voice prompts:

- When the answering machine is off - the answering machine is remotely switched on after X seconds (time is EEPROM adjustable).
- Access to the remote interrogation feature shall be via a break-in (break-in code DTMF code\_\*) instruction at any time following the start of the outgoing message.
- A maximum of two attempts at entering the correct security code shall be allowed in one call.
- Following acceptance of the DTMF code\_\*, the unit shall suspend its current operation, play **v31**, and prepare to accept the first digit of the code (default code is 0000) .
- If no further digits are entered within a further 8-second period, or less than four digits are entered within an 8-second period, following any DTMF code\_\*, the unit shall play **v17**. It shall then prepare to accept the whole code again, within a further 8-second period as on the first attempt. The process is as for the first attempt but if the second attempt is unsuccessful then the unit shall announce **v18** and release the line.
- When the unit recognises the fourth DTMF digit the unit shall check the validity of the code. If the code entered is incorrect, (and if this is the first attempt), the unit shall announce **v17**. It shall then prepare to accept the first digit of the code again, within an 8-second period as on the first attempt. The process is as for the first attempt but if the second attempt is unsuccessful then the unit shall announce **v18** and release the line.
- One security code has been entered during remote interrogation - the display prompts "**Remote Access In Progress**" (see screen E145).
- If the code was correct and the unit has new messages, the unit announces **v1a/v1b** and the new messages, **v2** are played.
- After message play, all messages may be deleted if DTMF 5 is keyed within 8 seconds of the end of the prompt **v4, v33, v19**. If DTMF 5 is detected at this stage, **v5** and **v19** shall be announced and all the messages just played shall be deleted (new messages only when only new messages have been played).  
If no instruction is received within 8 seconds the unit shall and send two beeps and release the line.
- If there are no new messages then the unit announces **v36, v19** and waits 8 seconds and if no DTMF instructions are received the unit sends a long beep before releasing the line.
- During remote interrogation, if DTMF code\_1 is detected, it shall cause the unit to stop its current action and play the main menu **v20, v21, v22, v23, v24, v25/v26, v27, v28, v29**, then **v19**.
- If DTMF code\_2 is detected, if there are new messages **v1a/v1b** shall be announced and messages played. If there are old messages, **v6a/v6b** shall be announced and messages played.  
At the end of the playback the unit shall offer the opportunity to delete all messages as above (this is the announcement of **v4, v33**, then **v19**). **v37** and **v19** shall be announced and all the messages new and old messages shall be deleted.  
If there is no messages to play the unit shall announce **v7**, then **v19**.
- If DTMF code\_3 is detected, **v1a/v1b** shall be announced and messages played. At the end of the playback the unit shall offer the opportunity to delete all messages as above (this is the announcement of **v4, v33**, then **v19**). **v5** and **v19** shall be announced and all the messages just played shall be deleted (new messages only when only new messages have been played).  
If there is no messages to play the unit shall announce **v7**, then **v19**.
- If DTMF code\_2 is detected during message playback, the unit shall pause the playback. The confirmation tone will be heard after 10 seconds, which is repeated every 10 seconds.  
While the message playback is paused, it will resume if DTMF code\_2 is recognised. Confirmation that the DTMF code\_2 has been detected will be by the user hearing the messages.  
If a message is left paused for more than 60 seconds, all messages shall be saved (except those deleted before the last **v4** prompt), and send long beep and then line released.
- If DTMF code\_4 is detected during message playback, the unit shall skip back to the start of the previous message.

## ANSWERING MACHINE (cont.)

16. Messages will be selectively deleted if DTMF 5 is received. Confirmation that the message has been deleted will be by the unit announcing **v3** and skipping forward to play the next message, or to the end of message sequence described above.

Messages are marked for deletion at this stage but are only actually deleted after the line is released.

If all messages have been individually deleted, **v4, v33**, then **v19** shall be announced after the DTMF code\_5 is recognised.

17. If DTMF code\_6 is detected during message playback, the unit shall skip forward to the start of the next message.

If the end of messages is reached during skip forwards, **v4, v33**, then **v19** shall be announced after the DTMF code\_6 is recognised.

18. When DTMF code\_7 is detected, the unit shall announce **v9, <<Personal OGM>>** or **<<Default OGM>>**, then **v19**.

19. When DTMF code\_8 is detected, the unit shall announce **v30** and after DTMF code\_# is recognised the unit shall announce **v9, <<Personal OGM>>**, then **v19**.

20. When DTMF code\_9 is detected, the unit shall announce **v15**, then **v19**.

21. When DTMF code\_0 is detected, the unit shall announce **v16, v9, <<Personal OGM>>** or **<<Default OGM>>**, then **v19**.

22. Any valid message recorded before remote interrogation is attempted (successfully or not) shall be saved and indicated after the line is released (unless deleted during remote interrogation).

23. If the caller clears the line during remote interrogation, the unit will not hold the line indefinitely. If the caller has cleared - the unit shall clear after the 8-second period at the end of message playback.

After the line is released any messages that have not been deleted shall be saved and indicated on the message counters (if available).

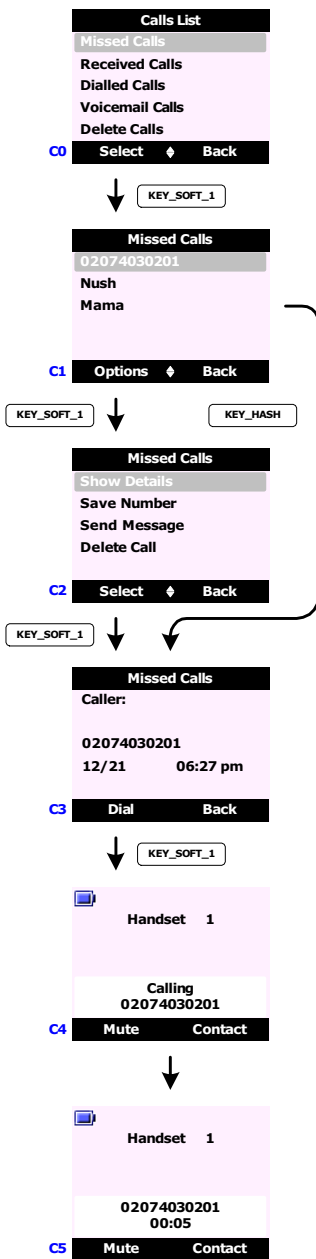
24. It shall be possible to interrupt an operation or the remote interrogation menus by sending an appropriate DTMF signal. If the remote menu is being playback, pressing invalid DTMF shall emit an error beep.

If the main menu is played to end without any interruption, it waits for 8 seconds for the user to enter the DTMF, if a DTMF instruction is received which is not valid, then 4 short beeps will be played to line and the count down counter (8 seconds) keeps counting down. After 8 seconds time out, the unit will send a long beep and then release the line.

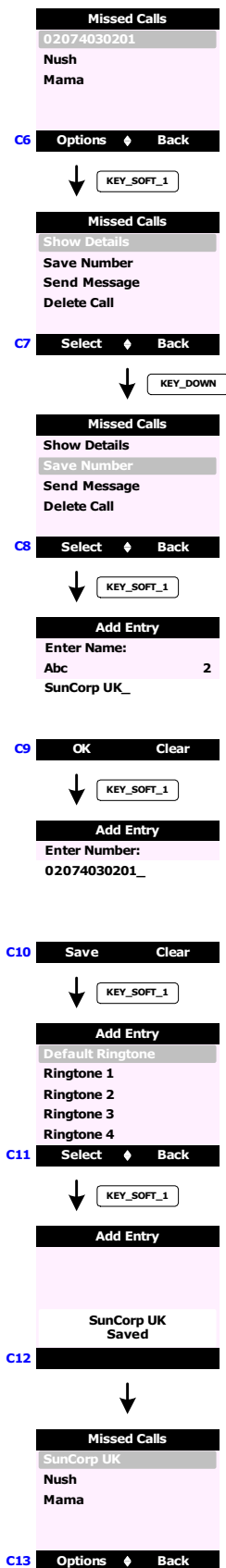
### Remote operation with voice prompts:

# CALLS LIST

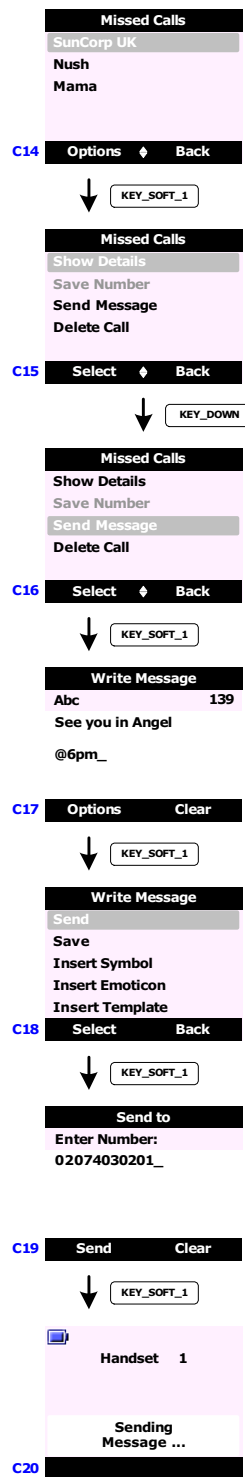
## Missed Calls (Show Details)



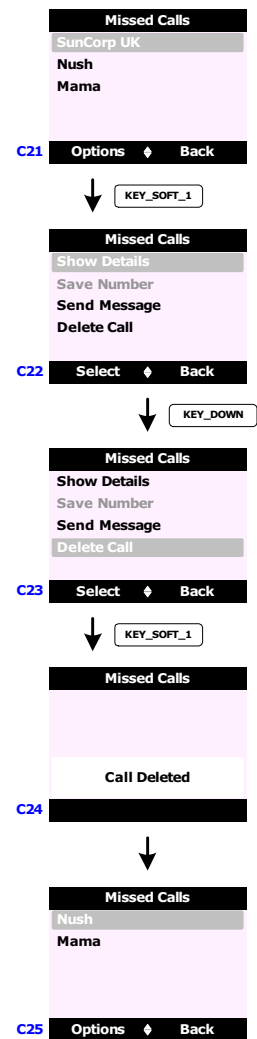
## Missed Calls (Save Number)



