

OWNER'S MANUAL

NOKIA® 232N



NOKIA 
CONNECTING PEOPLE

DESCRIPTION OF KEYS

Use the phone keys as follows:

On the side of phone:

Δ and ∇
Select earpiece volume.

MENU
Selects menu mode.

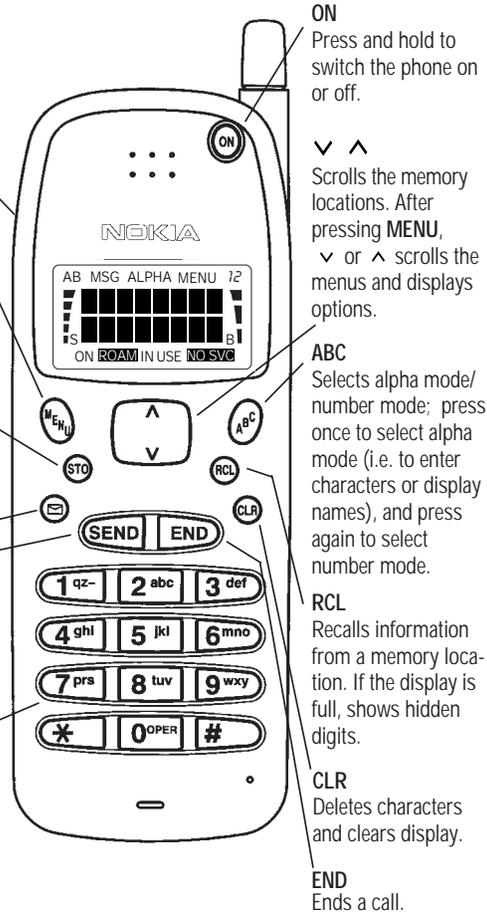
STO
Stores information in a memory location. In a menu, confirms a setting.



Dials voicemail or favorite number stored in memory location 98.

SEND
Dials a number. Pressing **MENU SEND** in a call can send DTMF data.

0 to 9, * and #
Enter numbers and characters.
9 (for emergency calls), ***** and **#** are also used for one-touch dialing.



For your information...

To install/charge the battery: See page 8/9
 To switch on: See page 10
 To make a call: See page 11
 To make an emergency call: See page 13
 To view your own number: Press **RCL 99**

When using your phone in a call:

- Hold the phone to your ear, and speak normally; there is no need to move the phone to your mouth.

In this owner's manual:

- Keypresses are indicated in a **bold** typeface, e.g. **MENU**.
- Display messages are indicated in an *italic* typeface, e.g. *CALL*.

QUICK GUIDE



Adjust Volume (during a call)	Press to Δ increase and ∇ to decrease the volume
Clear a digit	Press the CLR key
Clear display	Press and hold the CLR key
Ending a Call	Press the END key
Last number redial	Ensure the display is clear and press SEND
Making a call	Key in the area code and phone number and press the SEND key
Receiving a call	Press any key except ON or the volume keys
Switching on/off	Press and hold the ON key

Memory Functions

9 Key Emergency Call	Press and hold the 9 key
Displaying your own number	Press RCL 99
One-touch dialing	Simply press any one of these keys to dial the associated number (#, *, 9, ☎)
Search for a name	Press ABC and then ∇ or \wedge
Search for a number	Press ∇ or \wedge (with a clear display)
Speed dialing	Key in the location number and press the SEND key

The Menu Facility

Enter function	Press the STO key
Enter menu facility	Press the MENU key
Exit menu facility	Press the CLR key
Menu shortcut	Press the MENU key and then the function shortcut number (listed on the flip-side of this card)
Scroll	Press \wedge to scroll forward and ∇ to scroll backward
Select option	Press the STO key

