

ATTACHMENT M – USER’S MANUAL

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


1 General Principles

NOTE Throughout the document the term “Does nothing” is used in the diagrams to describe a situation in which a button press causes only a key beep tone and the illumination of the backlight.

1.1 Common keys


The following keys are referenced throughout this specification document. (The **INFO** and **CLEAR** keys on the actual SURF1000 are abbreviated as “c” and “i.”) The keys perform the functions described in Table 1-1 during most procedures.

Table 1-1 Common keys

Key	Description
	During a user programming process (examples: menus, memory features, and so on): <ul style="list-style-type: none">■ Pressing once – goes back one level■ Pressing and holding – goes back to the standby display without saving entered data (when applicable) When entering digits or alpha characters: <ul style="list-style-type: none">■ Pressing once – erases one digit (or character)■ Pressing and holding – erases all digits (characters)
	Exits completely out of a state to standby mode (without saving data when applicable). Ends a call.
	During digit entry, provides: <ul style="list-style-type: none">■ Brief feature descriptions■ Hard/time pauses■ Hyphens During alpha entry, provides: <ul style="list-style-type: none">■ Punctuation characters During standby display, provides: <ul style="list-style-type: none">■ NAM name and phone number Accessible during a call.
	Places a call.
[OK]	Accepts the user's selection and exists the process.
[NEXT] volume keys, #, *	Scrolls through any available choices.

A “long keypress” tone will sound for select keys under certain conditions. The standard keypress occurs when a key is pressed (for example, long hold of **CLEAR** from a menu display) and then a longer secondary tone sounds when the handset reacts to the keypress (for example, long **CLEAR** results in the display of the standby screen and long tone sounds). The keys in Table 1-2 have a secondary “long” tone.








Table 1-2 Keys having a secondary “long” tone

Key	Description
	Press and hold to exit menu displays to standby. Long tone at standby.
Digit KEYS	For “one-touch” dialing, a press and hold of a digit key (tone 1) is followed by call origination (longer secondary tone). If this feature is disabled, the “One touch dialing restricted” message is displayed.

1.2 Display indicators

Display indicators (icons), as shown in Table 1-3, are located at the top of the phone display unless otherwise indicated. Different indicators appear based on each particular procedure.

Table 1-3 Display indicators

Icon	Name	Description
	Digital indicator	Phone is operating in digital mode during a call or standby mode
	Signal strength (RSSI)	Current signal strength based on the location of the phone
	No service	Phone is not receiving a signal from the system
	In use	Call is in progress (absence of the phone icon indicates standby mode)
	Roaming	Phone is outside of its home area
	Text/voice message	There is a text or voice mail message waiting.
	Battery level	Remaining battery charge (a larger amount of black indicates a higher battery charge level)

2 Basic Functions

2.1 Turn phone on

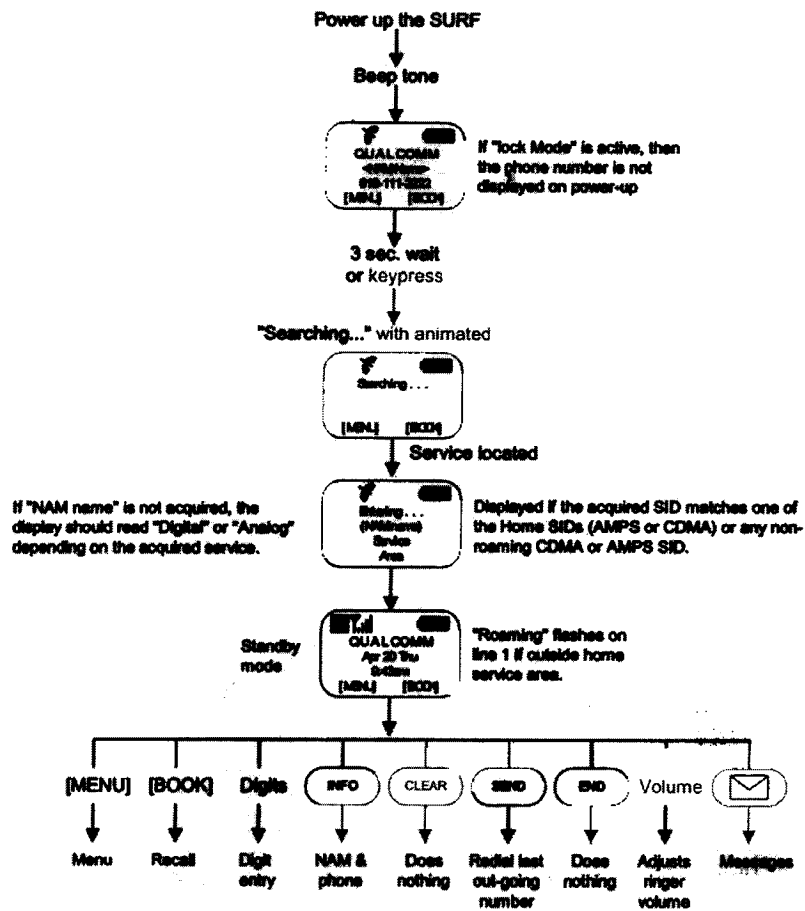


Figure 2-1 Turn phone on

When the SURF is powered up, a single beep will sound. The time and date will be displayed if the service is supported by the carrier, otherwise lines two and three will be blank.

2.2 Turn phone off

To power-down the SURF, press the Power key.

1. The user will first see a message indicating how to turn the power off.
2. After about 1.5 seconds, the user will hear a beep (tied to key beep volume level), the LED will flash, and another message will be displayed confirming that the phone is powering off. This second message protects nonvolatile memory by inhibiting the user from removing the battery cover until the phone is off.
3. Then, reset the SURF and turn off the power supply.

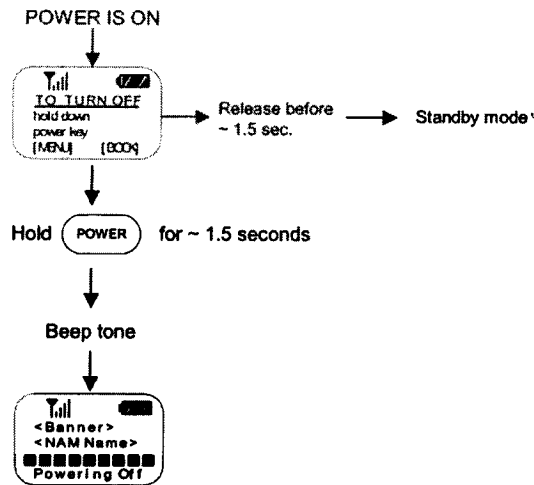


Figure 2-2 Turn phone off

2.3 Standby mode

This is the phone's basic mode of operation where all processes start. Animation of the ellipsis in "Searching..." will occur at 500-msec intervals.

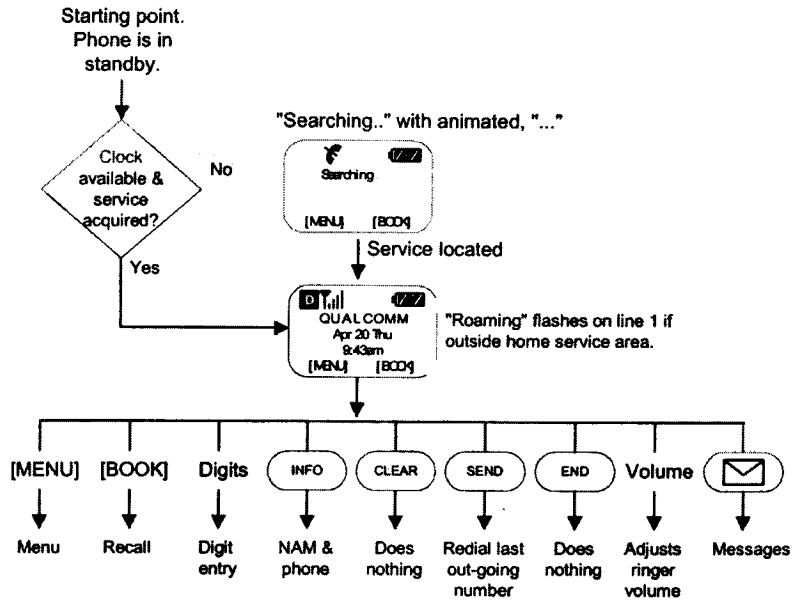


Figure 2-3 Standby mode

NOTE When the volume is adjusted from standby using the volume keys, increasing the volume will cause the phone to emit tones (no ringer sample), which increases in intensity. Decreasing the volume will not cause any tones or ringer samples to sound.

Table 2-1 provides the details of the priorities for displaying the various text messages in standby mode. Various display combinations are possible depending on which function or alert is currently active. The standard standby condition is displayed as the #4 priority.

Table 2-1 Text message display priority

Display	1 (Highest)	2	3 (Lowest)
Line 1	Searching...	ROAMING	BANNER
Line 2	- Ringer Off -	Date	Date
Line 3	- AutoAnswer -	Time	Time
Line 4	[UNLOCK]	[MENU] [BOOK]	[MENU] [BOOK]

There are additional displays that occur infrequently, but override all of the previously detailed displays. These text alerts include:

- “Maintenance Required” – lines 1 and 2
- “Now in Power Saving Mode” – lines 3 and 4
- Debug screen – lines 1, 2, and 3
- “Service Required” – lines 1 and 2
- “Missed Call” – refer to Section 6.2 and to SMS notification in Section 8.1

2.4 Standby with number

The Standby with Number function displays the duration of a call (flashing) along with the phonebook alpha tag and phone number (if caller ID is supported). The phone remains in Standby with Number for a 10-second time period (or until any key is pressed) when a call is:

- Originated via one-touch dialing (See Section 5.1 for more information), then terminated by **END** or call fail
- Originated via speed-dialing (See Section 5.1 for more information), then terminated by **END** or call fail
- Originated via manual-digit entry (See Section 5.1 for more information), then terminated by **END** or call fail
- Originated via the memory list (See Section 7.3 for more information), then terminated by **END** or call fail
- If a number is entered into the scratchpad during a call and terminated by **END**, the scratchpad number is displayed
- The user can dial the number that is on the display by pressing **SEND**

4 Digit and Alpha Ent

3.1 Manual entry and deletion of digits

- Up to 32 digits can be entered at one time. (Manual hyphens and pauses count as one digit each.)
- If the **END** key is pressed, the display will return to standby.
- If the user presses and holds **CLEAR** for more than one second, all of the digits or text characters will be deleted and the cursor will become right-aligned (digits) or left-aligned (text) if it is not already in that position. For digit or alpha editing, pressing and holding **CLEAR** a second time will return to standby when there are no characters on the display.
- When enabled, auto-hyphenation automatically inserts hyphens (unless you enter a manual hyphen) according to these rules: 1, 12, 123, 1234, 1-2345, 12-3456, 123-4567, 1-234-5678, 12-345-6789, 123-4567-890, 1-234-567-8901.

NOTE With regard to the find function: if a # or * is entered at any point during digit entry, the **[BOOK]** soft key will change to **[FIND]**. This allows the user to locate numbers containing the # or * characters.