## Missed Calls (Send Message)

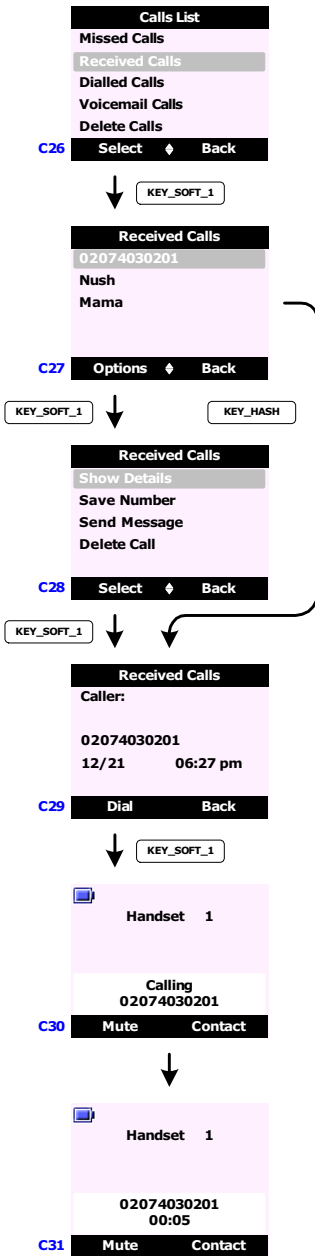


## Missed Calls (Delete Call)

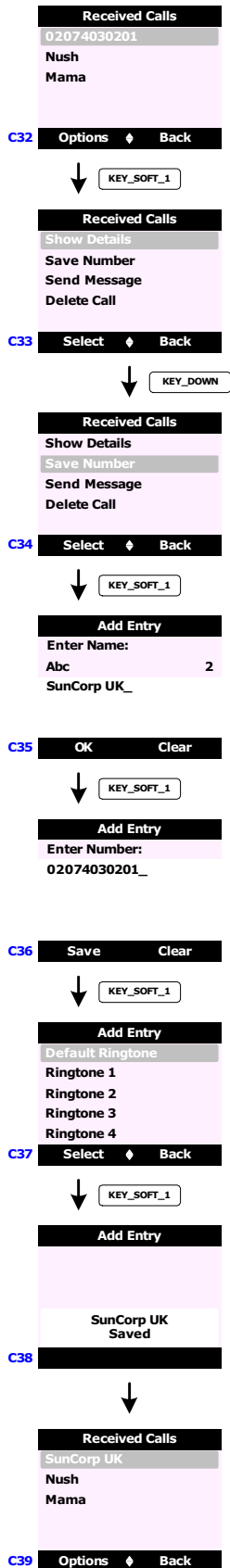


**CALLS LIST (cont.)**

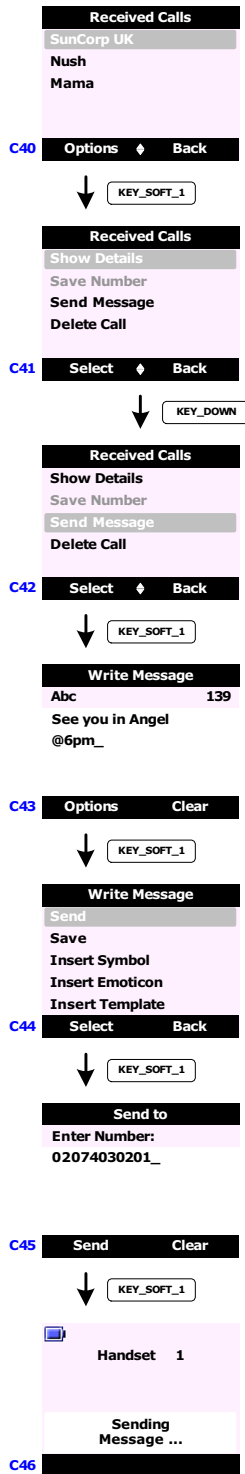
**Received Calls (Show Details)**



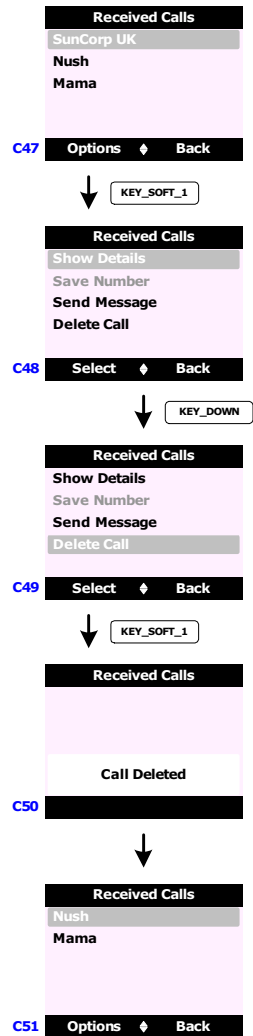
**Received Calls (Save Number)**



**Received Calls (Send Message)**

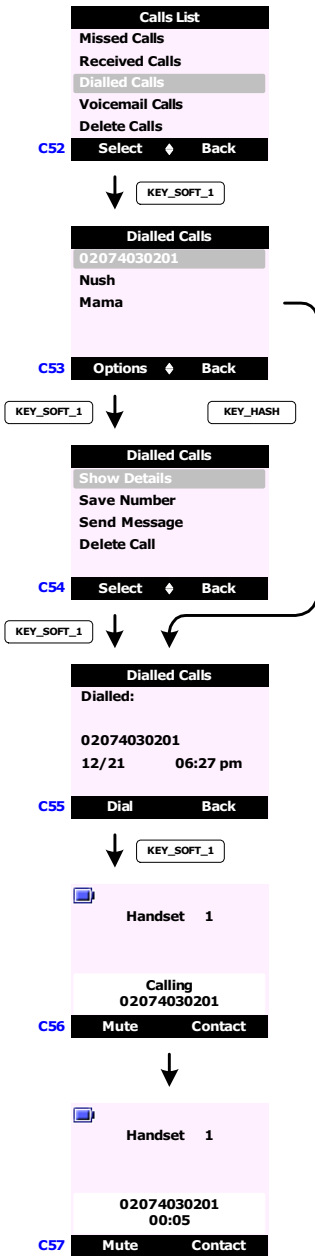


**Received Calls (Delete Call)**

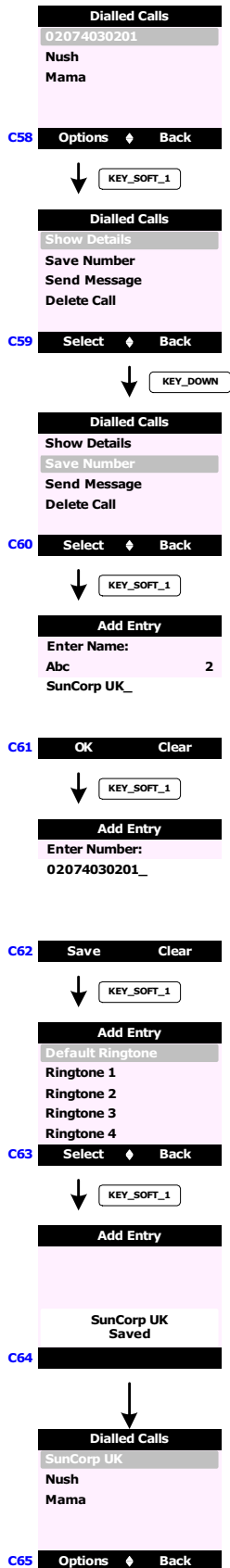


**CALLS LIST (cont.)**

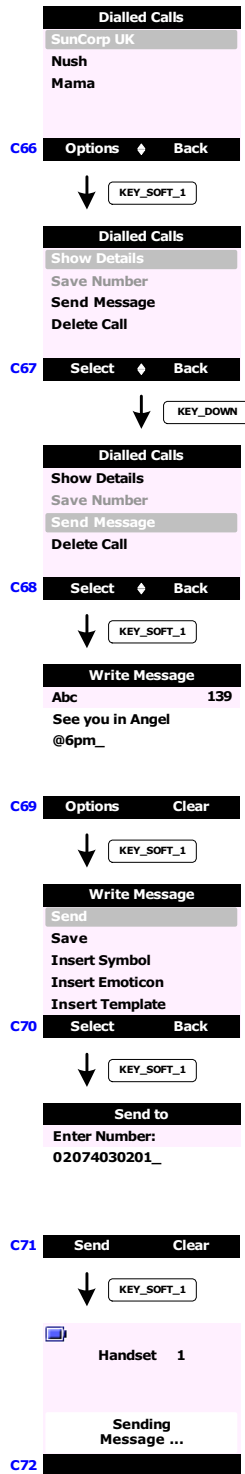
**Dialled Calls (Show Details)**



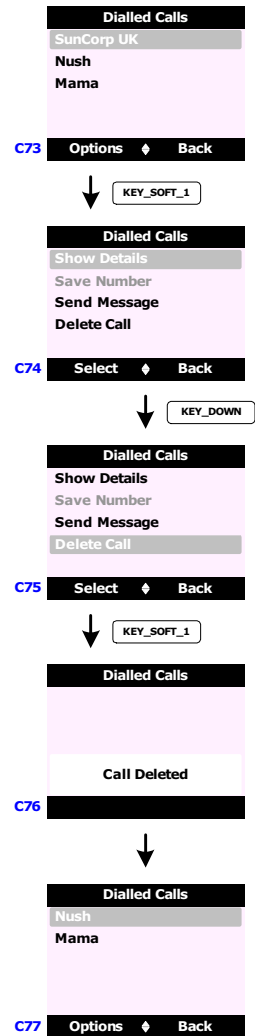
**Dialled Calls (Save Number)**



**Dialled Calls (Send Message)**

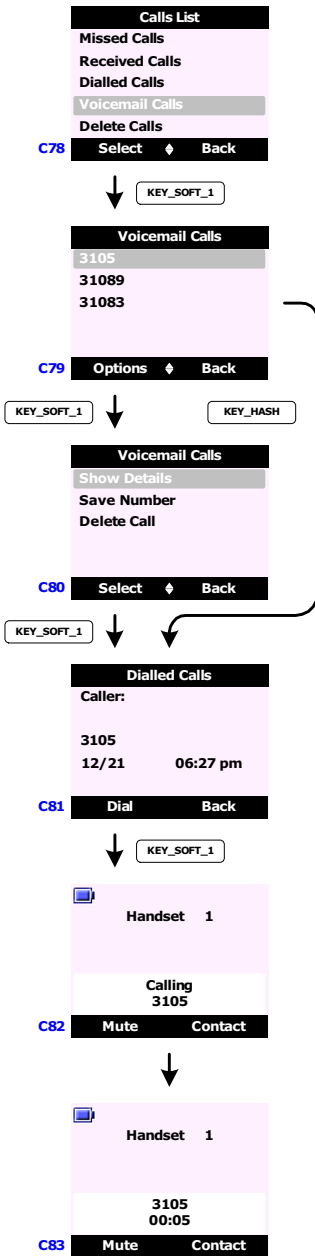


**Dialled Calls (Delete Call)**

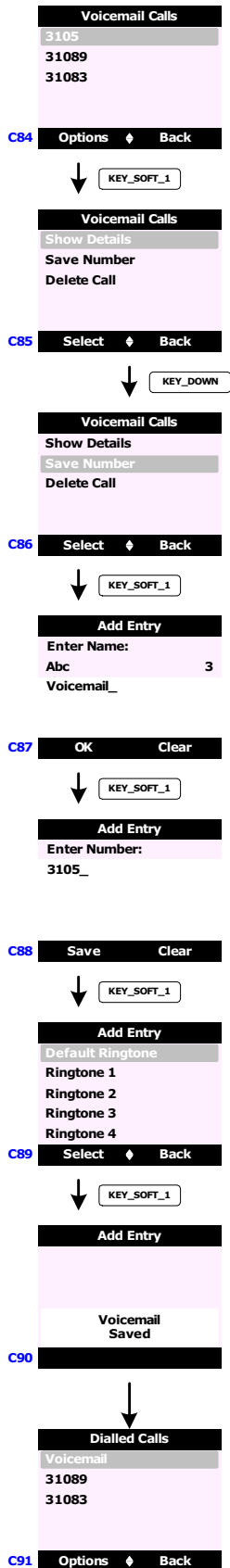


**CALLS LIST (cont.)**

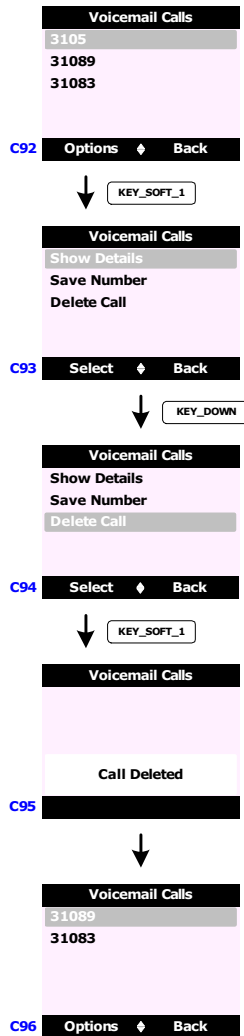
**Voicemail Calls (Show Details)**



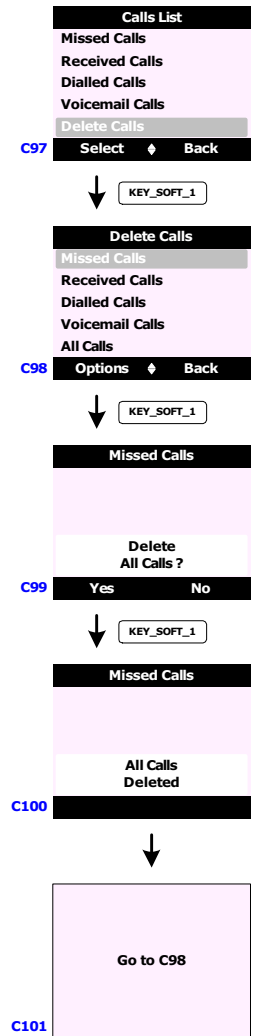
**Voicemail Calls (Save Number)**



**Voicemail Calls (Delete Call)**

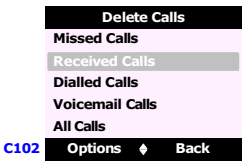


**Delete Calls (Missed Calls)**

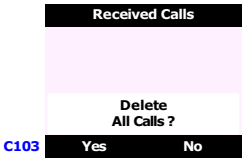


**CALLS LIST (cont.)**

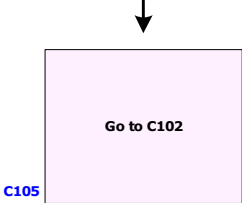
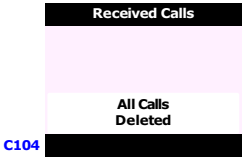
**Delete Calls (Received Calls)**