LIST OF MENU FUNCTIONS

Menu Name	Shortcut Keys	Description
LOCK PHONE	MENU 0 (L)	Locks/unlocks the phone.
SYSTEM SELECT	MENU 1	Selects roaming mode (system feature).
RINGING TYPE	MENU 2	Selects the ringing tone type.
CALL TIMERS	MENU 3 (S)	Displays length of calls. Resets the timers.
LIGHTS CONTROL	MENU 4	Selects operation of display and keypad lights.
KEYPAD TONES	MENU 5	Switches keypad tones on/off.
RINGING VOLUME	MENU 6	Selects volume of ringing tone.
NAM SELECT	MENU 7	Displays and selects cellular number/network.
AUTO ANSWER	MENU 8	Sets automatic answer on/off.
ACCESSORY MENU	MENU 9	Controls accessories connected to the phone.
CLEAR LAST CALL	MENU 1 0	Sets the last-called numbers to be cleared or retained when phone is switched off.
CHANGE LOCK CODE	MENU 1 1 (S)	Allows you to change lock code.
DATA MODE	MENU 1 2	Selects data mode (in a call).
EMERGENCY 9 KEY	MENU 1 3 (L)	Sets 9 key on/off for one-touch dialing of emergency calls.
CALL RESTRICT	MENU 1 4 (S)	Sets call restrictions.
MEMORY LOCK	MENU 1 5 (S)	Sets memory access restrictions.
ACTIVATE KEYGUARD	MENU * or MENU 1 6	Locks/unlocks the keypad.
SEND DTMF	MENU SEND or MENU 1 7	Sends DTMF tones (in a call).
SID SCREEN	MENU 1 8 (L)	Selects SID to on/off.
MESSAGE ALARM	MENU 1 9	Selects the audible alarm used when you receive a message.
MESSAGES	MENU 20	Allows you to read or delete a message.

(L) = requires entry of 4-digit lock code (default is 1234).

(S) = requires entry of 5-digit security code (default is 12345).

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IMPORTANT SAFETY INFORMATION

TRAFFIC SAFETY

Do not use a hand-held telephone while driving a vehicle. If using a hand-held telephone, park the vehicle before conversing.

Always secure the phone in its holder; do not place the phone on the passenger seat or where it can break loose in a collision or sudden stop.

The use of an alert device to operate a vehicle's lights or horn on public roads is not permitted.

Remember, road safety always comes first!

OPERATING ENVIRONMENT

Remember to follow any special regulations in force in any area and always switch off your phone whenever it is forbidden to use it, or when it may cause interference or danger.

Operation of any radio transmitting equipment, including cellular telephones, may interfere with the functionality of inadequately-protected medical devices. Consult a physician or the manufacturer of the medical device if you have any questions. Other electronic equipment may also be subject to interference.

As with other mobile radio transmitting equipment, users are advised that for the satisfactory operation of the equipment and for the safety of personnel, it is recommended that the equipment should only be used in the normal operating position.

Users are advised to switch off the phone when at a refueling point (service station). Users are reminded of the need to observe restrictions on the use of radio equipment in fuel depots (fuel storage and distribution areas), chemical plants, or where blasting operations are in progress.

Do not store or carry flammable liquids, gases, or explosive materials in the same compartment as the phone, its parts, or accessories.

Only qualified personnel should install or service the phone in a vehicle. Faulty installation or service may be dangerous and may invalidate any warranty which may apply to the unit.

Electronic fuel-injection systems, electronic anti-skid braking systems, electronic cruise-control systems and other electronic systems can malfunction due to the lack of protection from radio signals. Check regularly that all cellular phone equipment in your vehicle is mounted securely and operating properly.

Switch off your cellular telephone when in an aircraft. The use of cellular telephones in an aircraft may be dangerous to the operation of the aircraft, disrupt the cellular network, and is illegal.

Failure to observe these instructions may lead to suspension or denial of cellular services to the offender, or legal action or both.

EMERGENCY CALLS

IMPORTANT!

This phone, like any cellular phone, operates using radio signals, cellular and landline networks as well as user-programmed functions which cannot guarantee connection in all conditions. Therefore you should never rely solely upon any cellular telephone or similar radio device for essential communications (e.g. medical emergencies).

Remember, to make or receive any calls the phone must be switched on and in a service area with adequate cellular signal strength.

Locking the phone or restricting calls does not prevent making emergency calls with the phone. To make an emergency call, if the phone is not on, switch it on.