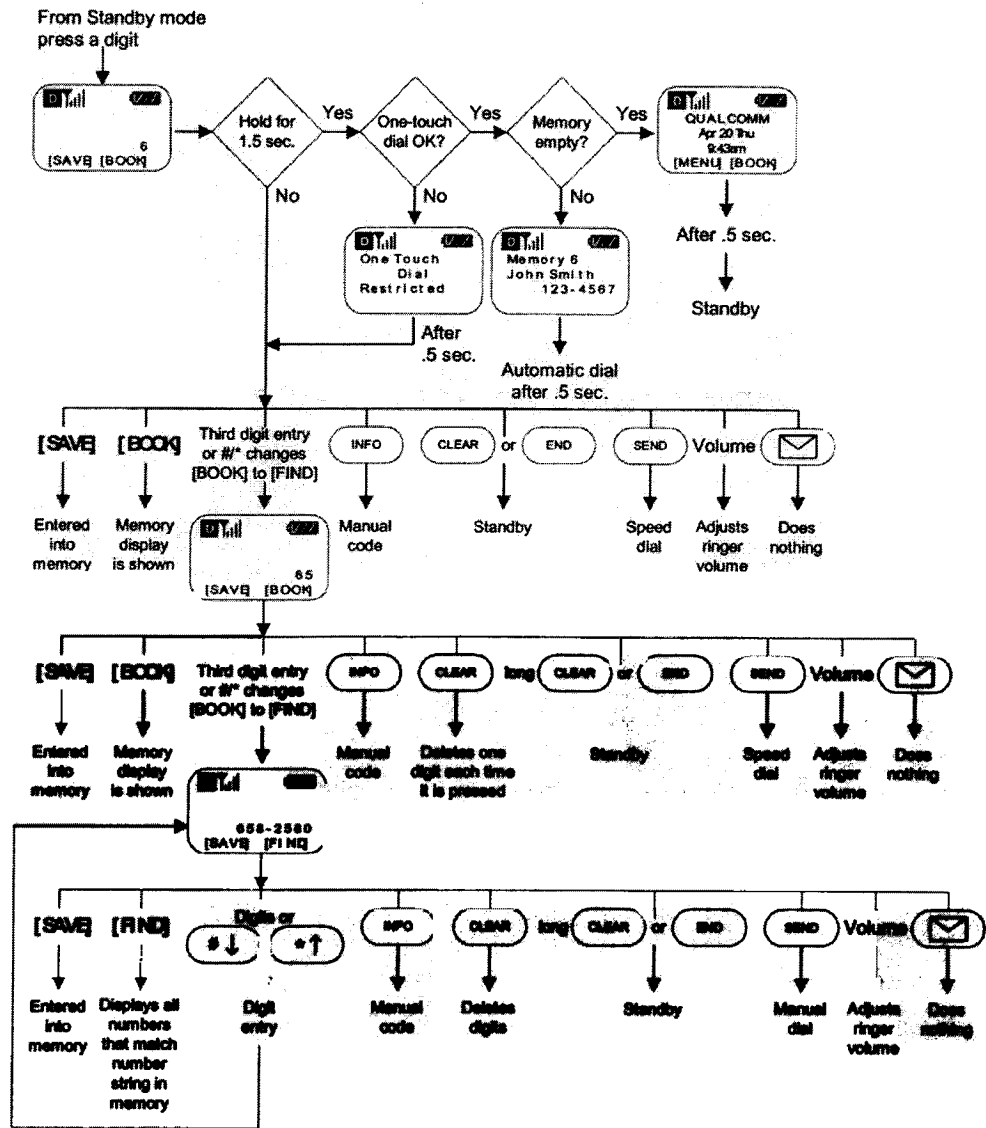


Figure 3-1 Manual digit entry and deletion

3.2 Insertion of pauses and hyphens (manual codes)

The user can enter two types of pause codes (hard and timed) and a hyphen when entering phone numbers.

- Each pause or hyphen is counted as one digit.
- When the phone dials a number with a hard pause, it stops dialing until **[RESUME]** is pressed. After pressing **[RESUME]**, dial tones are transmitted.
- Timed pauses operate in a manner similar to the hard pause; however, instead of the user pressing **[RESUME]**, the handset stops dialing for 2 seconds, and then resumes the tone transmission.
- Manual hyphens can be entered. All auto-hyphen activity is deactivated when a manual hyphen is inserted. A manual hyphen is counted as 1 of the 32 digits allowed.

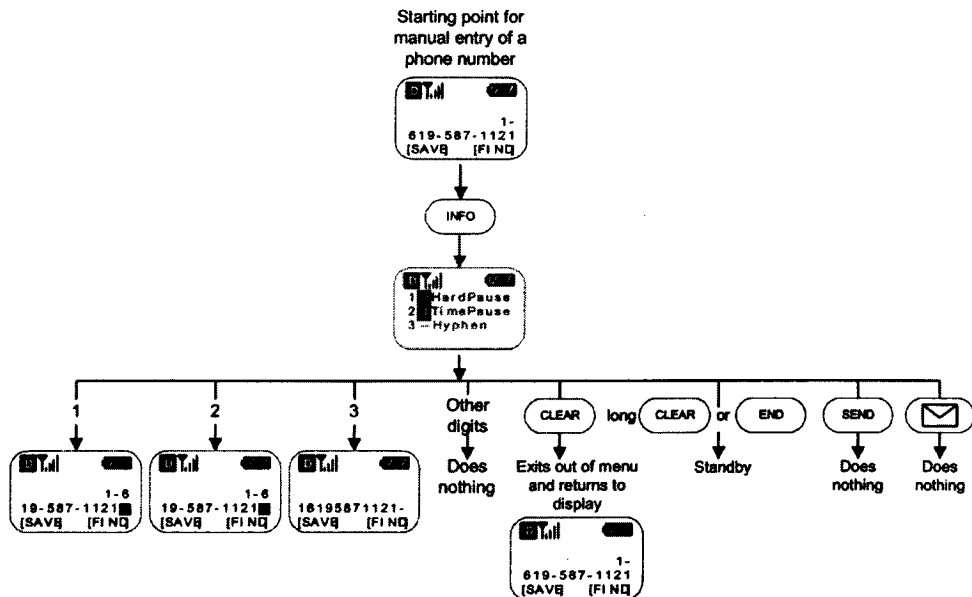


Figure 3-2 Manual pause and hyphen insertion

3.3 Number editing

When a number is displayed in the phonebook, the user can edit any part of the number or add additional numbers either by pressing the **[EDIT]** soft key or by a single press of the 1-9 or #/* keys (although a keypress will not produce a character on the display).

When "Number Edit" mode is activated, a cursor prompt is displayed over the last digit of the number string. The cursor can be moved to the left or the right by using the volume keys. If moved to the right from the end of a number, the cursor will appear before the beginning of the number; no hard stop exists at the beginning or end of the number.

The Number Edit function is also accessible from the Call History list and the SMS callback number. Entrance into Number Edit mode for the Call History and SMS number entered is initiated by character entry. The handset has an insert editing capability, which is shown in Figure 3-3. Auto-hyphenation does not occur during Number Edit.

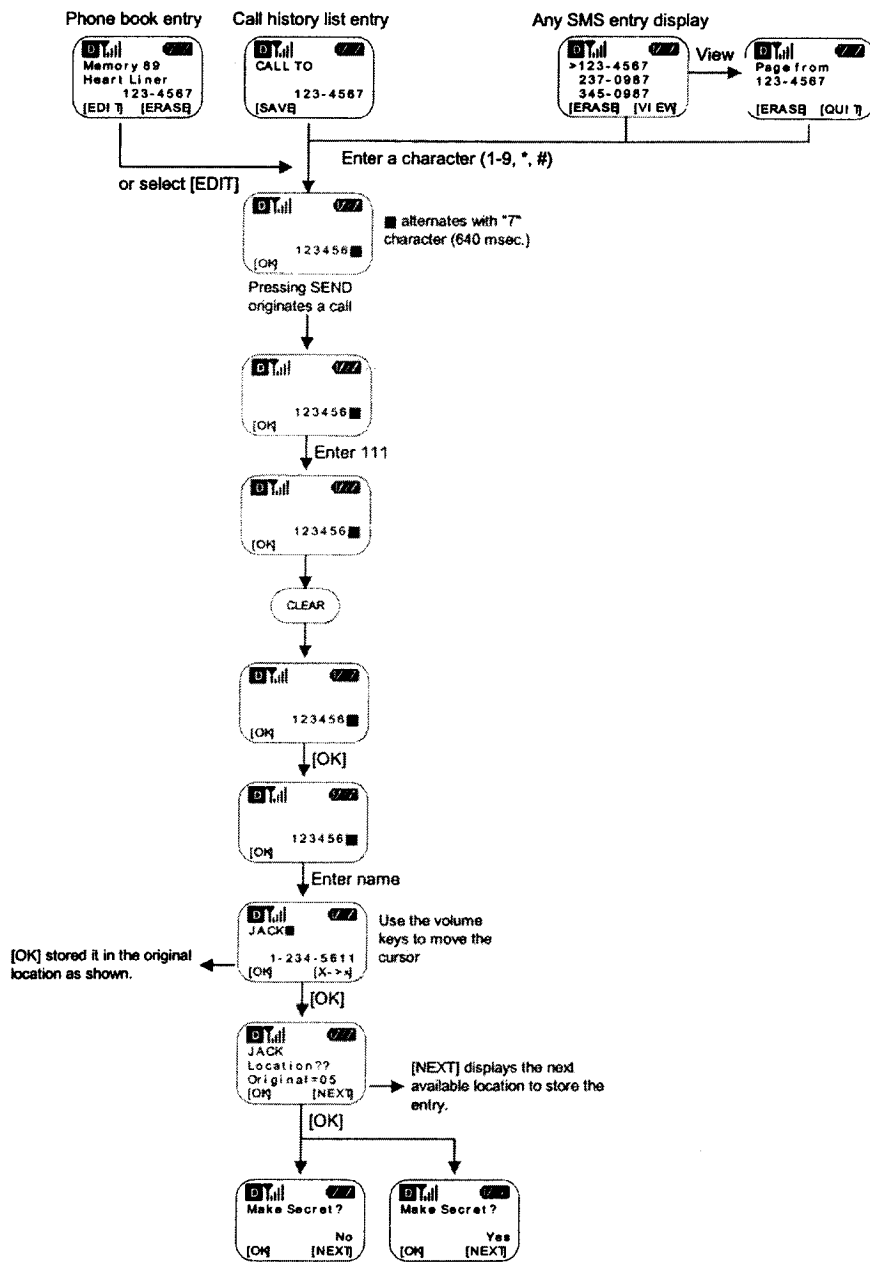


Figure 3-3 Number editing

3.4 Alpha entry

Alphanumeric entries correspond to those of a regular desk phone. To enter a name, press the key that is labeled with the corresponding letter. Press once to get the first letter, twice to get the second, three times to get the third, and four times to get the fourth letter for Q and Z. Two seconds after pressing a letter, the cursor moves to the right one character position. Scroll keys allow you to move manually left and right.