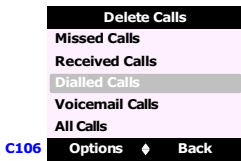
KEY\_SOFT\_1



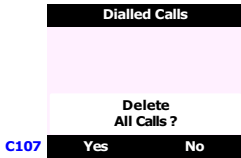
KEY\_SOFT\_1



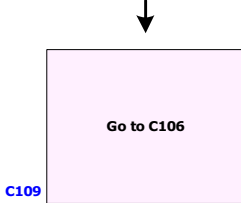
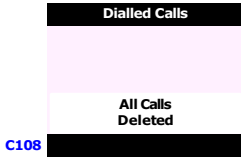
**Delete Calls (Dialled Calls)**



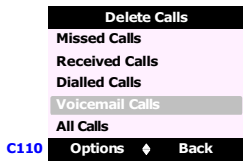
KEY\_SOFT\_1



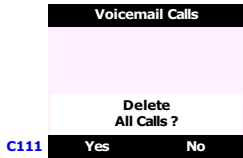
KEY\_SOFT\_1



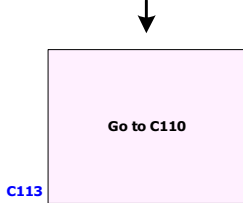
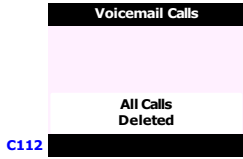
**Delete Calls (Voicemail Calls)**



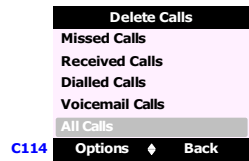
KEY\_SOFT\_1



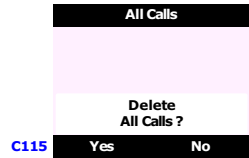
KEY\_SOFT\_1



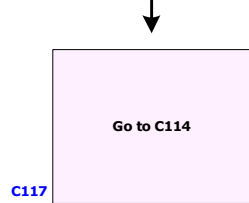
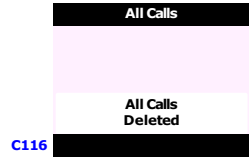
**Delete All Calls**



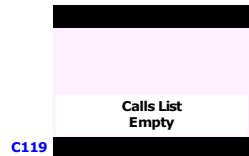
KEY\_SOFT\_1



KEY\_SOFT\_1



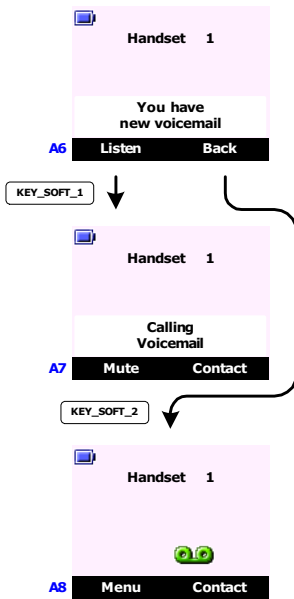
1. The **Received Calls** list will store answered calls and the **Missed Calls** list will store unanswered calls.
2. Assignment of incoming calls to either the missed or received calls list cannot take place until the call is ended and the status of the call is known.
3. Calls with no number associated with them are also stored in the calls list, i.e. withheld numbers, international calls, etc.
4. When viewing the calls list the most recent call will be highlighted on the first line of the display. Press KEY\_DOWN will move the highlight down the list - backward chronologically.
5. When viewing the calls list the name is displayed if the number matches an entry in the phonebook.  
Each handset may show different names associated with the same number stored on different handsets.
6. The handset can store up to 40 answered or unanswered calls and up to 20 last dialled calls depending on EEPROM size.
7. To call an entry from any calls list, highlight the entry and press KEY\_TALK on the handset to dial out.
8. The time format used on "Show Details" screen is according to the user setting of the handset.
9. **Save Number** option is greyed out if the number already exists in the phonebook.
10. When saving a number, both a name and a number have to be entered for an entry to be saved. **Save** (KEY\_SOFT\_1) is not presented until there is content in the name and at least one digit in the number field.
11. If the phonebook is full when "Save Number" is selected - the display prompts "**Phonebook Memory Full**" (see screen C118) and returns to the previous screen.
12. **Send Message** option is greyed out if there is no number associated with the entry.
13. **Send Message** option is not offered if SMS feature is not available or disabled.
14. If **Send Message** is selected, this is a shortcut to the "Write Message" functionality in Text Messaging. The number is pre-entered in the "Send To" field.
15. Once the received calls list is full, when another call is received, the oldest call in the list is deleted.
16. Once the dialled calls list is full, when another call is made, the oldest call in the list is deleted.
17. If a call is made to a number already in the list, the number will be re-located to the top of the list and the previous occurrence deleted.
18. If the received, missed, voicemail or dialled calls list is empty when accessed, or when the user attempts to delete all calls lists, the display prompts "**Calls List Empty**" for 2 seconds and return to the previous screen or the idle display, if the dialled calls list is accessed from idle (see screen C119).





## VoiceMail Calls Management

### NEW VOICEMAIL



1. When a VMWI call arrives with name and number the entry is stored in **Missed** and **VoiceMail Calls** list. If **VoiceMail Calls** list is disabled the entry will be stored in the **Missed Calls** list.

The handset will display the name or number if available. If the user prefers that it displays "**VoiceMail**" or "**VoiceMail Box 5**" then this can be done by creating entries for "**VoiceMail**" and "**VoiceMail Box 5**" in the phonebook so incoming VMWI CID can match to the entry in the phonebook and display "**VoiceMail**" or "**VoiceMail Box 5**".

2. When a VMWI call arrives without name and number the entry is NOT stored in the **Missed** and **VoiceMail Calls** list.
3. The entry or record of specific VMWI is deleted when a matching de-notification for that specific entry is received.
4. The handset should not store VMWI de-notification number.
5. The handset should be able to manage call repeat of VMWI entries with the same CID. In other words, it does not show two entries for 3105.
6. In event of the network failing to de-notify the terminal - the user can perform a manual de-notification to switch off event indications by deleting all VMWI calls via the **Delete Calls** > **VoiceMail Calls** menu option. All VMWI calls will be deleted from **Missed** and **VoiceMail Calls** list on his handset.

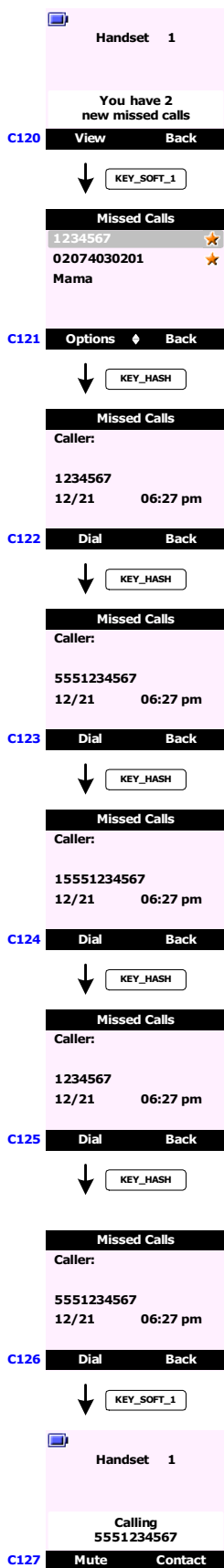
The handset will inform the base that all VMWI entries have been deleted and all handset and base event LED will stop flashing and reminder icon removed from the display. This is only the case for VMWI with CID.

Alternatively, a long press on KEY\_1 when in the **Delete Calls** menu list will switch off all VMWI indication, the handset and base event LED will stop flashing and the VMWI reminder icon removed from the display.

7. VMWI calls are personal to each handset, if one handset deletes a VMWI entry from the calls list, the same entry is not deleted on the other handset.
8. There should be no automatic deletion of VMWI entries when the calls list memory becomes full.
9. When a VMWI call arrives, all handsets will display "**You have new voicemail**" and the handset and base LED flashes, if **Back** (KEY\_SOFT\_2) is pressed the handset will show VMWI reminder icon (at this time handset and base LED continues to flash) until VMWI OFF is received or if the entry is deleted from **Missed** or **VoiceMail Calls** list.
10. If a VMWI call is received without CID or the VMWI number received is the same as the voicemail number stored in EEPROM, say 3105, pressing **Listen** (KEY\_SOFT\_1) will dial 3105. If the number of the last VMWI call arrived is different to the number stored in EEPROM, say 3108, pressing **Listen** (KEY\_SOFT\_1) will dial the last VMWI number received - in this case it will dial 3108.
11. If there is one VMWI ON, for example, from 3105, and the user deletes this entry or when a VMWI OFF is received, the handset and base event LED will stop flashing and the reminder icon removed from the handset display.
12. When two or more VMWI ON is received, for example, from 3105 and 3108 - if 3108 VMWI OFF is received it should only delete 3108 VMWI ON from all handsets. The handset event LED and the reminder icon should remain flashing until 3105 VMWI OFF is received but the base event LED will stop flashing once one VMWI off is received.

# US CallBack - Area Code Management

## Switching between number format:



1. This feature "Area Code" is added to Set Base menu and can be hidden in EEPROM.
2. For the are code, the maximum code length is 3 digits and cannot be set to <EMPTY>.  
If the user attempts to save an area code that is less than 3 digits or <EMPTY>, the handset will emit an error beep.
3. When this feature is enabled, the switching of the number format will work on the missed and received calls lists.
4. At the missed or received calls list, KEY\_HASH will take the user directly to the Show Details screen.
5. At "Show Details" screen, a press on KEY\_HASH will change the number format in a cyclical manner: -

7 > 10 (adding "555") > 11 (adding "1") > 7 > 10 > ...

For example, if the area code is set to 555:

- an incoming call with 7-digit caller ID, **1234567**, first press on KEY\_HASH will change the number format to 10-digit, by adding the area code **555**. Another press on KEY\_HASH will change the number format to 11-digit, by adding a "1" in front of the number. A further press on KEY\_HASH will change the number format back to 7-digit, **1234567**.

In other words, the number is changed in the following sequence:

**1234567** > **5551234567** > **15551234567** > **1234567** > ...

- an incoming call with 10-digit caller ID, **4441234567**, first press on KEY\_HASH will change the number format to 11-digit, by adding a "1" in front of the number. Another press on KEY\_HASH will change the number format to 7-digit, by removing **1444** from the number string. A further press on KEY\_HASH will change the number format back to 10-digit, **4441234567**.

In other words, the number is changed in the following sequence:

**4441234567** > **14441234567** > **1234567** > **4441234567** > ...

- an incoming call with 11-digit caller ID, **13331234567**, first press on KEY\_HASH will change the number format to 7-digit, by removing **1333** from the number string. Another press on KEY\_HASH will change the number format to 10-digit, by adding back its area code **333**. A further press on KEY\_HASH will change the number format back to 11-digit, **13331234567**.