If the **ALPHA** indicator is shown on the display, clear it by pressing the **ABC** key. Press and hold the **CLR** key for several seconds to ready the phone for calls.

Key in the emergency number for your present location (e.g. 911, 112 or other official emergency number). Emergency numbers vary by location.

Press the **SEND** key.

If certain features are in use (Keyguard, Locking, Call Restricting etc.), you may first need to turn those features off before you can make an emergency call. Consult this document and your local cellular service provider.

Emergency calls may not be possible on all cellular phone networks or when certain network services and/or phone features are in use. Check with local cellular service providers.

When making an emergency call, remember to give all the necessary information as accurately as possible. Remember that your cellular phone may be the only means of communication at the scene of an accident – do not cut off the call until given permission to do so.

USING THIS GUIDE

The cellular phone described in this guide is approved for use on the AMPS and NAMPS network. The AMPS/NAMPS manual activation commands for various services are not presented in this guide (e.g. using * and # for activating or deactivating services). The phone nevertheless is capable of handling commands given in that form. For these commands, please consult with your service providers.

A number of features included in this guide are called Network Services. They are special services provided by cellular service providers. Before you can take advantage of any of these Network Services, you must subscribe to the service(s) you want from your home service provider. You can then activate these features as described in this guide.

The operation of the phone requires successive key depressions; two keys are never to be pressed simultaneously.

WARRANTY NOTE

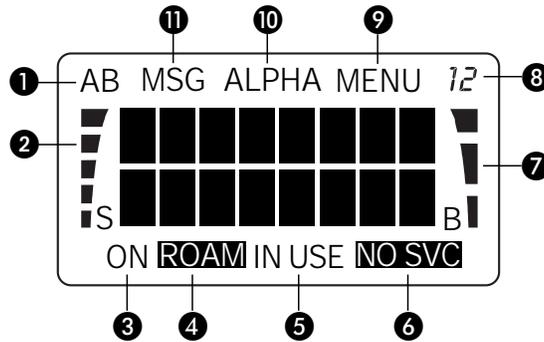
Use only batteries, antennas and chargers approved by the phone manufacturer. The use of any other types will invalidate any approval or warranty applying to the telephone, and may be dangerous.

FCC/INDUSTRY CANADA NOTICE

Your phone may cause TV or radio interference (e.g. when using telephone in close proximity of receiving equipment). The FCC/Industry Canada can require you to stop using your telephone if such interference cannot be eliminated. If you require assistance, contact your local service facility.

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE CONDITION THAT THIS DEVICE DOES NOT CAUSE HARMFUL INTERFERENCE.

DISPLAY INDICATORS



- 1 AB Indicator** Shows which network is in use:
A – System A only
B – System B only
AB – Both systems
Blank – Home area only
- 2 Signal Indicator** Shows approximate received signal strength.
- 3 ON Indicator** Shows that phone is switched on.
- 4 ROAM Indicator** Shows which system the phone is using:
On – home system in a non-home area.
Flashing – non-home system.
Off – home system in the home area.
- 5 IN USE Indicator** Shows that a call is in progress.
- 6 NO SVC Indicator** Shows that cellular service is not available.
- 7 Battery Indicator** Shows approximate capacity remaining.
Scrolls when charging is in progress.
Flashes to show that battery is too hot or cold and will not be charged.

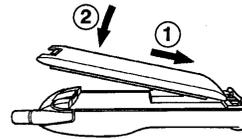
If charging while phone is switched off, the indicator bars disappear, but **B** remains on.

- 8 Number** Shows menu or memory location selected.
- 9 MENU Indicator** Shows that menu mode has been selected.
- 10 ALPHA Indicator** Shows that alpha mode has been selected; letters can be entered, and names can be displayed.
- 11 MESSAGE Indicator** Shows that a caller has left you a message.

GETTING STARTED

INSTALLING THE BATTERY

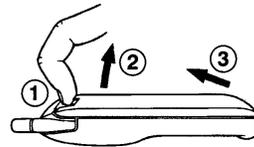
- 1** Place the base of the battery into the lower part of the phone, taking care to line up the screw in the lower right corner with the indent in the battery plastic.