The text "Enter Name:" will appear on the display whenever alpha entry mode is active (that is, during initial storage or editing). All "phone number" information (such as the phone number during number storage) should clear during this mode.

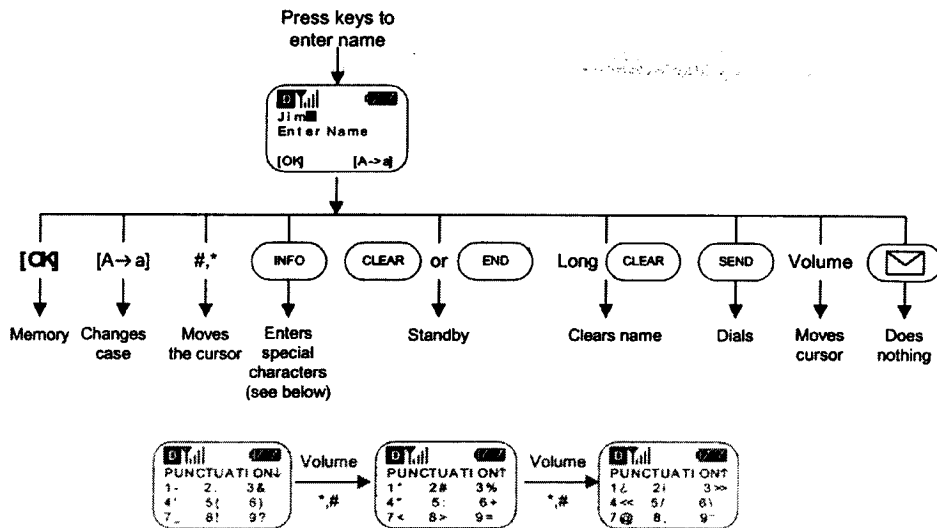


Figure 4-4 Alpha entry

Frequently used punctuation characters are mapped to the "1" key. During alpha entry, the following characters can be view and entered using the "1" key:

- - period
- , - comma
- -- hyphen
- ' - apostrophe
- @ - at
- : - colon
- ? - question mark
- 1 - one

Each press of the "1" key cycles through the available punctuation characters.

4 Calling

To make a call, the user can manually:

- Enter the phone number and press **SEND**
- Recall a particular number from memory and press **SEND**
- Press **SEND** to redial from standby mode (if an outgoing call has been made)

4.1 Dial a saved phonebook memory

Calls can be placed to saved phone book memories using the following methods:

- Dialing from a memory list
 - Dialing from a memory display
 - Speed dialing
- Entering 1 or 2 digits and pressing **SEND** from standby mode will cause a call to be placed to the corresponding memory location's saved phone number .
- One/two touch dialing

If enabled, allows the user to place a call by pressing and holding the digit(s) corresponding to the desired phone memory location number . For example, to dial memory location 25, press 2, and then press and hold 5.

4.2 Last number redial

When the handset is in standby, the last outgoing number can be redialed by pressing the **SEND** key. The last outgoing number information is now stored in NV memory when the handset is powered OFF (that is, even if the handset is powered off and then on again, the **SEND** key will still dial the last outgoing number).

4.3 Call origination

To originate a call, either enter the phone number manually or use memory dialing capabilities . The ellipsis in the "Calling..." text is animated every 500 msec and are displayed in the following manner: ". " ". " ". " ". " ".

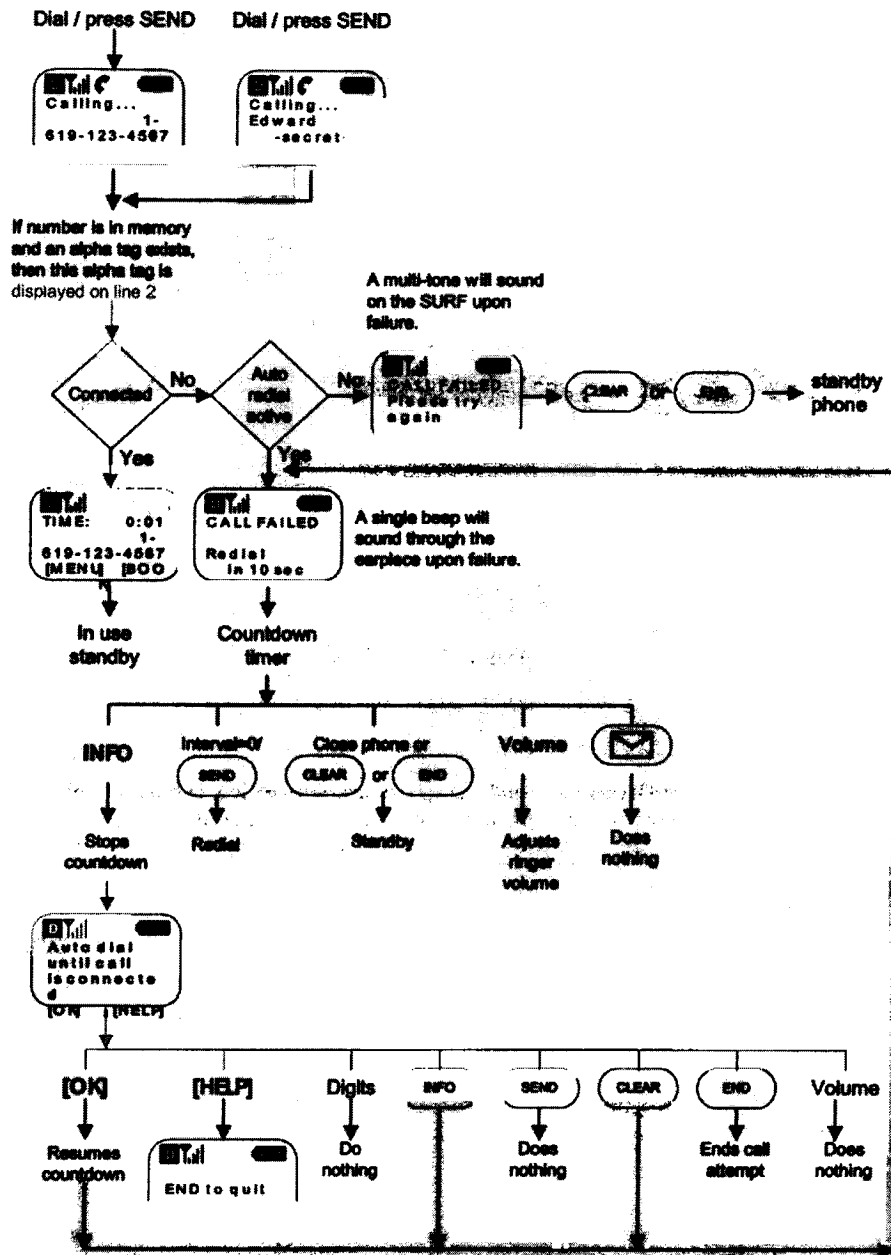


Figure 4-1 Call origination

4.4 Call receipt

When receiving an incoming call, the phone rings and the backlight is constantly illuminated.

Answering an incoming call

To answer an incoming call press **SEND** when the handset is already open. Also, any keypress (other than **POWER**, **END**, and volume keys) will answer the phone when in standby mode or when the "Call Answer" item is set to "by keypress."

Incoming-call text display

The incoming call text display varies depending on the following:

- **Caller ID**
 - If caller ID is supported, the display will include the phone number.
 - If the incoming call is a phonebook entry, the alpha tag will be displayed along with the number.
 - Caller ID information and the alpha tag will be displayed for incoming call-waiting calls.
- **Roaming**
 - If the call is being accepted in a roam service area, "Roam" will be centered on line 1, replacing "Incoming" in any of the three combinations detailed below.
 - If the "Roam Ringer" is active, a distinctive ringer sound will replace the user ringer setting for roaming incoming calls.
- **Displayed on lines 3 and 4**
 - "Number Restricted" will be displayed if caller ID is blocked.
 - "Number Unavailable" will be displayed if caller ID is not supported.
- **Ringer can be silenced on a call-by-call basis by pressing the **END** key or by a single press of either volume key**

Note that the incoming call information is still indicated visually (by the LED and "Incoming Call" text) and can still be answered in the standard manner.
- **A ring cadence sounds for both incoming digital and analog roaming calls. This ringer type is not a selectable option.**

The caller ID combinations and incoming call behavior for standby mode are shown in Figure 4-2

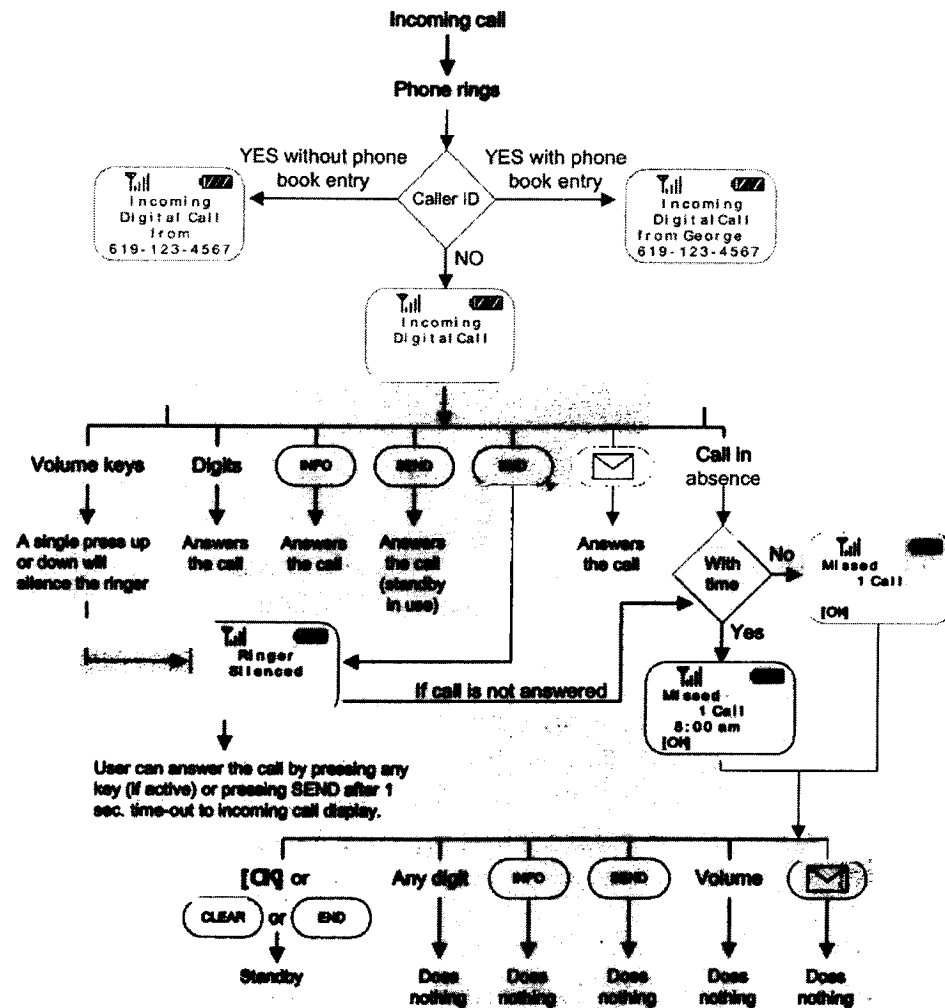


Figure 4-2 Receiving a call when in standby mode

The following are conditions that affect display and keypad behavior:

1. If the handset is not at the standby/idle display when the incoming call is received, the following behavior will apply for the first four seconds of the incoming call alert:
 - Pressing the **END** key silences the ringer and returns the phone to the state when the call was received.
 - Pressing **CLEAR** removes the “Incoming Call” text and returns the user to the screen that was present prior to the incoming call alert (for example, the “Main Menu” saving a phone book entry displays, and so on).
 - Pressing **SEND** answers the call.
2. If the handset is not at the standby/idle display when the incoming call was received and 4 seconds have passed without any user interaction, then the following behavior will apply for the remainder of the incoming call alert:
 - The screen that was visible and functionality that was available prior to the receipt of the incoming call alert are returned.
 - Pressing the **END** key silences the ringer and returns the phone to the state it was in when the call was received if the handset is in standby/idle state. The “Ringer Silenced” message is displayed for 1 second before returning to the previous state.
 - Pressing **SEND** answers the call.
 - All other keys are processed as applicable for the current screen context (for example, **CLEAR** backs up one level).