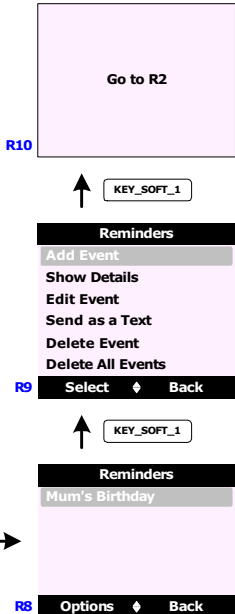
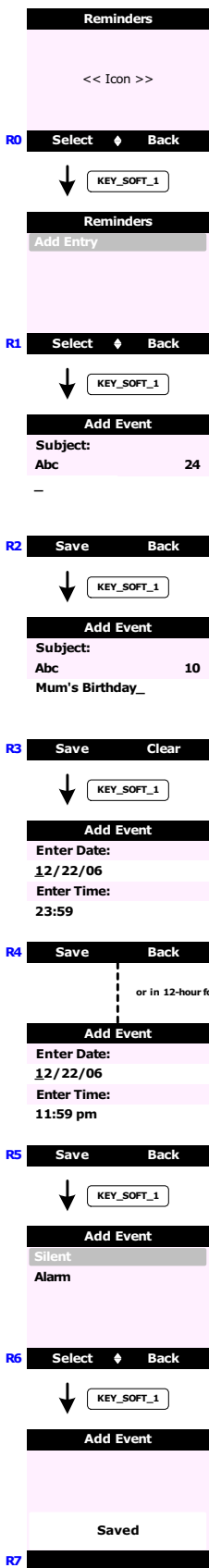
In other words, the number is changed in the following sequence:

**13331234567** > **1234567** > **3331234567** > **13331234567** > ...

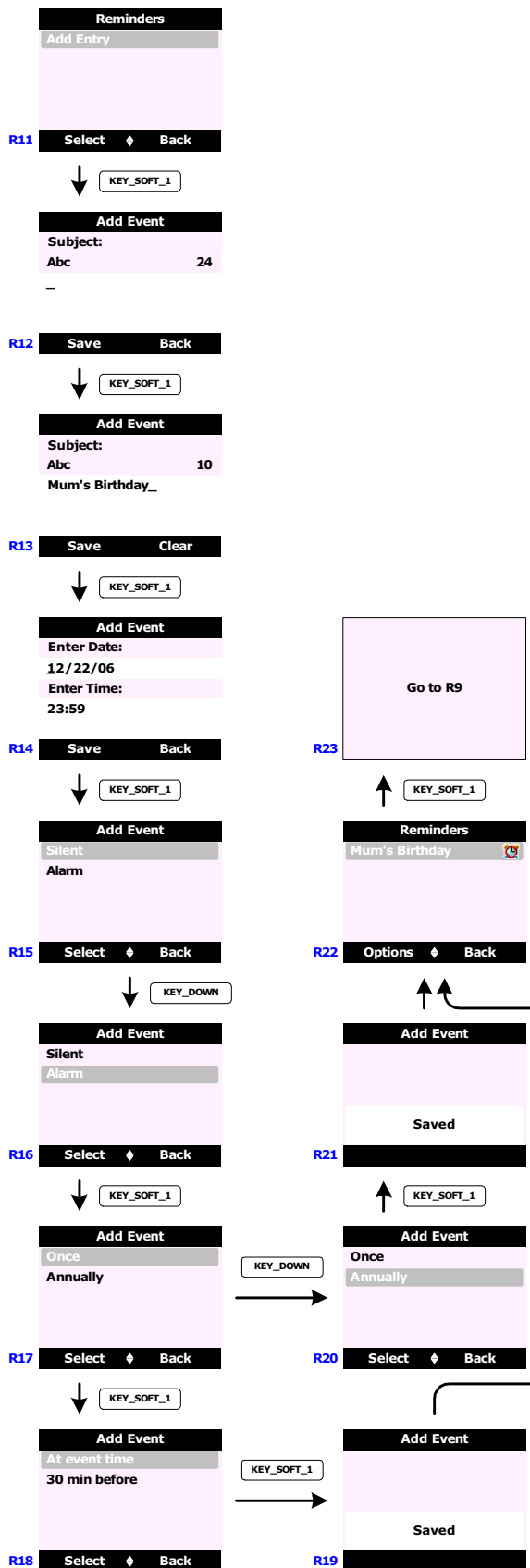
6. If the number format is other than the 7 / 10 / 11-digit, pressing KEY\_HASH will emit an error tone and no change is made the number string.

# REMINDERS

## Add Event (Silent)

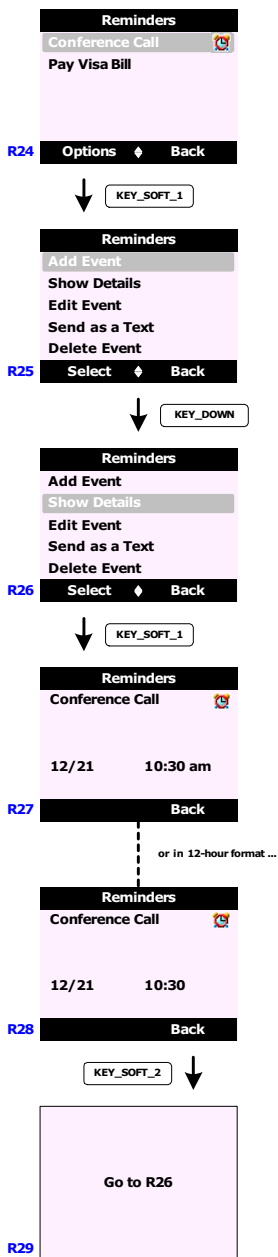


## Add Event (Alarm)

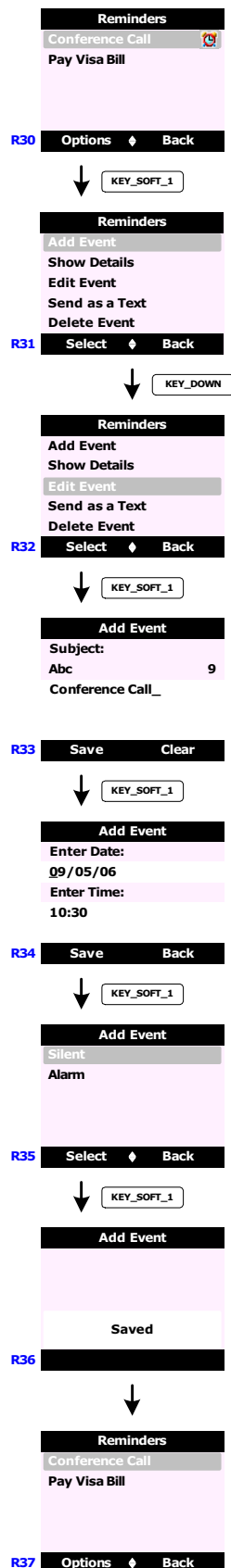


## REMINDERS (cont.)

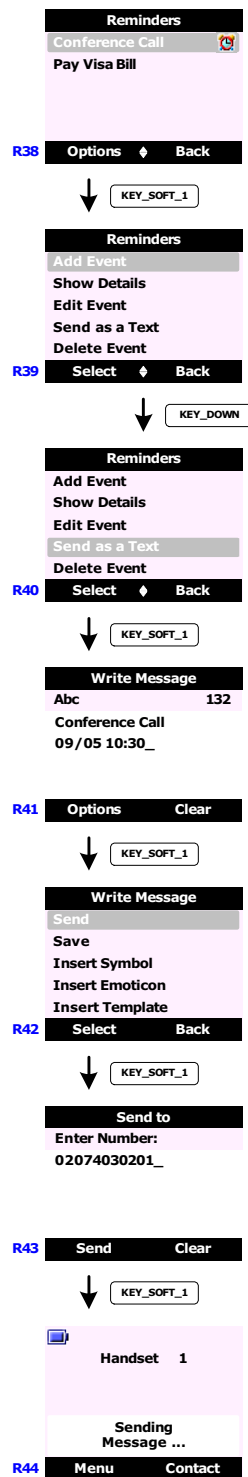
### Show Details



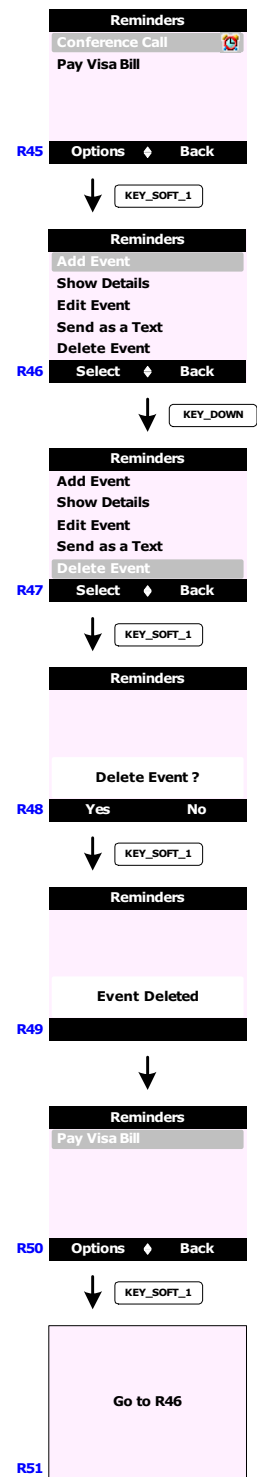
### Edit Event



### Send as a Text

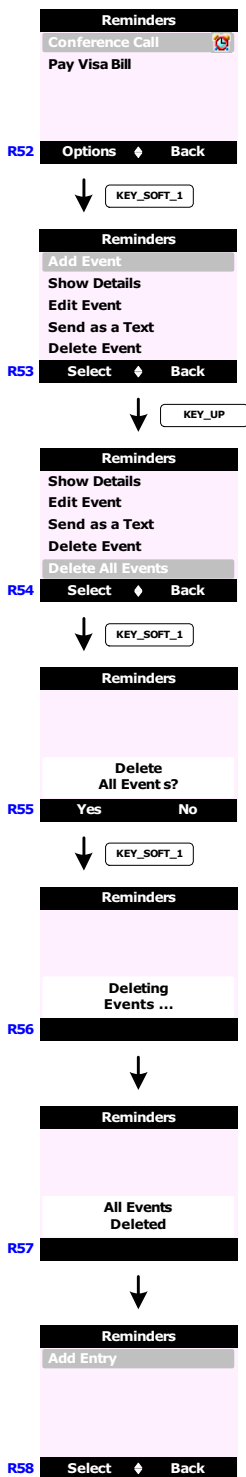


### Delete Event

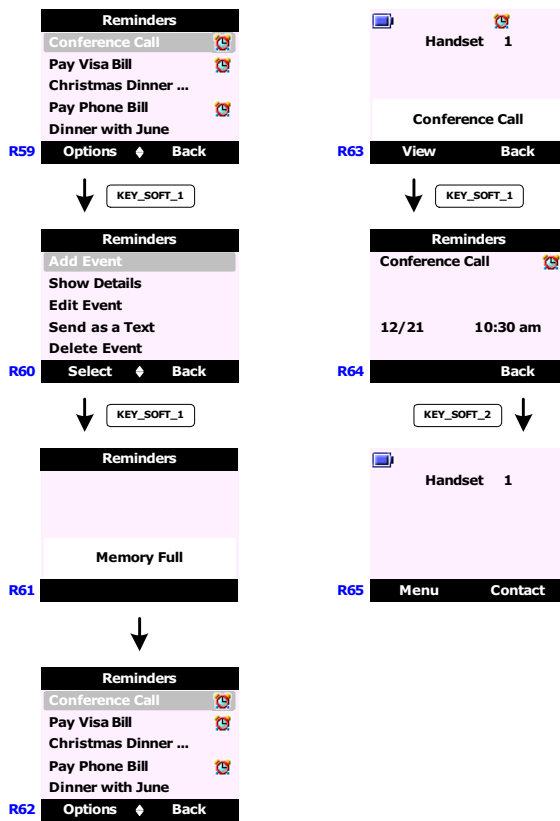


## REMINDERS (cont.)

### Delete All Events



### Additional screens:

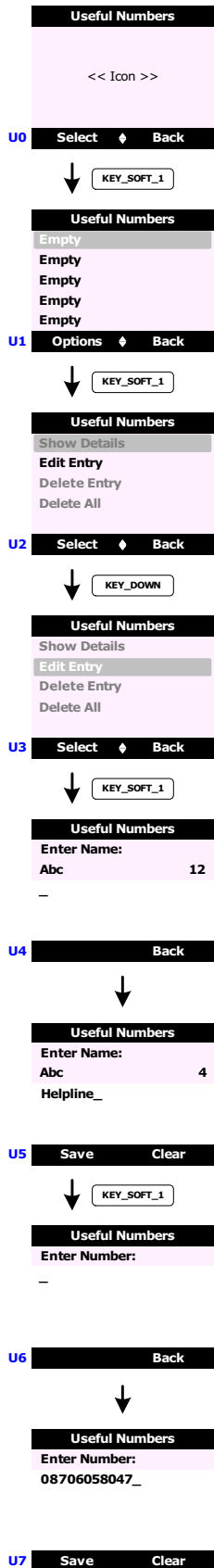


### Notes:

- Up to 5 events can be stored in **Reminders**.
- Reminders** entries are stored in the handset.
- The event subject can be up to 24 characters long.
- When sending an event as a text - the event details and time are pre-entered in to the "**Write Message**" screen (see screen R41).
- When appointment time is reached, the display is presented as per screen R63 whether an alarm has been set for the event or not.  
If no alarm is set - the reminder subject will be turned on at the appointment time.  
If an alarm is set - the reminder subject will be turned on with the alarm icon on the dashboard flashing and the alarm tone emitted.  
At this time the softkeys are labelled as **View** (SOFT\_KEY\_1) and **Back** (SOFT\_KEY\_2), see screen R63.
- As per alarm clock - the alarm will continue to sound for 1 minute. Pressing either **View** (SOFT\_KEY\_1) and **Back** (SOFT\_KEY\_2) will stop the ringing alarm.
- Pressing **View** (SOFT\_KEY\_1) will take the user directly to the event details screen (see screen R64).
- Pressing **Back** (SOFT\_KEY\_2) at screen R63 will take the user back to the idle display.
- When the alarm sounds if no attempt was made to stop the ringing - the ringing will timeout after 1 minute leaving the reminder subject on handset display.