- 2** Push the top of the battery toward the upper part of the phone, until the catch clicks.

To remove battery, when required:

- 1** Press and hold catch.
- 2** Pull top of battery away from phone.
- 3** Detach battery from the phone.



CHARGING THE BATTERY



**TO ACHIEVE FULL BATTERY CAPACITY,
NEW BATTERIES MUST BE CHARGED
WITH THE PHONE OFF
FOR AT LEAST 24 HOURS
BEFORE INITIAL USE.**

- 1 Take the charger supplied, and fit the connector into the phone.
- 2 Connect the charger to a standard AC outlet (or cigarette lighter receptacle).
- 3 For fastest charging, make sure the phone is off.
- 4 Leave the battery on charge for 24 hours before initial use. After the first use, the charging times depend on the type of battery fitted, and charger used; approximate times are shown below:



Charger Type	Battery Type			
	BTH-8S/L	BTH-8SM	BTH-8H	BTH-8HM
Standard Travel Charger (ACH-3U/E/P)	90 mins	110 mins	5 hrs	5.5 hrs
Rapid Travel Charger (ACH-4U/E/P) or Rapid Cigarette Lighter Charger (LCH-2)	40 mins	60 mins	70 mins	100 mins

- 5 When charging is complete, disconnect the charger from the outlet and from the phone. For further details, please refer to 'Charging Indications' (below), and 'Battery Information' (page 52).

Charging indications:

- When the phone is switched off, and the charger is connected, only the '**B**' part of the battery indicator will be visible.
- When the phone is switched on, and charging is in progress, the bars on the battery charge indicator will 'scroll'. When the battery is fully charged, the scrolling will stop and all bars will be on (steady).

SWITCHING ON

① If your phone has an extendable antenna, extend the antenna fully.

② Press and hold the **ON** key.

The phone will carry out a short self-test, briefly displaying the 'wake-up' message. (This message is programmed by your dealer, but you may change it if you wish; refer to 'Changing the wake-up message', page 29, for further details).



When the **ON** indicator appears, the phone is ready for use.

If the **NO SVC** indicator remains on, then you may be outside the cellular service area, and will not be able to make or receive calls.

Remember, to make or receive any calls, your phone must be switched on and in service.

If you are using the SID function (refer to 'SID Screen (Menu 18)', page 48, for details):

When SID is switched on, and specific carriers are not available in your area, then the **NO** part of the **NO SVC** indicator may flash; in this instance you may be able to make emergency calls, but will not be able to make or receive any calls.

As with any other radio-transmitting devices, avoid prolonged contact with the antenna when the phone is switched on.

SWITCHING OFF

① Press and hold the **ON** key.

The display will become blank.

If the charger is connected, the **B** indicator will remain on, and charging will continue.

NOTE: Switch off the phone before removing the battery.

BASIC FUNCTIONS

RECEIVING A CALL

- 1 Press any key except **ON** or the volume keys.

An incoming call is denoted by a ringing tone, and the **CALL** message flashing on the display.

If the **SILENT SERVICE** option (Menu 6) has been selected there will be no ringing tone; the keypad and display lights will flash instead, and only a short beep will be heard (refer to 'Ringing volume (Menu 6)', page 39).

If you do not answer a call, the **CALL** message will remain on the display (indicating a missed call); to clear the display, press any key.

'Any-key answering' facility: Any key (except **ON** or the volume keys) may be pressed to answer a call (except when 'keyguard' is active). If 'keyguard' is active, you must press the **SEND** key to answer the call. If you receive a call while entering a number, the call will be answered on the first keypress after the ringing starts.

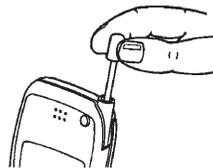
- 2 To end the call, press **END**.

CALLER ID

Some network providers have introduced Caller ID in their markets. This automatic feature displays the phone number of the calling party before you answer the call. The phone also looks for a matching number in its directory, and if found, displays the associated name. If the Caller ID information is not available the phone displays **NUMBER UNAVAIL**. The phone displays **NUMBER RESTRICT** when the caller withholds the Caller ID information.