4.5 Call ending

The user can end a call by pressing **END** or closing the phone.

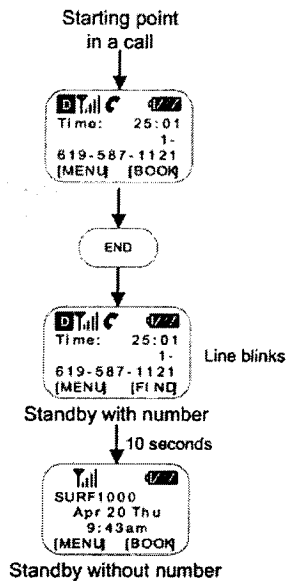


Figure 4-3 Call ending

When a call is dropped, the display shown in Figure 4-4 appears on the LCD and flashes for approximately 10 seconds or until any key is pressed.

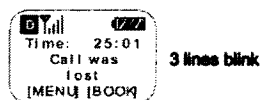


Figure 4-4 Dropped call

NOTE If a DTMF tone burst is in progress when a call is ended for any reason, the DTMF tones will also end.

4.6 Three-way calling, speed-dialing, and memory-list dialing

Three-way calling, speed-dialing, and memory-list dialing enable a user to speed-dial or one-touch dial a third party using two to three keypresses when a two-way call is already in process. The user can also add a third party from the phonebook by accessing the entry and pressing **SEND**.

Starting point: Two-way call already in progress. Flash may or may not have been sent to the network by the user—depends on the network's 3-way calling design.

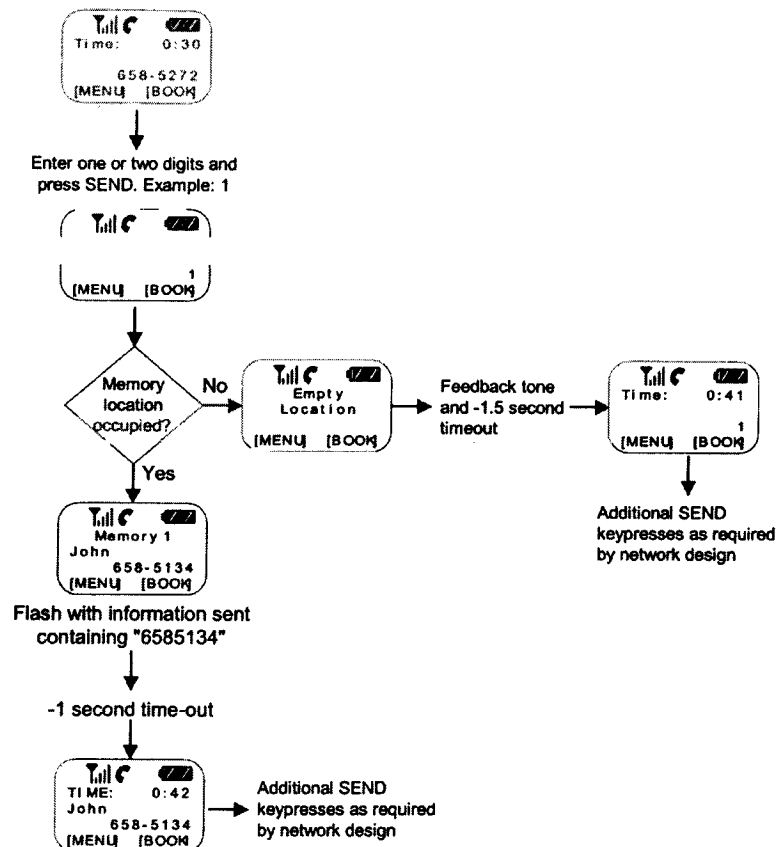


Figure 4-5 Three-way calling, speed-dialing, and memory-list dialing

NOTE During standby with number, a flash with information is sent if a number is entered (displayed on screen) and the **SEND** key is pressed. This functionality is comparable to a standard call-origination attempt from an end-user perspective. When numbers are entered from in-use standby mode, DTMF tones are also transmitted.

5 Interrupt and Alert Function

5.1 Call waiting caller ID display

When a call is already in progress and a second call is received with caller ID information, the incoming call notification is displayed on the LCD (Call receipt).

- “Incoming Call” is displayed on lines 1 and 2.
- Caller ID information is displayed on line 4.
- A phonebook nametag match (if applicable) is displayed on line 3.

5.2 Missed call alert

The missed-call alert includes a visual indicator that stays on the display until **CLEAR**, **END**, or **[OK]** is pressed. If an SMS message is received and the user clicks the ENVELOPE key (access messages), the missed-call alert will not be displayed until the user exits SMS mode and returns to standby mode.

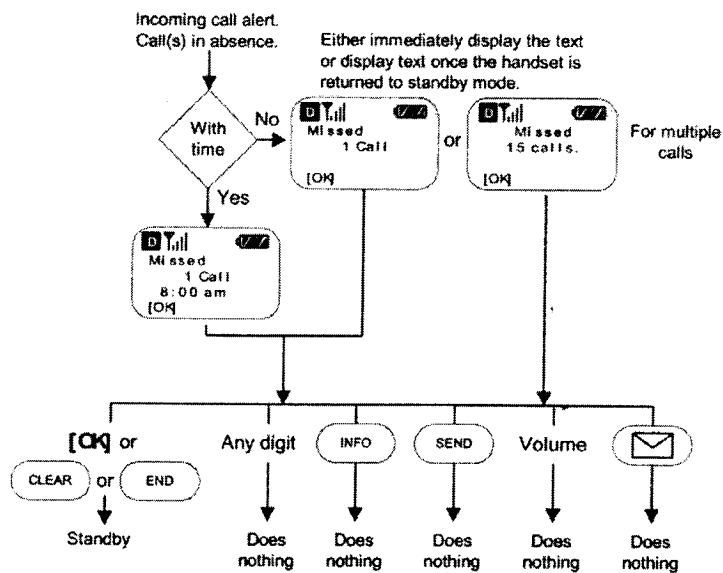


Figure 5-1 Missed-call alert

5.3 Earpiece volume adjustment during a call

Pressing the volume button up or down will adjust the earpiece volume during a call. LCD text will indicate the current volume level. This LCD text will time-out (4 seconds) or clear as a result of any keypress. The adjusted volume setting is saved without having to press the **[OK]** soft key.

5.4 Call-failed alert

There are two conditions in which a call-failed alert may occur (both of which can be cleared by any keypress or the redial countdown, in other words, there is no default time-out). Audible call-failed alerts are played through the earpiece speaker at the current earpiece volume setting. The redial countdown counts backward, starting from the number 10, and then redials the number.

The two conditions are as follows:

- A call origination attempt immediately fails due to a lack of signal or service (where any applicable silent retry attempts fail).

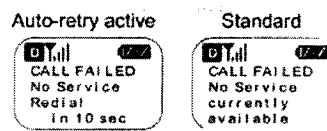


Figure 5-2 Call failed due to lack of signal or service

- The handset receives a network congestion (reorder) order as specified in IS-95-A, ANSI J-STD 008, or any other short-term call failure that the mobile can identify as a temporary condition. These displays adhere to the global timeout rule by timing out after 1 minute.

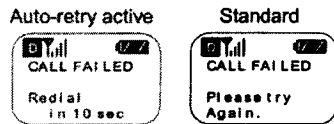


Figure 5-3 Call failed as a result of a network congestion order

NOTE Pressing **SEND** in condition 1 or 2 above causes an immediate call attempt.

5.5 Global time-out

The handset will return to standby if no key activity occurs for a period of 1 minute. This time-out behavior will apply to all display screens that do not already possess timeout systems. The global timeout applies to the following:

- SMS text and menus
- Call history

The global timeout does not apply to on-screen text messages requiring confirmation such as:

- SMS notifications
- All confirmation alerts received when in standby mode require an “OK” response. This does not apply to menu choices that require an “OK” to set an option (these displays have existing timeouts).
- Does not apply to a standby with number display.

5.6 Keypad lock

On the SURF1000 board, a switch next to the LCD display locks and unlocks the keypad. If any key other than the **POWER** key is pressed, it displays the message, “Keypad Lock: to unlock slide the earpiece!” If the **POWER** key is pressed, it displays “TO TURN OFF: earpiece up & hold POWER.”

5.7 Power-save notification

When the phone is idle for a specific amount of time (dependant on the roaming list length), the display will appear as follows.



Figure 5-4 Power-save notification

5.8 Enter lock-code notification

If the "Lock Phone" function is active, an interrupt display will prompt the user if the user attempts to originate a call or enter the security menu, or if the [UNLOCK] soft key is pressed. The CLEAR key will erase incorrect code entries and back out of the "Enter Lock Code" display. Code entry is displayed from right to left.



Figure 5-5 Enter lock-code notification

5.9 Phone-restricted interruption

The following display will appear when the user attempts to initiate restricted functions .
If the user attempts to dial a non-phonebook entry or save a new entry, this alert will appear, followed by the display with the phone number with the [SAVE] and [FIND] soft keys, or the erase a [BOOK] entry.

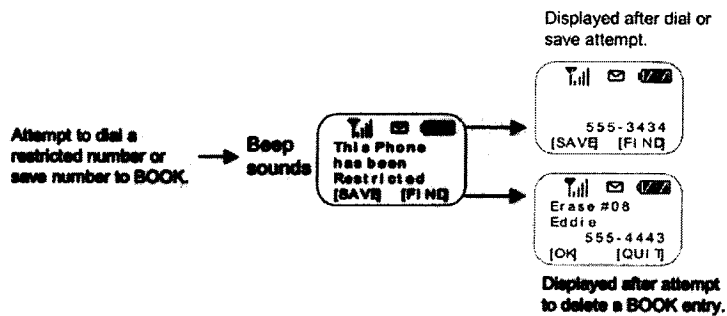


Figure 5-6 Phone-restricted interruption

6 Using the Memory

There are 99 general-use memory locations where you can store up to 32 digits for the phone number and 12 characters for the alpha tag (name).