# USEFUL NUMBERS

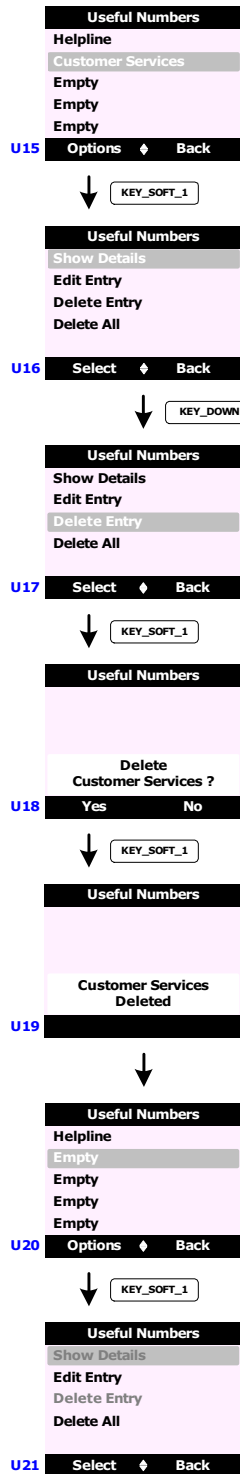
## Add/Edit Entry



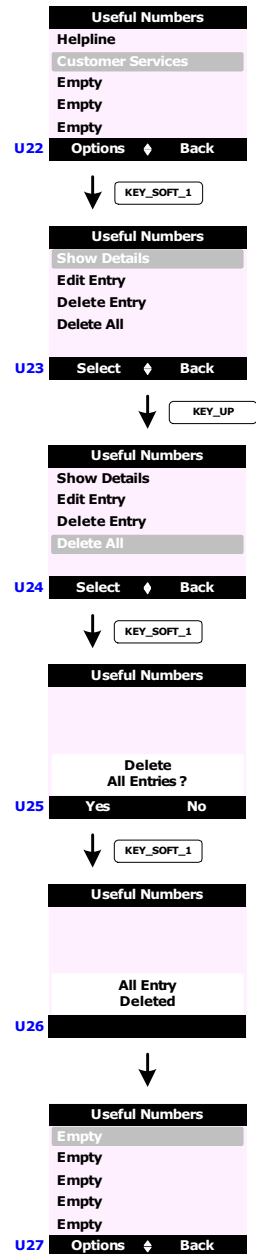
## Show Details



## Delete Entry



## Delete All



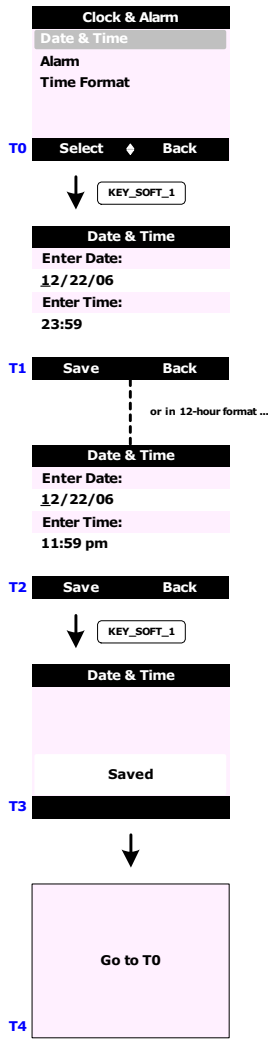
## **USEFUL NUMBERS (cont.)**

### **Notes:**

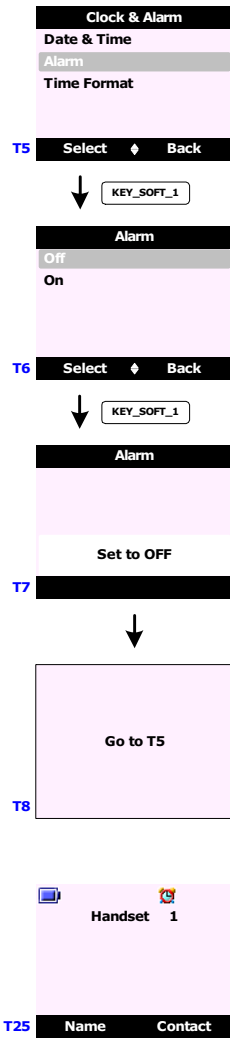
1. Users can store up to 22 entries in **Useful Numbers** depending on the EEPROM size used.
2. Each useful number name field can store up to 12 characters and 24 digits for the number field.
3. Useful Numbers entries are stored in the handset.
4. When viewing **Useful Numbers** list - use KEY\_UP and KEY\_DOWN to scroll through the list. Press KEY\_TALK to dial highlighted name.
5. When an entry is empty but all entries are empty - only **Edit Entry** option is offered (see screen U2). All other options are greyed out.
6. When an entry is empty but not all entries are empty - only **Edit Entry** and **Delete All** options are offered (see screen U21). All other options are greyed out.
7. Users can restore default **Useful Numbers** when the product is reset. Any new entries added are deleted.
8. There is no alphabetic listing in **Useful Numbers** menu but once an entry is deleted - it is replaced by **Empty**.

# CLOCK & ALARM

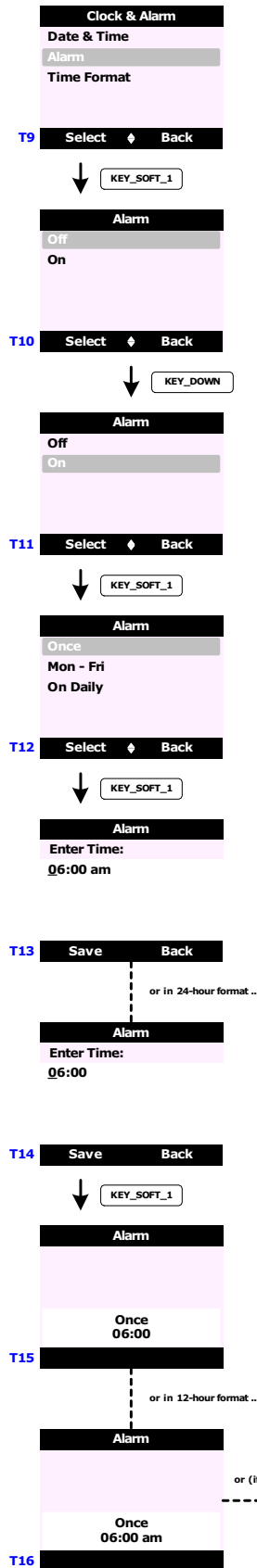
## Date & Time



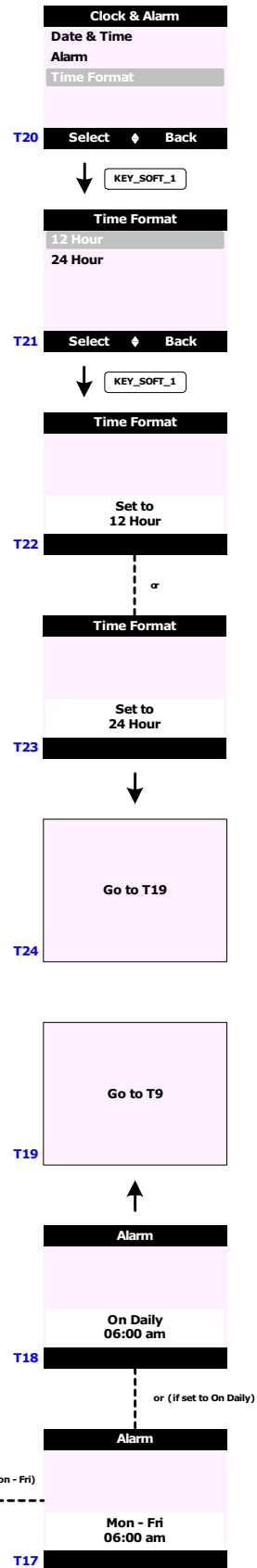
## Alarm (OFF)



## Alarm (ON)



## Time Format

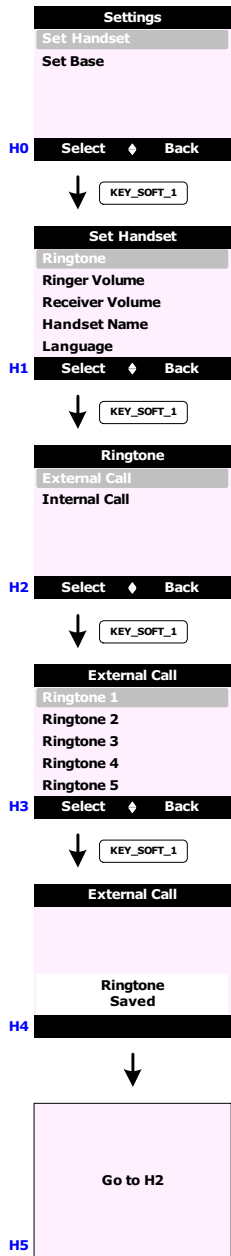


1. Date and time information is held on both handset and base.
2. If the base loses its power, any available handset with the latest time will update the base clock when the base power comes back on.
3. If the handset loses its power and the date and time information is reset, once it has power and is linked to the base - the base will update the handset clock.
4. The time and date is transferred to the handsets as part of the registration protocol.
5. All handset in range clock is updated whenever an incoming CLI call is received.
6. The user can manually set the time and date if they do not subscribe to CLI via **Clock & Alarm** menu on one of the handsets.  
The time and date on any other handsets is updated the next time the handset is in communication with the base.
7. **Time Format** menu can be hidden in EEPROM.
8. The time format setting is personal to each handset.
9. The time and date is also used for the answering machine functionality.
10. Alarm setting is personal to each handset.
11. When the alarm is set, the alarm set icon is presented on the dashboard on the idle screen (see screen T25).
12. The base does not ring when the alarm goes off.