MAKING A CALL

- 1 For best reception, pull the antenna up to extend fully. Do not leave the antenna partly extended.
- 2 Enter the number you wish to dial. Remember to include the area code



(if this is necessary on your system) even if you are making a local call. The number will be displayed.

- 3 To correct a mistake, press **CLR** to delete the last digit, or press and hold **CLR** to clear the whole display (then re-enter the number).
- 4 Press **SEND**. The **IN USE** indicator will appear on the display, and the number will disappear.
- 5 To end the call, press **END**.

Notes:

If NO SVC is displayed:

You are outside the cellular service area.

If NOT ALLOWED is displayed:

The call is not allowed or your phone is locked. (Refer to 'Call restrict (Menu 14)', page 43 and 'Lock phone (Menu 0)', page 34).

If the signal is poor:

The quality of your call depends on the signal strength of the cellular signal in your area. The signal strength indicator on the display ('S' in diagram right) shows received signal strength. The more bars showing, the stronger the signal.



If the signal is poor, try moving to a different position. If you are using the phone in a building, you may find that reception is better near a window.

To adjust the earpiece volume:

On the side of the phone, press Δ to increase the volume (maximum level is 5) or ∇ to decrease the volume (minimum level is 1). The volume level you select is displayed. If you try to adjust the volume below level 1, or above level 5, the phone gives a warning beep.

If you are using the handsfree option, the handsfree volume is adjusted. The volume levels for the phone, and handsfree option, are stored independently.

MAKING EMERGENCY CALLS

EITHER:

- 1 If the phone is not on, switch it on.
- 2 Press and hold the **CLR** key for several seconds to ready the phone for calls.
- 3 Key in the emergency number for your present location (e.g. 911, 112 or other official emergency number). Emergency numbers vary by location.
- 4 Press **SEND**.

OR:

Press **9** for two seconds or more.

Note: Official emergency numbers vary by location (e.g. 911, 112 or other official emergency number). However, only one emergency number is programmed into your phone to be dialed automatically by one key emergency dialing, which may not be the proper number in all circumstances. One key emergency dialing does not operate when the keyguard feature is in use and when the Emergency 9 key function is set to OFF. Emergency 9 key is set to OFF when the phone leaves the factory.

QUICK WAYS OF DIALING

Making international calls

To make an international call, either dial the number in the normal way (i.e. starting with the international prefix), or use the built-in quick method, utilizing the internationally-recognized '+' character; '+' is available on the * key.

To use the quick method:

Press * * ('+' will be displayed), instead of entering the international prefix, then dial the remainder of the number. For example, calling a UK number can be done by entering a number starting '* * 4 4'.

When sent, the international prefix (for the NAM currently selected) will be generated automatically. Note, however, that if you store a number using the international prefix '+', then when recalled it will be displayed with the appropriate dialing code.

One-touch dialing

The phone is equipped with one-touch dialing keys. Simply press any one of these keys to dial the associated number (you do not need to press **SEND**).

The following keys offer one-touch dialing:

- * Dials the number stored in memory location 96; press and hold the key for 2 seconds. You may store any number in this location.
- # Dials the number stored in memory location 97; press and hold the key for 2 seconds. You may store any number in this location.
- 9 Dials the emergency number (programmed by your dealer); press and hold the key for 2 seconds. This function will not operate if key-guard is active, or if the 'Emergency 9 key' function (Menu 13) has not been set to ON. The emergency number is programmed by your dealer, and stored in a special location. You cannot change this number, neither can you recall the number to the display without dialing the number (if you press **STO** or **RCL** then hold **9**, you will dial the emergency number). Refer to 'Making Emergency Calls', on page 13.
-  Dials the number stored in memory location 98. This location may already contain your voicemail number string, but you may store any number in this location (e.g. if you are not a subscriber to voicemail). Refer to 'Using voicemail/favorite number', page 15, for further details.

NOTE: When keyguard is activated, none of these keys are operational for one-touch dialing.

When in a call, the *****, **#** and **9** keys do not operate as one-touch dialing keys; instead, they revert to their normal (DTMF tone-dialing) functions.