6.1 Store information

The user can store the number in a location of his or her choice or let the phone select the first empty location. When one digit is entered, the phone selects the first empty memory location from the decade starting with that digit.

A duplicate detection feature will provide the user with an alert message that allows the user to save the number again or quit to standby. The duplicate detection device will search the digit string up to the first pause that is encountered. A successful match will occur if:

- An exact match occurs
- A minimum of 7 digits is entered that matches the 7 digits of a “dialable” number before a pause. For example, the number 655-4544 will match the book entry 1-555-655-4544P333.

NOTE Pressing the **CLEAR** key at any stage during the storing process will navigate back to the previous display if no digits or text is present. If digits or text is present, then **CLEAR** will delete the characters in the standard manner. An additional press and hold of **CLEAR** at this point will return the handset to standby.

NOTE The “[name] was stored successfully in [xx]” confirmation should be displayed for 2 seconds. The “Memory XX used, XX empty” message should be displayed for 3 seconds. Either message is cleared by any keypress. The type of clear will be dependent upon the keypress (for example, **END** returns to standby, “3” displays the number in standby with number display, and so on).

NOTE If the user does not edit the location of an entry, the “overwrite” step will not be displayed.

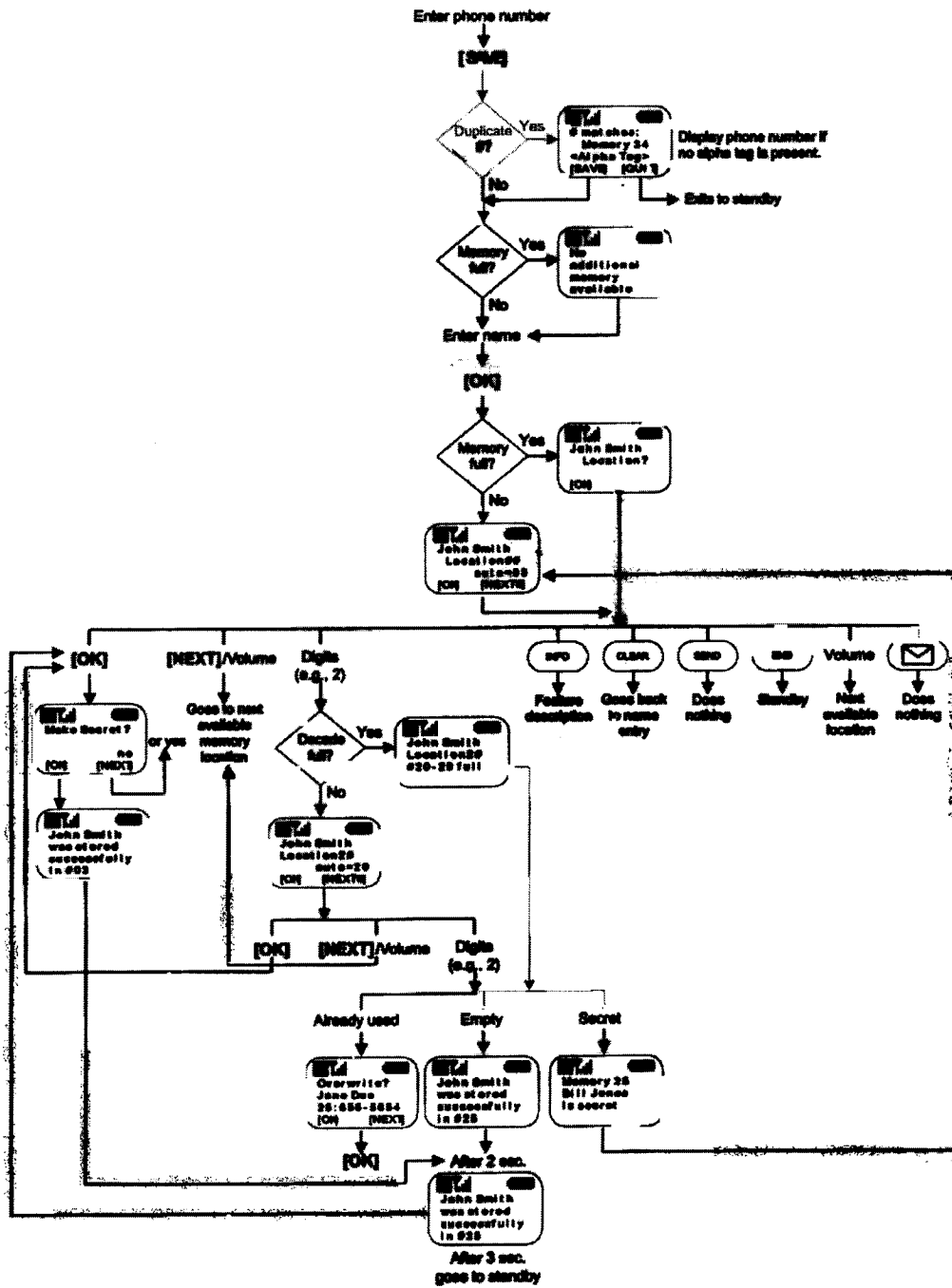


Figure 6-1 Storing information in the BOOK

6.2 Recall information

Stored numbers can be recalled and displayed in either a list form or a specific memory-location information format. The methods that are available to access memory information include:

- Specific memory-location number recall
- Name (alpha-tag) search
- Phone-number search
- Scroll-key usage (to gain entire or decade lists)

Specific memory-location recall, name search, or scroll-key usage

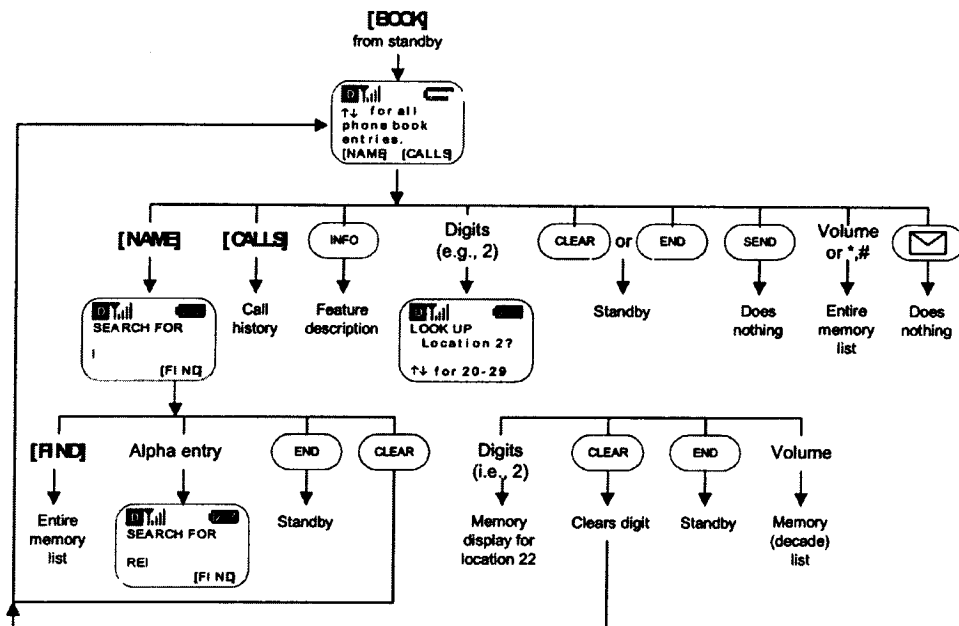


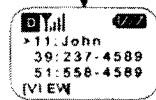
Figure 6-2 Specific memory-location recall, name search, or scroll-key usage

Phone-number search

From standby with at least 3 digits entered



[FIND]



Returns a list containing phone number matches (whether partial or full)

Figure 6-3 Phone-number search

Alpha-tag search

For single-character searches, the phone will display all entries that contain the search letter at the beginning of the first word. The matching entries will be displayed in alphabetical order with non-matching entries positioned alphabetically before and after them (refer to the figure that follows).

A search for the letter "B" would produce the results in the following figure.

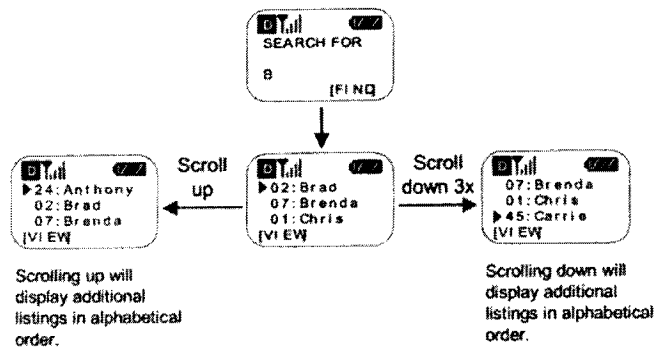


Figure 6-4 Alpha-tag search example #1

For multiple character searches, only the words that contain the text string will be displayed (in alphabetical order).

A substring search using the letters "BR" would produce the results shown in the following figure.

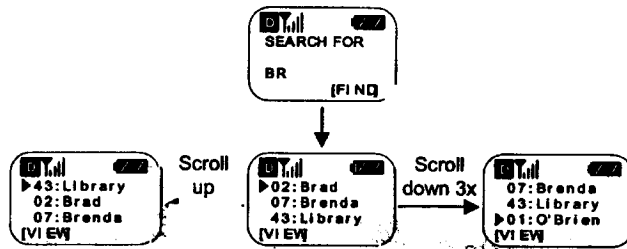


Figure 6-5 Alpha-tag search example #2

In both cases, the alphabetic sort order will adhere to the following pattern: lower case letters will be in the same position as the corresponding upper case letter.

A À Á Â B C Ç Z-0-1-2-3-4-5-6-7-8-9-punctuation-no alpha tag

6.3 Memory list

You can locate a memory by going through the [BOOK] list. Empty memory locations are not displayed. The list will either show full memory, decade, alpha-search matches, or phone-number matches.

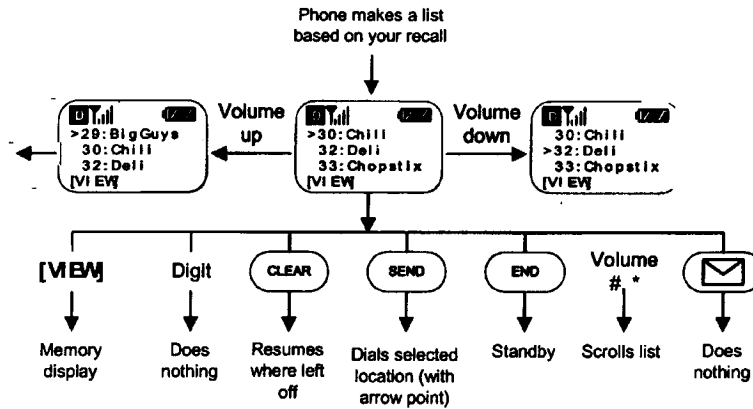


Figure 6-6 Memory list [BOOK]

6.4 Memory display

After you recall a particular memory, you will see the detailed memory information. The user can use the volume keys to scroll through the detailed entries.