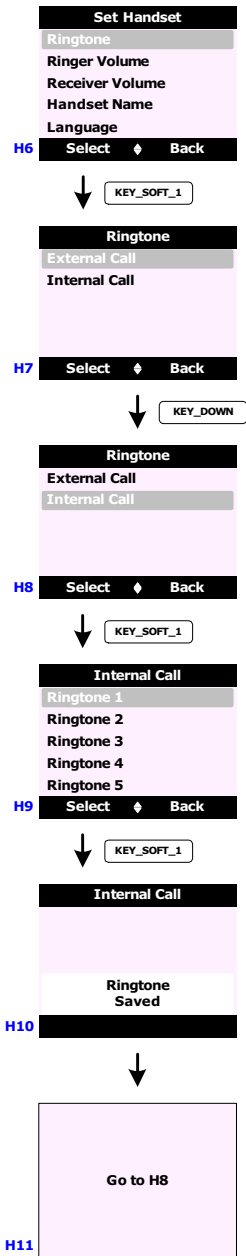


# HANDSET SETTINGS

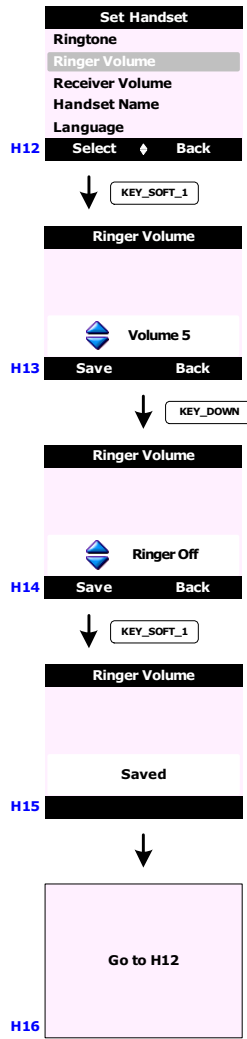
## Ringtone (External Call)



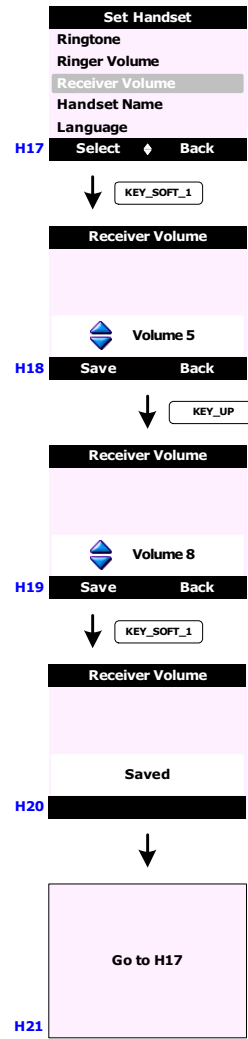
## Ringtone (Internal Call)



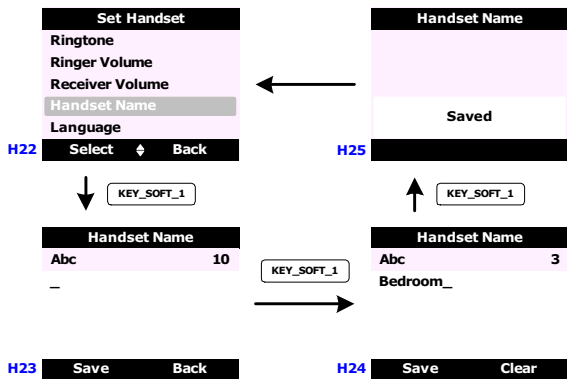
## Ringer Volume



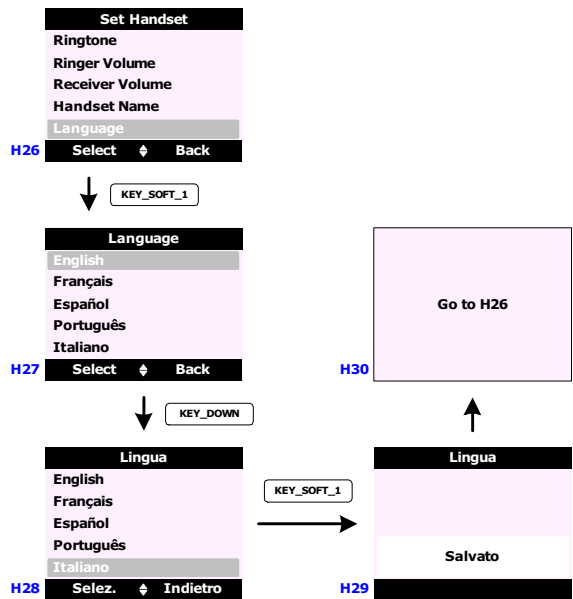
## Receiver Volume



## Handset Name

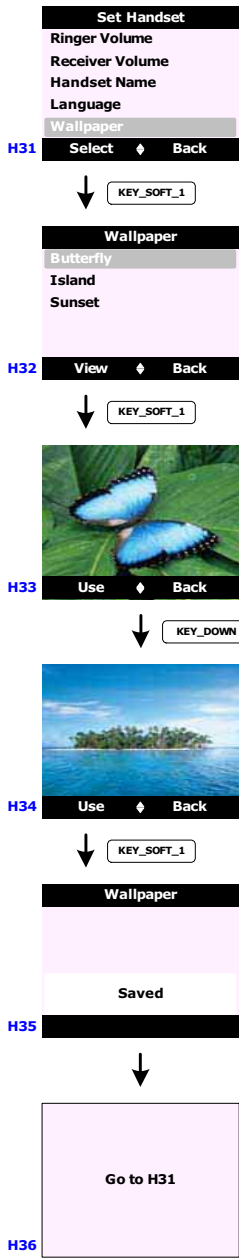


## Language

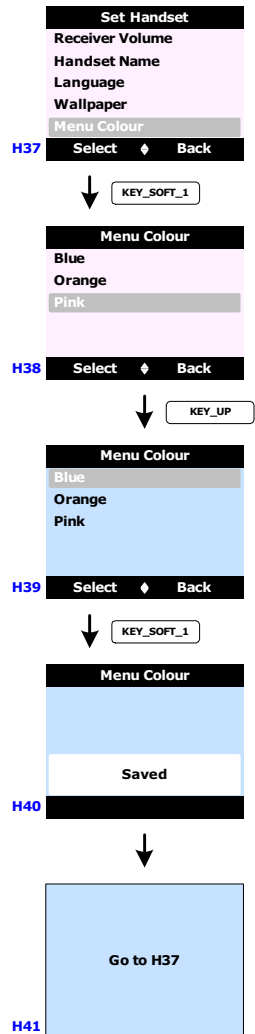


**HANDSET SETTINGS (cont.)**

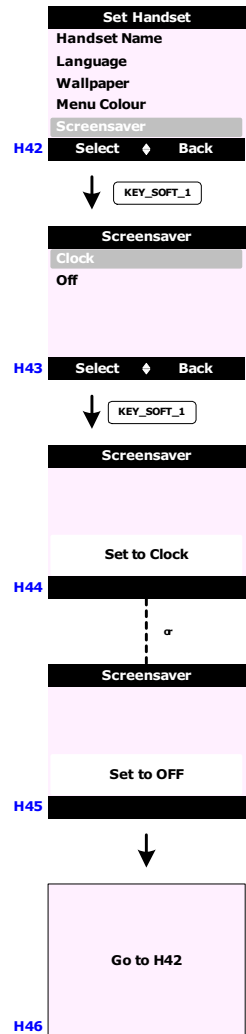
**Wallpaper**



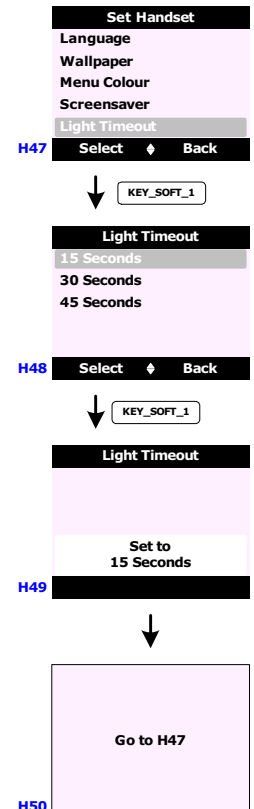
**Menu Colour**



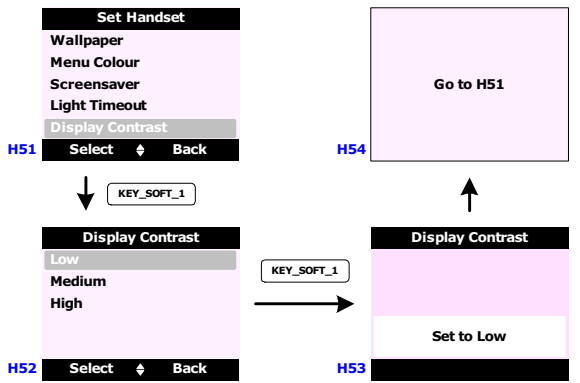
**Screensaver**



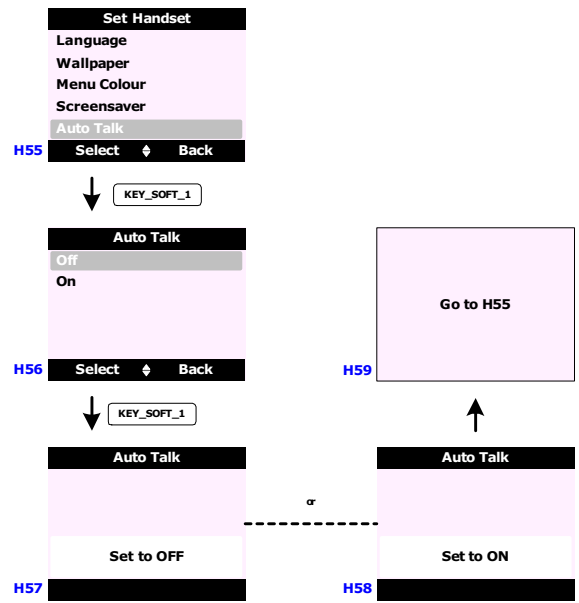
**Light Timeout**



**Display Contrast**

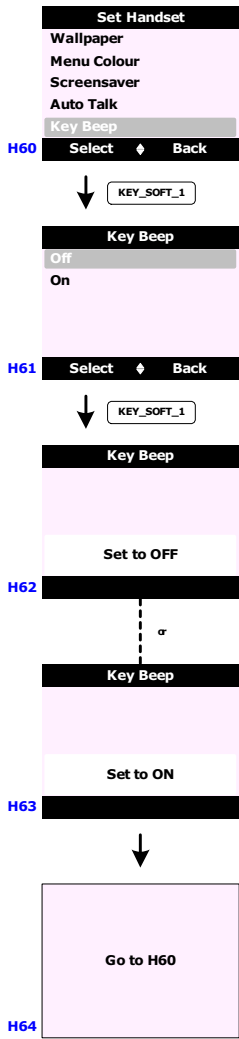


**Auto Talk**

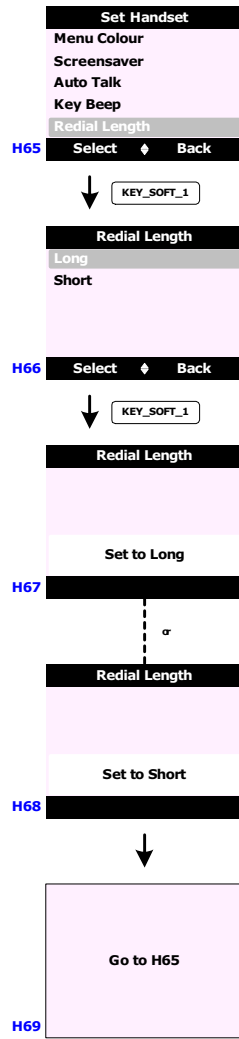


# HANDSET SETTINGS (cont.)

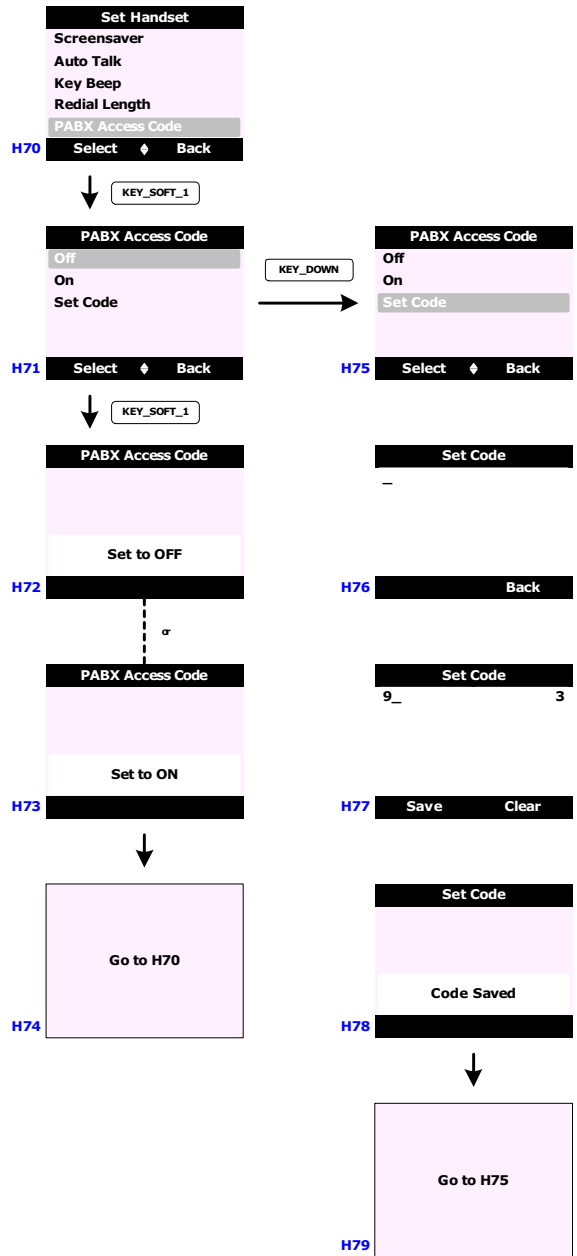
## Key Beep



## Redial Length



## PABX Access Code



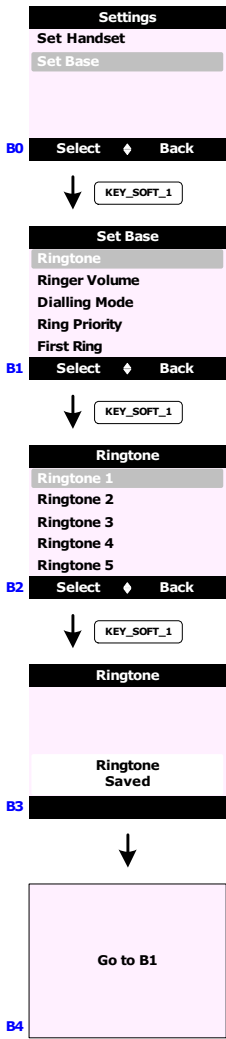
## HANDSET SETTINGS (cont.)

### Notes:

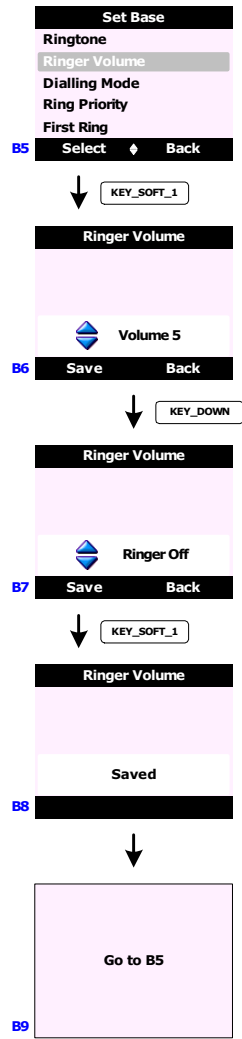
1. There are 10 (8 channel polyphonic) handset ringtones and these are stored in flash.
2. When changing the handset ringtone, if a different ringtone is highlighted, a sample of the ringtone begins to play and loops at the handset at the current volume setting (or minimum volume if the volume is set to off) until user intervention or the handset times out.
3. There are 5 levels for handset ringer volume.
4. When changing the handset ringer volume, if a different volume level is highlighted, the current handset external ringtone begins to play at the highlighted volume and loops until user intervention or the handset times out.
5. If the user turns the handset ringer volume to "Off", when the handset returns to idle the ringer off icon is presented on the dashboard in the idle state.
6. There are 8 levels for handset / handsfree earpiece volume levels.
7. Handset Name can be up to 10 characters long. The user can save an empty handset name.
8. There can be up to 5 languages and these languages are stored in flash.
9. There are 3 wallpapers and these are stored in flash.
10. On screen H33, press KEY\_UP and KEY\_DOWN to scroll through pictures in preview mode.
11. It is not possible for the user to turn off the audible tones for confirmation, error, low battery or out of range.
12. **PABX Access Code** menu can be hidden in EEPROM.
13. PABX access code can be up to 4 digits long.
14. The user can set the access code (including pauses) to be placed before any number dialled from that handset from the phonebook or calls lists when the product is used behind a switchboard or an alternative carrier is used.  
  
When dialling via the keypad, the code has to be dialled manually.
15. When PABX access code is set to ON, the access code should not be stored as part of the number in any of the calls lists, dialled or received.
16. When the access code is being used, it should be displayed at the beginning of any number being dialled on the dialling screen.
17. The light timeout setting applies to both the keypad and display backlight together.

# BASE SETTINGS

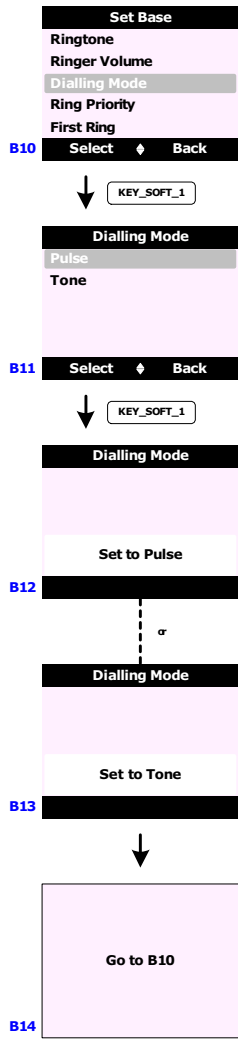
## Ringtone



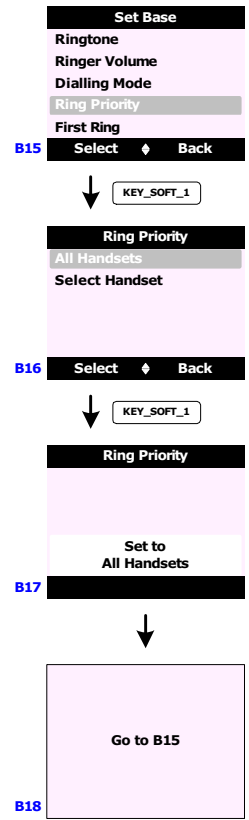
## Ringer Volume



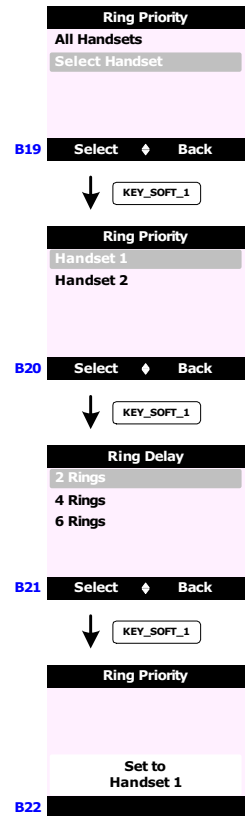
## Dialling Mode



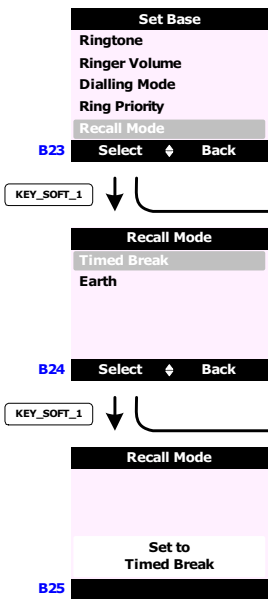
## Ring Priority (All Handsets)



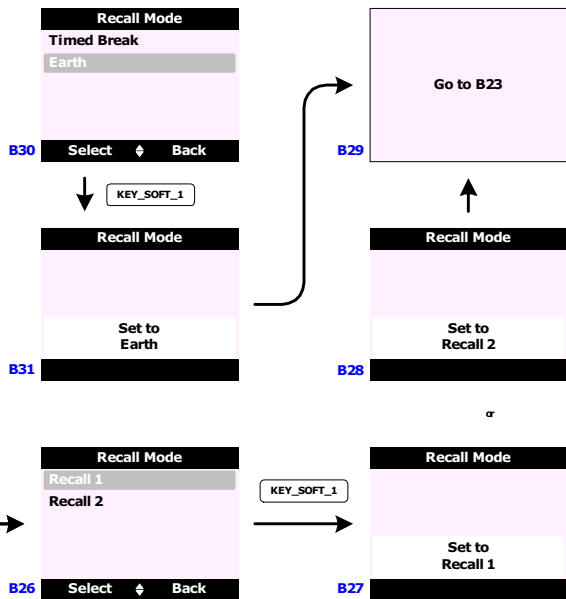
## Ring Priority (Select Handset)



## Recall Mode (Timed Break)

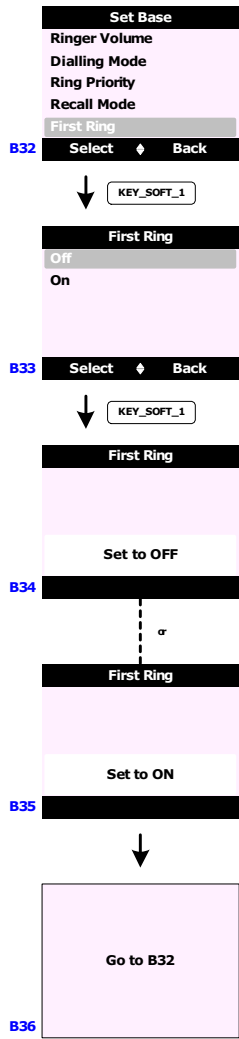


## Recall Mode (Earth)

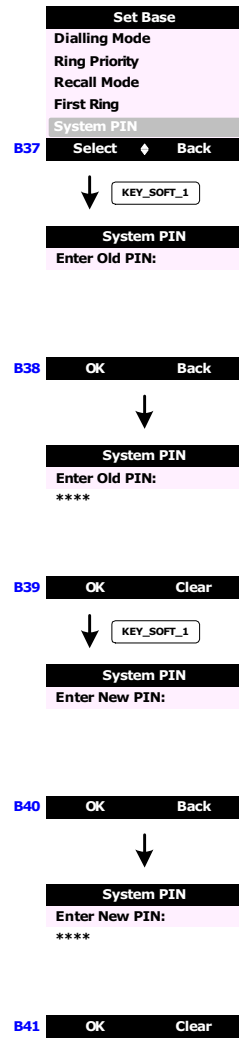


**BASE SETTINGS (cont.)**

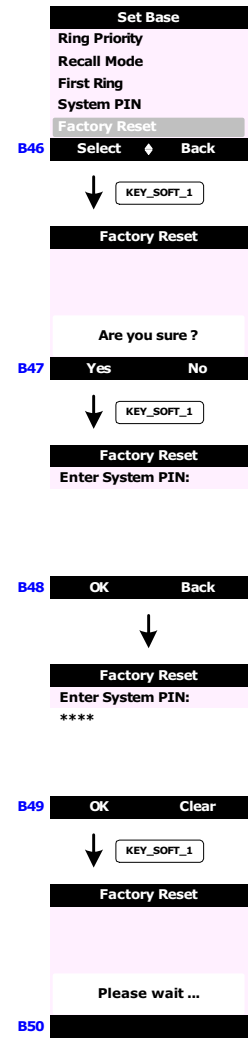
**First Ring**



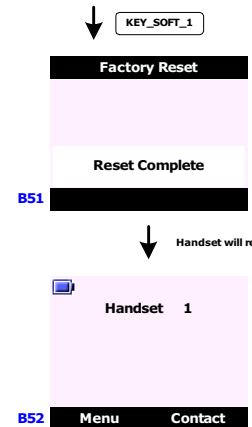
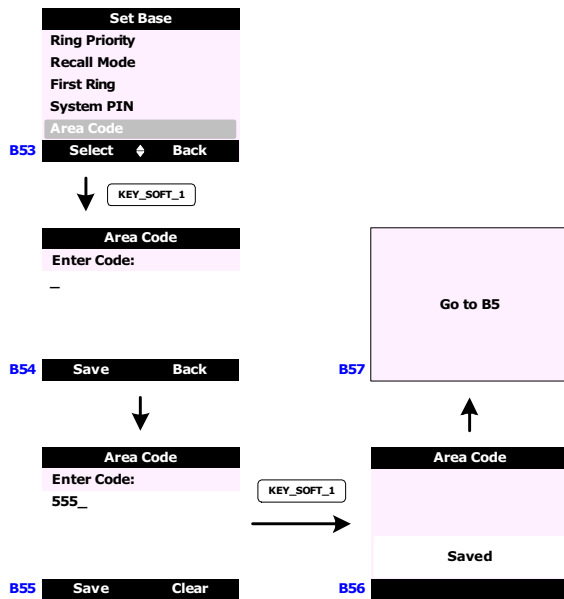
**System PIN**