- The up volume key scrolls backward through the listings (for example, 3.2.1.99).
- The down volume key scrolls forward through the entries.

NOTE If a "Secret" entry is not saved with a name, no text (for example, "SECRET") will be displayed on line 2 when viewing a [BOOK] entry.

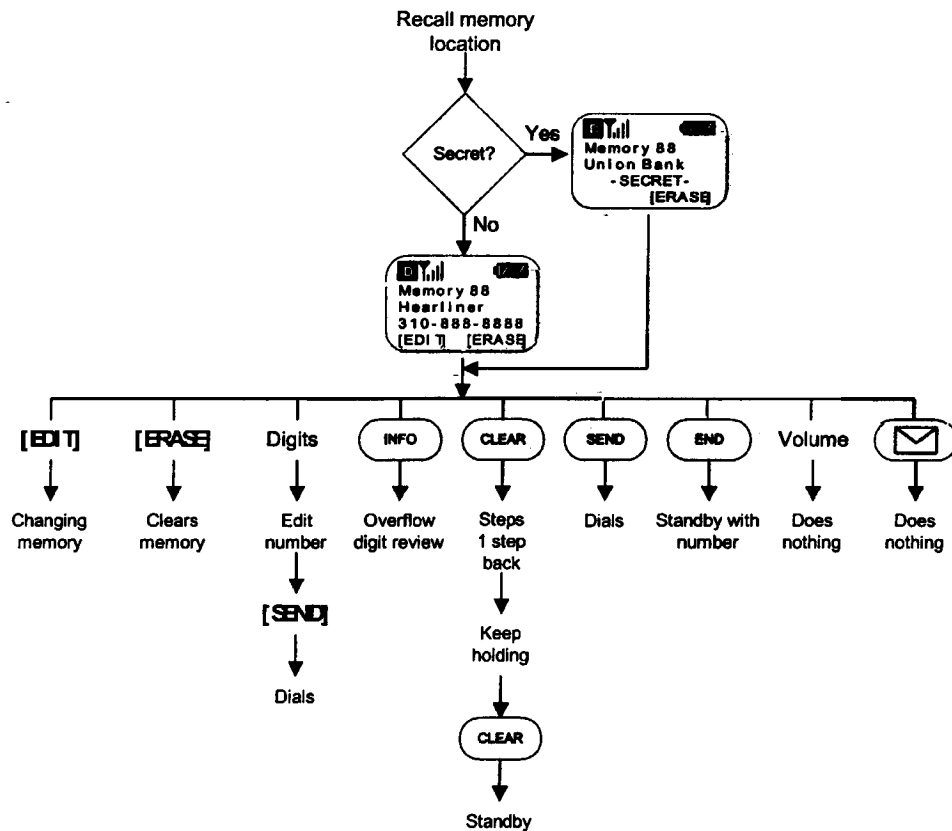


Figure 6-7 Memory display [BOOK]

6.5 Clear memory

When a memory location is recalled, there is an option to erase it.

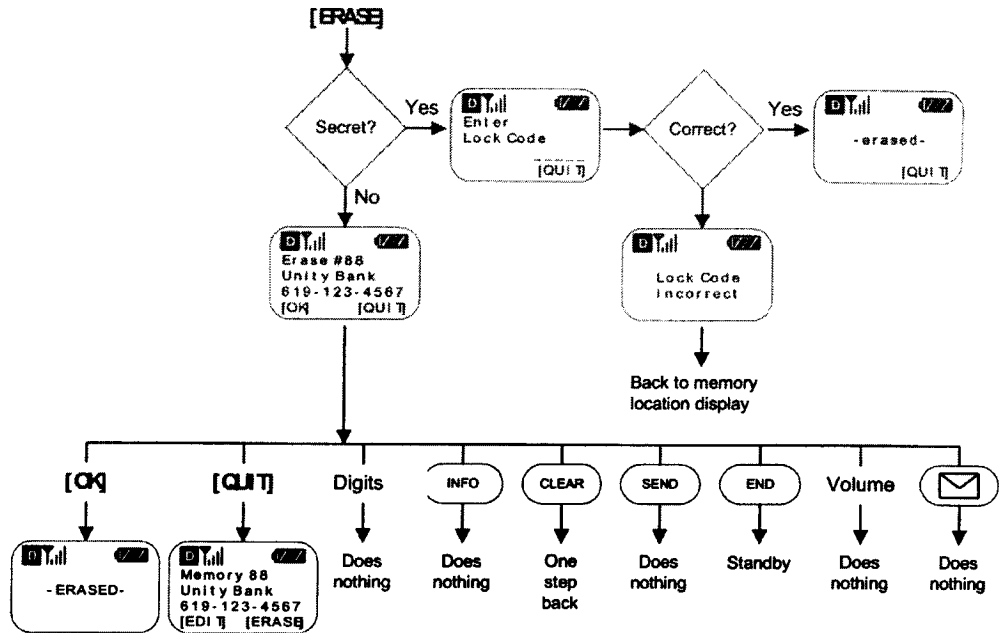


Figure 6-8 Clear memory [BOOK]

6.6 Change memory

Digits and letters can be edited by adding and deleting digits and letters.

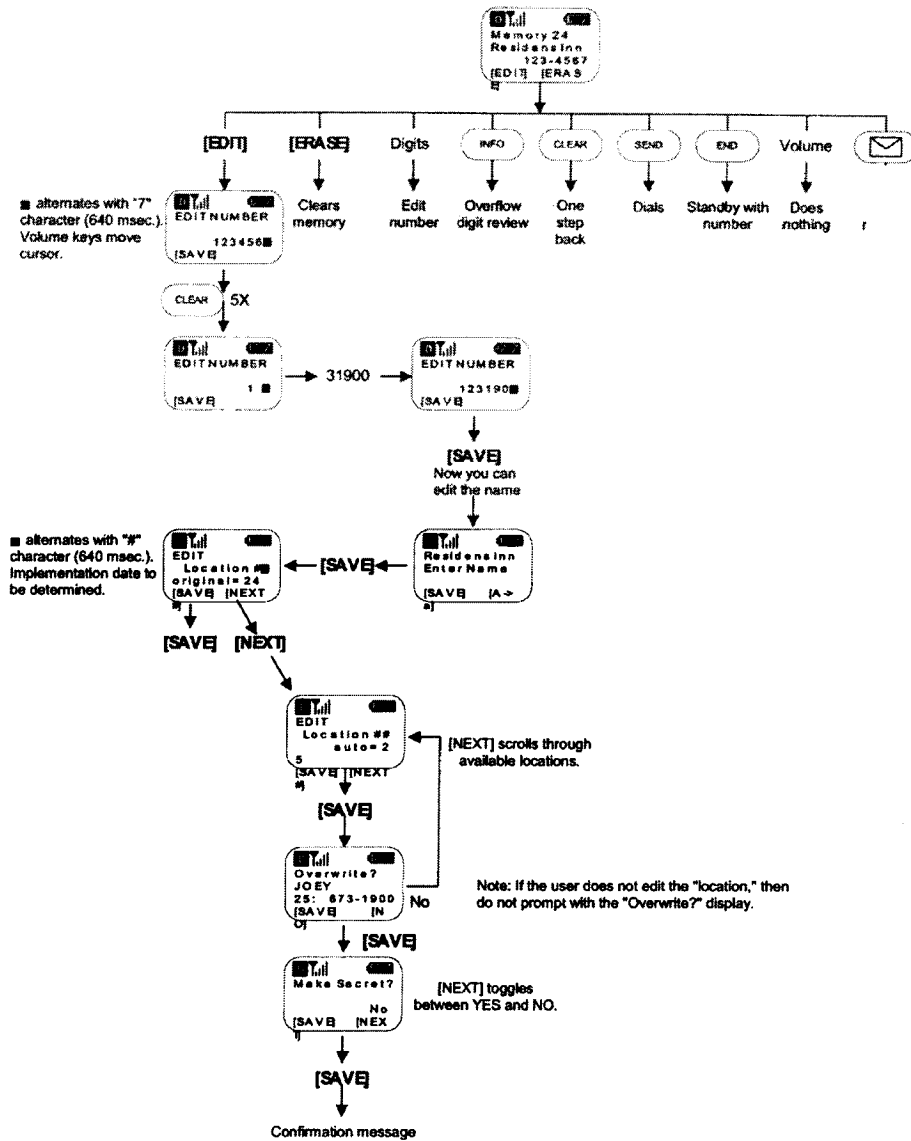


Figure 6-9 Change memory

6.7 Review call history

The call history list maintains a stack of 10 call-type entries.

A new entry moves the rest of the stack one level down and deletes the last (oldest) entry.

Table 6-1 Entry types

Entry type	Description
CALLED BY	Refers to calls received if caller ID is available.
CALL TO	Refers to outgoing calls.
ADDED	Refers to scratchpad entries. [TIME]: no call duration available. "No Duration" is displayed.
MISSED	Refers to missed (unanswered) calls if caller ID is available. [TIME]: no call duration available. "No Duration" is displayed.
CALL WAITING	Occurs when the user is in a call and an additional incoming call is detected (only possible if the user's service supports call waiting). A call-waiting call is stored before the first (most recent) call in the call history. [TIME]: no call duration available. "No Duration" is displayed.
3-WAY CALL	Initiated three-way calls (with caller ID) are stored and displayed in the Calls List. The phone number and name (if they match phonebook entry) are stored. Each party will be listed separately. [TIME]: no call duration available. "No Duration" is displayed.

NOTE Additional details can be accessed by selecting the **[INFO]** key and **[TIME]** soft key as shown in the following figure. Calls can be placed from the call history list by pressing **SEND**. The volume keys can be used to scroll through Call List entries in the "View" mode.