**Factory Reset**



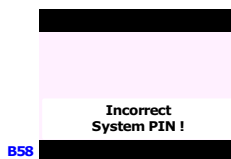
**Area Code**



## BASE SETTINGS (cont.)

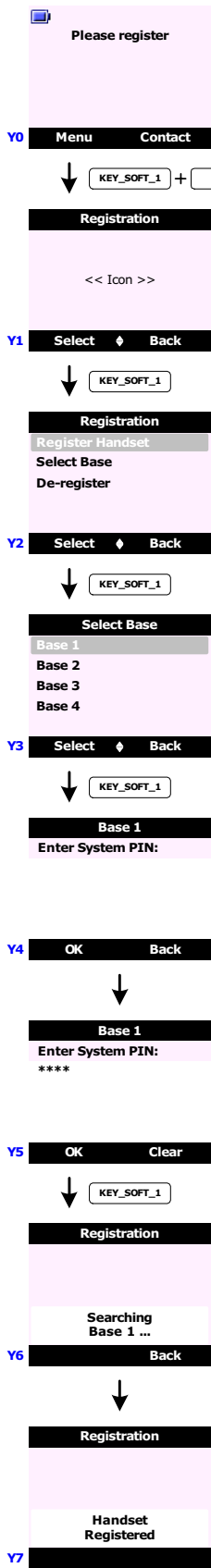
### Notes:

1. Base **Ringtone** and **Ringer Volume** menus can be hidden in EEPROM.
2. There are 5 (monophonic) base ringtones and these are stored in ROM.
3. When changing the base ringtone, if a different ringtone is highlighted, a sample of the ringtone begins to play and loops at the base at the current volume setting (or minimum volume if the volume is set to off) until user intervention or the handset times out.
4. There are 5 levels + OFF for base ringer volume.
5. When changing the base ringer volume, if a different volume level is highlighted, the current base ringtone begins to play at the highlighted volume and loops until user intervention or the handset times out.
6. **Dialling Mode** menu can be hidden in EEPROM.
7. **Ring Priority** menu can be hidden in EEPROM.
8. When setting **Ring Priority** - only registered handsets are offered on screen B20).  
If the **Ring Priority** is set to Handset 3 with two rings delay. Handset 3 will ring twice before other handsets start to ring.  
**Ring Priority** only applies to handsets not base.
9. **Recall Mode** menu can be hidden in EEPROM.
10. It must be possible to hide the **Earth** option in EEPROM.  
If **Earth** option is hidden - **Recall 1** and **Recall 2** are offered when **Recall Mode** is selected.  
If the two recall times set under **Recall 1** and **Recall 2** are the same - only **Timed Break** and **Earth** are offered (there is no sub-menus for **Recall 1** and **Recall 2**).  
When **Earth** option is hidden and the two recall times are the same - the **Recall Mode** menu is hidden.
11. **First Ring** menu can be hidden in EEPROM.
12. **System PIN** can be preset and the menu can be hidden in EEPROM.
13. If the system PIN code is entered incorrectly at any time - the display prompts "Incorrect System PIN" (see screen B58).
14. When the product is reset it has the effect of returning all settings back to factory defaults. This does not affect the phonebook, calls list, or users' data and handset registrations.
15. **Area Code** menu can be hidden in EEPROM. This feature is related to US callback area code management.

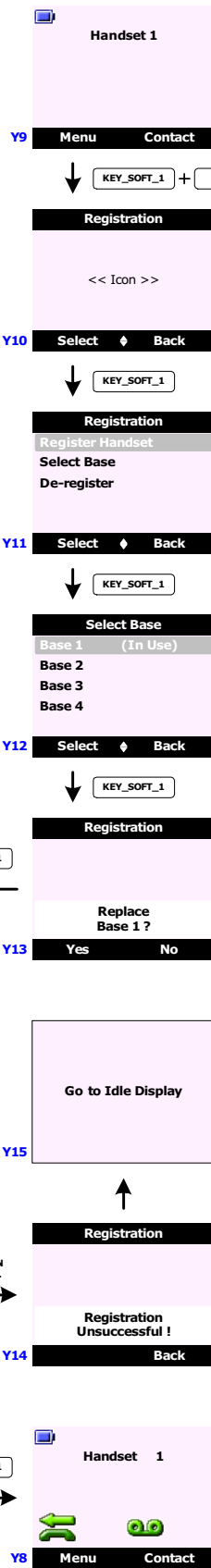


# REGISTRATION

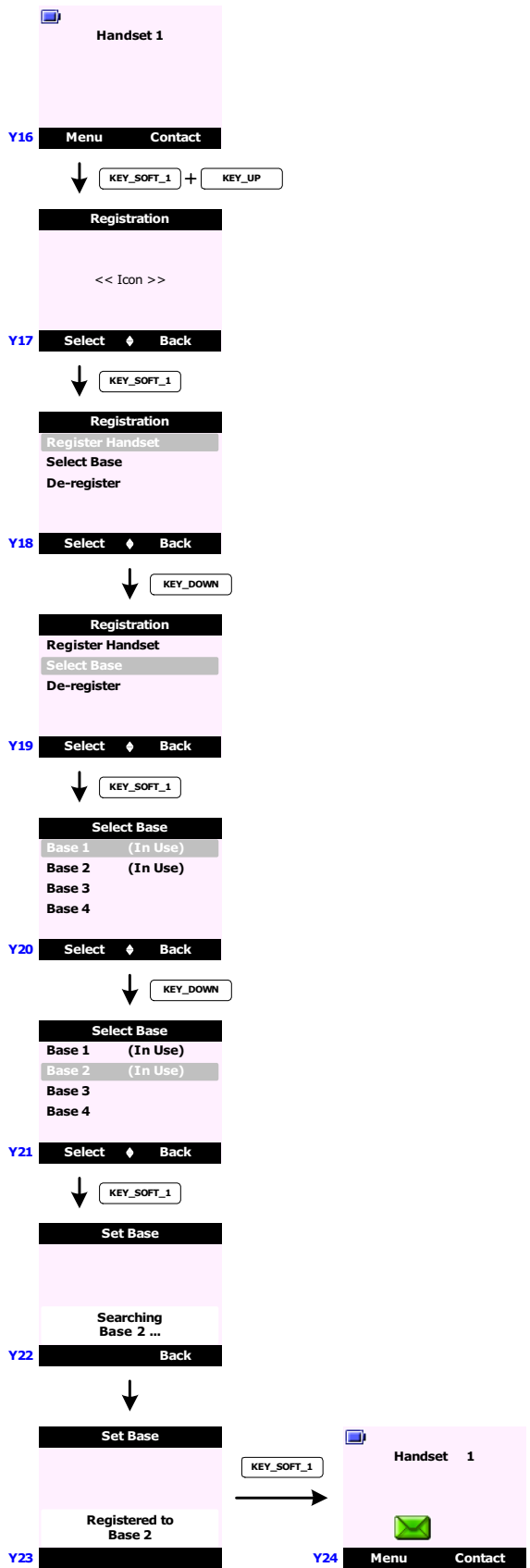
## Register Additional Handset



## Register Handset (replacing base)



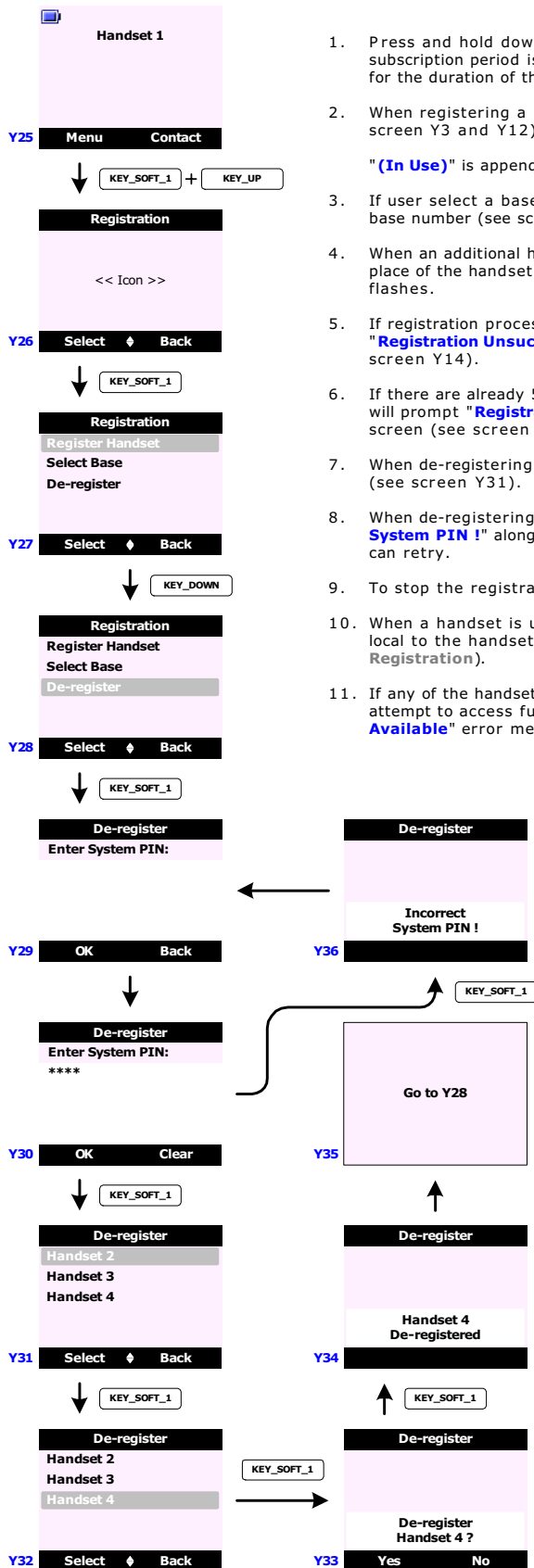
## Select Base





## REGISTRATION (cont.)

### De-register Handset



1. Press and hold down KEY\_PAGE for 3 seconds to put the base in subscription mode, the subscription period is offered for 1 minute. The Power In Use / Event LED on the base flashes for the duration of the registration period.
2. When registering a handset - all base numbers are presented on the select base screen (see screen Y3 and Y12).  
"(In Use)" is appended to the base number currently in use.
3. If user select a base already in use - the display prompts "**Replace Base X ?**" where X is the base number (see screen Y13) and the registration is overwritten with the new one.
4. When an additional handset is first powered up, "**Please register**" is flashing on the display in place of the handset name and number (see screen Y0). The range icon (if enabled) also flashes.
5. If registration process failed (e.g, if wrong system PIN was entered) - the display prompts "**Registration Unsuccessful !**" along with a warning tone and returns to the idle screen (see screen Y14).
6. If there are already 5 handsets registered to the base, the registration will fail and the display will prompt "**Registration Unsuccessful !**" along with a warning tone and returns to the idle screen (see screen Y14).
7. When de-registering a handset - all registered handsets except the one being used are offered (see screen Y31).
8. When de-registering a handset if wrong system PIN is entered - the display prompts "**Incorrect System PIN !**" along with an error tone and return to "Enter System PIN" screen so the user can retry.
9. To stop the registration process at any time press **Back** (KEY\_SOFT\_2) or KEY\_END.
10. When a handset is unregistered - the user can access the handset **Contact** list, and functions local to the handset (**Calls List, Set Handset, Clock & Alarm, Reminders, Useful Numbers** and **Registration**).
11. If any of the handsets are registered to another manufacturers or non compatible base, any attempt to access functionality which is not local to the handset will result in the "**Not Available**" error message being presented.