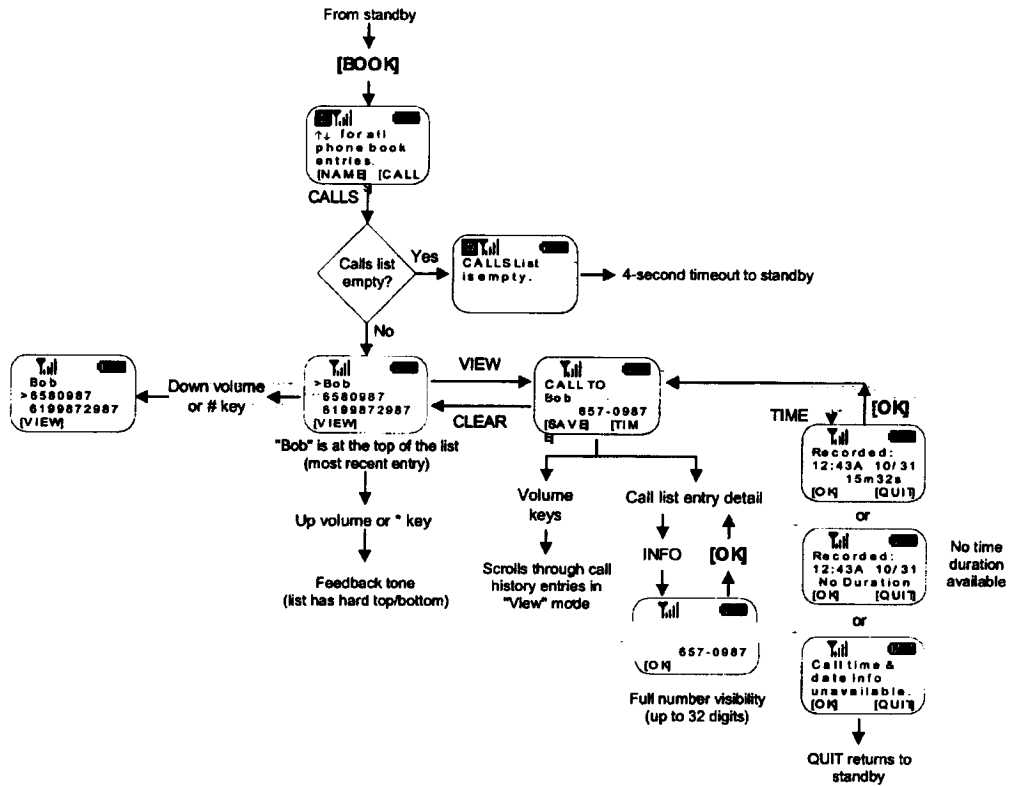


Figure 6-10 Additional call history details

7 Menu

7.1 Main menu and top-level flow

A confirmation message is displayed for specific menu items when a setting is changed. The confirmation message, "SETTING SAVED" is displayed only if the current setting is changed to another setting and applies to the following SURF1000 menus:

1, 21, 22, 23, 24, 41, 42, 43, 51, 52, 53, 61, 62, 63, 64, 65, 71, 72, 73, 74, 91, 92, 93



Figure 7-1 Setting saved

7.1.1 Menu structure

The flow chart on the next page displays all of the menu items and their corresponding menu number for one type of phone. The number for each menu will be displayed right aligned on the line 1 of the LCD.

The Main Menu is displayed as follows.

NOTE The following graphic has been updated.

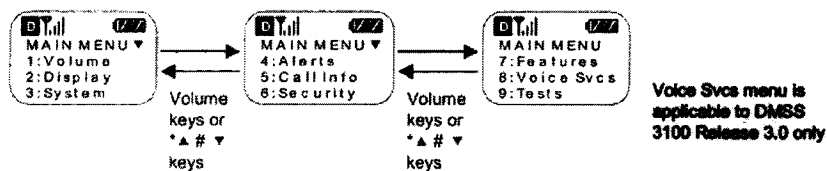


Figure 7-2 Main menu

Table 7-1 Menu structure

From	Menu	Submenu	
Standby without number	1: Volume	11: Ringer 12: Key Beep 13: Earpiece 14: Message	
	2: Display	21: Backlight 22: Banner 23: Show Time 24: Auto Hyphen 25: Version	
	3: System	31: Select 32: Set NAM 33: Auto NAM 34: Force Mode 35: Data/Fax	Trimode ¹ only: 31: Select 32: Force Mode 33: Data/Fax
	4: Alerts	41: Fade 42: Minute 43: Service 44: Roam Ringer	
	5: Call Info	51: Last Call 52: Home Calls 53: Roam Calls 54: All Calls	
	6: Security	61: Lock Mode 62: Restrict 63: New Code 64: Emergency # 65: Clear Calls	
	7: Features	71: AutoAnswer 72: Auto Retry 73: Scratchpad 74: Mute 75: BeepLength 76: One-Touch 77: Privacy 78: SPO Config	
	8: Voice Svc	81: Multimedia ²	
	9: Tests	91: SMS 92: Call Mngr 93: Sound 94: NV 95: UI 96: Other	MSM3100 1.0c ³ : 91: SMS 92: BC SMS ⁴ 93: Call Mngr 94: Sound 95: NV 96: UI 97: Analog HFK 98: Other

¹ Trimode is only available in the DMSS 3100 Release 2.0 Alpha and later DMSS 3100 releases.

² Multimedia option was introduced in MSM3100 Release 3.0 Commercial (not present in DMSS 5000).

³ MSM3100 Release 1.0 Commercial and later only. BCSMS is not included; Call Mngr is 92, Sound is 93, and so on.

⁴ Broadcast SMS (BC SMS) was introduced in MSM3100 Release 3.0 Alpha.

7.2 Menus

The following menus are available when the handset is not in use from standby mode. The top level of the menu item descriptions/illustrations that are presented below, are organized based on the organization shown above .

For quick access, every menu feature and option has a title and number associated with it displayed on the top line of the display. The quick access numbers are detailed in the Main Menu flow diagrams . The user can enter a corresponding number to access each menu item. Once the user is at a particular menu item:

- Pressing **CLEAR** will go back one layer
- Volume keys and **[NEXT]** will display additional options
- Pressing **[OK]** will set an option
- Pressing **END** will cancel without saving
- *, # keys will scroll through menu items
- Other keys do not do anything

A checkmark character (✓) appears next to the current setting of all items. For volume displays, the check is aligned to the left. All other selectable displays position the check to the left of the text with an empty character space between the check and text.

7.2.1 Volume

A checkmark character (✓) appears next to the current setting. The standard top-level menu will be displayed if the handset is in the hands-free car kit or attached to the headset, however, specific submenu titles will be displayed automatically based on the accessory type (see below).

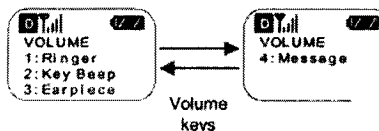


Figure 7-3 Main volume menu

The menus in the following subsections are displayed when the handset is not attached to an accessory.

7.2.1.1 Ringer

Ringer volume is used to adjust the ringer and new message alert volume (Off, escalate, low, M-, M+, high). If it is set to off, the message “- Ringer Off -” is displayed on line 2 while in standby mode (and will overwrite the date if necessary). From this menu, a sample sound of the currently selected ringer will sound each time that the volume setting is increased. When the volume setting is decreased, no sample ring will sound.



Figure 7-4 Ringer volume

7.2.1.2 Key beep

Key beep volume can be set to off, low, M-, M+, or high. When scrolling through the low or high levels, the handset will emit a tone with a sound intensity that corresponds to the setting.



Figure 7-5 Key-beep volume

7.2.1.3 Earpiece

Earpiece volume is used to adjust the volume to levels 1-7. When scrolling through the settings, the phone will emit a constant beep tone for each level.

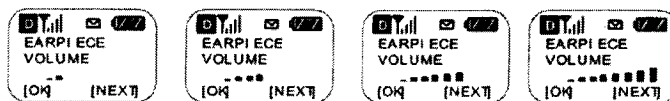


Figure 7-6 Earpiece volume

7.2.1.4 Message

The incoming SMS message alert volume can be set to off, low, M-, M+, or high. If the reminder is activated, a single beep will sound every 5 minutes after receiving a message if the alert is not acknowledged.



Figure 7-7 Message volume

7.2.2 Display

These display items are accessible while the handset is in a call. A checkmark (✓) character appears next to the current setting.

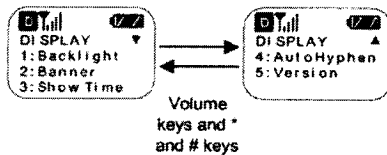


Figure 7-8 Display

7.2.2.1 Backlight

Use Backlight to set the LCD and keypad backlighting to always off, 10 seconds, or 30 seconds.

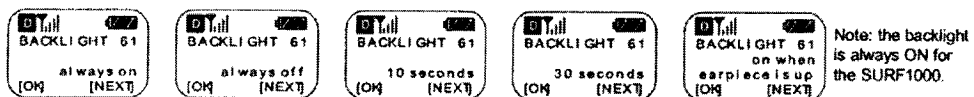


Figure 7-9 Backlight

7.2.2.2 Banner

Use Banner to enter a personal greeting that is displayed when the phone powers up. The phone displays the current banner and [OK] and [EDIT]. Choose [EDIT] to make changes to the existing banner (which is visible during editing).



Figure 7-10 Banner

7.2.2.3 Show time and date

Use Show time and date to display (or not display) the date and time.



Figure 7-11 Show time and date

7.2.2.4 Auto-hyphen

Use Auto-hyphen to set the hyphen option to on or off. When on, the function automatically inserts hyphens to be consistent with U.S. phone numbers.

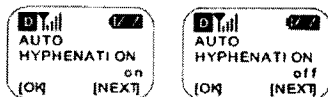


Figure 7-12 Auto-hyphen

7.2.2.5 Version

Select Version to make the product branch and software version visible. Additional information (PRL and ESN) is visible using the **[MORE]** smartkey.



Figure 7-13 Version

7.2.3 System

A checkmark (✓) character appears next to the current setting.

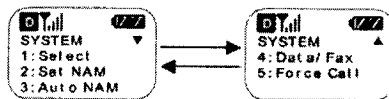


Figure 7-14 System

7.2.3.1 Service programming (hidden)

To enter service programming, press **[MENU]** 80 and enter the security code (see Section 9.2.6 for more information).

7.2.3.2 Select

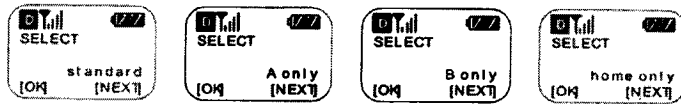


Figure 7-15 Select

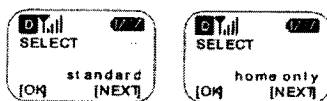


Figure 7-16 Select (Trimode)

The Select function allows the user to have some control over PRL usage including the following options:

- Standard – preferred and enhanced roaming search and acquisition behavior
- Home only – when selected, the phone will provide service in the following three cases:
 - When the acquired system matches a preferred system record in the PRL and the system record specifies that the roaming indicator is off
 - When the acquired system does not match a negative system record in the PRL and the acquired SID matched one of the home SIDs
 - When the acquired system does not match any system record in the PRL, PREF ONLY is false, and the default roam indicator is off.

7.2.3.3 Set NAM

NOTE Not available for the MSM3100 in Trimode.

Use set NAM to make changes to the NAM setting. If the user attempts to access a second NAM, the SURF1000 tries to search for that service.



Figure 7-17 Set NAM

7.2.3.4 Auto NAM

NOTE Not available for the MSM3100 in Trimode.

Use Auto NAM to set the phone so that it automatically switches to one of the programmed NAMs to match the corresponding service.

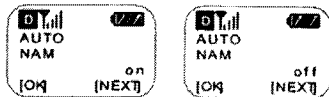


Figure 7-18 Auto NAM

7.2.3.5 Data/fax

Due to infrastructure limitations, there are instances when the handset software cannot determine if an incoming CDMA call contains voice or data information. In these cases, the handset must be set to “data mode” to accept the incoming data information.

The user has five options when setting the handset for an incoming data call: off, fax for next call, data for next call, fax until power OFF, and data until power OFF. “Off” is the default. The “next call” settings set the phone to data mode for only the next incoming call or for the next 10 minutes. If either of these stipulations occur, the phone is automatically rest to “off.” The “until powered OFF” settings set the phone to data mode until a power cycle occurs, then the Data/Fax setting is returned to “off.”

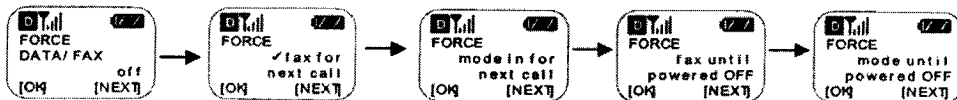


Figure 7-19 Data/fax

7.2.3.6 Force call

This setting forces the CDMA preferred handset into analog mode for either the next call (incoming or outgoing) or the next 10 minutes (whichever comes first).

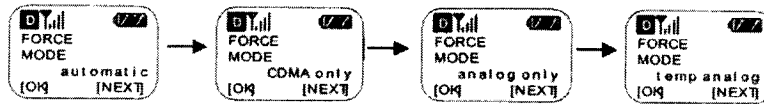


Figure 7-20 Force call

Trimode

The user can choose any of the following modes for the MSM3100.

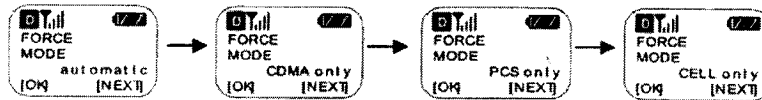


Figure 7-21 Force call (Trimode)

7.2.4 Alerts

A checkmark (✓) appears next to the current setting.

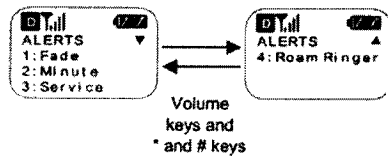


Figure 7-22 Alerts

7.2.4.1 Call drop

Use Call drop to set an alert to beep when the phone loses a call. If set to “on” and the call is dropped, a beep will be sounded and a message that the call was lost is displayed.



Figure 7-23 Call drop

7.2.4.2 Minute

Use Minute to set an alert to beep 10 seconds before the end of every minute during a call. The alert will not sound if the phone is in the “Calling...” state for more than 50 seconds.



Figure 7-24 Minute

7.2.4.3 Service

On the SURF1000 board, if the service alert is on, it beeps when losing service and when it reacquires service. If service alerts are off, it does not beep when losing or finding service.

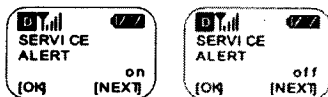


Figure 7-25 Service

7.2.4.4 Roam ringer

Use roam ringer to set the ringer to sound (on) or not sound (off) upon reception of a roam call. The roam ringer sound is distinct from other ringers.



Figure 7-26 Roam ringer

7.2.5 Call information

The call timers in the following subsections will return to 0 after 9,999,999 minutes and 59 seconds. The counter returns to 0 at the 10,000th call. These menu items will be accessible during a call.

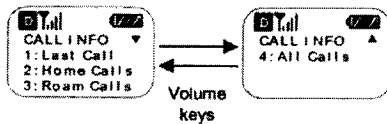


Figure 7-27 Call information

7.2.5.1 Last call

Last call allows you to display information about the last call that was made.

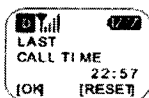


Figure 7-28 Last call

7.2.5.2 Home calls

Home calls allows you to display both the total call time in minutes and seconds of home calls and the number of calls. Calls duration will be determined by the "Billing Plan." Press **RESET** to return the counter and time to zero.

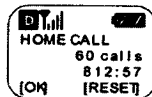


Figure 7-29 Home calls

7.2.5.3 Roam calls

Roam calls allows you to display both the total roam time in minutes and seconds and the number of calls. Calls duration is determined by the "Billing Plan." Press **RESET** to return the counter and time to zero.

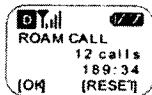


Figure 7-30 Roam calls

7.2.5.4 All calls

All calls allows you to display both the total call time in minutes and seconds and the number of calls. This cannot be reset.

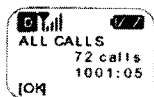


Figure 7-31 All calls

7.2.6 Security

The user must enter the 4-digit lock code to enter this menu section. A checkmark character (✓) appears next to the current setting.

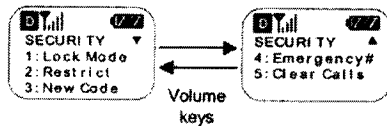


Figure 7–32 Security

7.2.6.1 Lock mode

Choose lock mode when you want the phone to lock (on power up, now, or never).

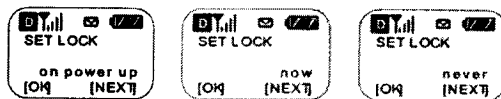


Figure 7–33 Lock mode

7.2.6.2 Restrict

This feature will restrict outgoing calls to phone numbers that are stored in memory location 1 to 99 and not allow new entries to be saved to or erased from the phonebook.

Set to:

- “Phone Book” for activation
- “No” to inactivate the restriction function

Calls can be made to numbers saved as “Secret.” For the restricted setting “to phone book,” hard-coded emergency numbers and designated service-provider numbers are allowed at any time. “This Phone has been Restricted” will be displayed if any restricted function is attempted.

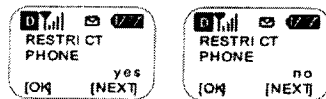


Figure 7–34 Restrict

7.2.6.3 New code

Use New code to enter a new lock code and PIN code.

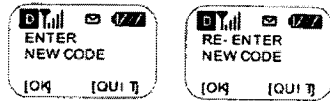


Figure 7-35 New code

7.2.6.4 Clear calls list

Use Clear calls list to clear the call history information.

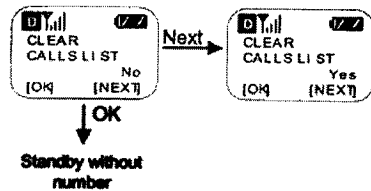


Figure 7-36 Clear calls list

7.2.7 Features

A checkmark character (✓) appears next to the current setting.

NOTE: The following graphic has been updated.

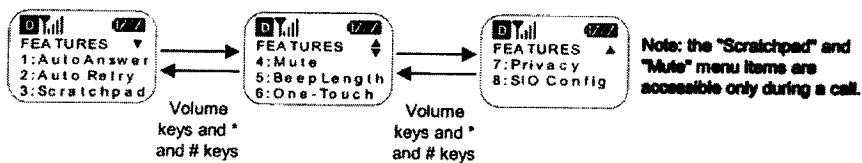


Figure 7-37 Features menu

7.2.7.1 Auto-answer

Use Auto-answer to set the handset to automatically answer an incoming call on the second ring.



Figure 7-38 Auto-answer

7.2.7.2 Auto-retry

Use Auto-retry to set the length of time that the phone will wait before automatically redialing a number when the system is busy. It will redial up to five times.



Figure 7-39 Auto-retry

7.2.7.3 Scratch pad

Use Scratch pad to store phone numbers during a call. No keypad feedback line is produced when keypresses are made. This item is available only when in a call. When the scratchpad is activated, the standard in-call display is removed from the display. The scratchpad menu number (53) is not displayed when the feature is active.



Figure 7-40 Scratch pad

7.2.7.4 Mute

Use Mute to switch the microphone on or off during a call. This is available only during a call. If mute is attempted during an emergency call, the handset will neither mute the microphone nor provide the “mute” display.

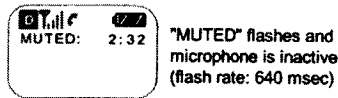


Figure 7-41 Mute

7.2.7.5 Beep length

Use Beep length to set the key-beep length and touch-tone playback speed. A normal key beep will produce a short fixed-length DTMF burst. A long key beep will produce a DTMF burst for as long as the key is held down.

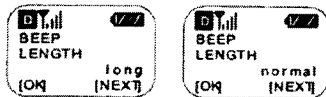


Figure 7-42 Beep length

7.2.7.6 One touch

Use One touch to enable or disable one-touch dialing for memory locations 1 to 99.

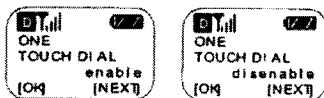


Figure 7-43 One touch

7.2.7.7 Privacy

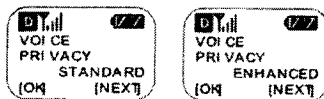


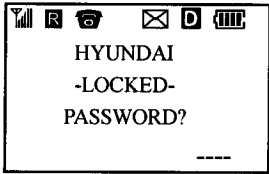
Figure 7-44 Privacy

8. Making an Emergence call

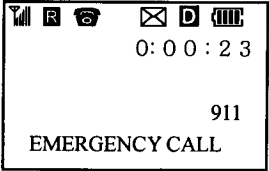
This is the enhanced 911 feature.

8.1 E911 IN LOCK MODE

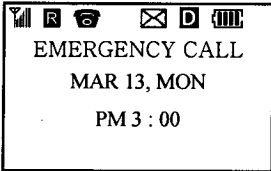
- Enter 911 and press **[SEND]**.



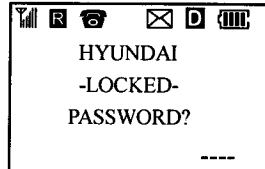
When a call ends, the phone returns to the emergency mode.



- Reserve Emergency mode during 5 minutes.

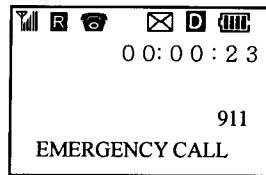


- Enter 911 and press **[SEND]**.

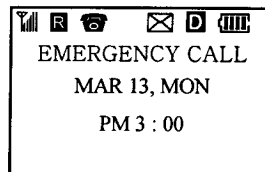


When a call ends, the phone returns to the emergency mode.

The phone tries to make an emergency call using any available system.



- Reserve Emergency mode during 5 minutes.

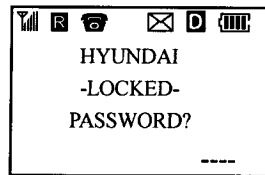


8. Making an Emergence call

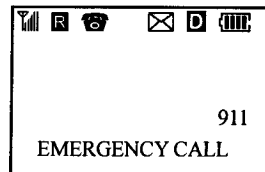
This is the enhanced 911 feature.

8.1 E911 IN LOCK MODE

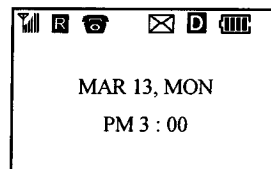
- Enter 911 and press [SEND].



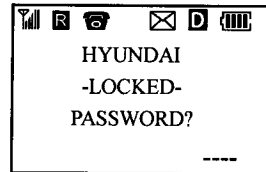
When a call ends, the phone returns to the emergency mode.



- Reserve Emergency mode during 5 minutes.

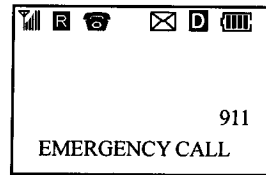


- Enter 911 and press **[SEND]**.



When a call ends, the phone returns to the emergency mode.

The phone tries to make an emergency call using any available system.



- Reserve Emergency mode during 5 minutes.