When in a call, the  key does not operate to make a further call. Instead, pressing this key would force DTMF data to be sent if there is data waiting to be sent. For example, the string stored in voicemail memory location 98 might contain the voicemail phone number, then a 'w' and some DTMF data; once a call to the voicemail number had been established, a second press of the  key will send the DTMF data.

You may link any memory location to a one-touch dialing key; this will enable you to dial the phone number stored in that location, by simply pressing the key. To do this, store the number of the memory location (i.e. one or two digits only) to be linked, in any of the one-touch dialing memory locations. For example, to link the number stored in memory location 33 to the  key, store '33' in memory location 98 (voicemail/favorite number); then, when you press , the phone number in memory location 33 will be dialed automatically (speed dialed). This function has the following benefit:

You may change the 'favorite' number which is dialed when the  key is pressed; e.g. you may keep several such numbers in normal memory locations, and select the required number by simply storing its location number in location 98, as required. This is preferable to copying contents that exist in other locations to location 98, as this cannot be done when the contents has a name (any particular name can be stored in only one location).

Using voicemail/favorite number

The  (voicemail) key is designed to allow access to your voicemail (or favorite number) simply by pressing the key once (there is no need to press **SEND**). Once a call is established, a second press of this key will send a PIN number (or DTMF string) if this has been stored.

The voicemail/favorite number facility uses the number stored in memory location 98. You may store any number in this location, if you do not wish to use the voicemail facility. Whatever number is in location 98 will be dialed automatically when  is pressed.

A typical voicemail number string would be: '222w3333', where '222' is the voicemail number allocated to you by your cellular service supplier, 'w' is the wait character (this is entered by pressing * * * *), '3333' is your voicemail PIN code (which would be sent after the second press of the  key).

Please note that the voicemail service is a system feature, and may not be available on your network. To be able to use voicemail, it must be available on your network, and you must be a subscriber to this

service. For further details, ask your network provider. For specific operating instructions refer to the appropriate documentation which may be issued by your network provider.

SPEED DIALING

Speed dialing is the quickest way to recall and dial a number, and is particularly useful for frequently-used numbers. You can speed dial any number already stored in a memory location either by entering the location number or the name stored with the number to be called.

- 1 Enter the number of the memory location containing the number to be dialed (e.g. **2**).

Alternatively, press **ABC** (to select alpha mode), then enter the name stored with the number to be dialed.

- 2 Press **SEND**.

The phone will recall the number/name from memory, display it briefly, then dial the number. If the memory location contains no number, or the name was not found, then no call attempt will be made. If the memory location is empty, the message **EMPTY** (if in number mode) or **NOT FOUND** (if in alpha mode) will be displayed.

Last number redial

The phone stores (automatically) the last five numbers (together with any associated names) which you have called or attempted to call. Numbers previously stored are sequentially overwritten by each new one (if it differs from the previous); the last-called number replaces the earliest stored number.

To make a call to the number you called last:

Ensure the display is clear, then press **SEND**. The number will appear briefly on the display.

To make a call to any of the other (four) last-dialed numbers:

- 1 Press **0 RCL**.
- 2 Press **^** and **v** to scroll the numbers (i.e. in locations 00 to 04), until the desired number is displayed.

3 Press **SEND** to make a call to the number displayed.

Using 'Clear Last Call' (Menu 10), you can set the group of last-dialed numbers to be either cleared or retained when the phone is switched off.

RECORD OF MISSED CALLS

A history of missed (unanswered) calls is stored automatically in the "MESSAGES" Menu (Menu 20). The phone shows the number of missed calls with *X MISSED CALLS* (the character "X" represents the number of missed calls). To view the list of calling numbers, press **MENU ^ STO STO**. Using the keys **MENU 20 STO** will also bring you to the same menu. You can then scroll through the list of numbers using the arrow keys. Press **SEND** to dial the number that is currently displayed. The Caller ID feature only stores numbers in the message menu.

Note that *CALL* still flashes on the phone to indicate an incoming call (see 'Receiving a call', page 11) if the phone cannot receive network information to activate these features.

RECEIVING SHORT MESSAGES

If you cannot answer a call for any reason, the caller or switchboard can leave a short message for you, using the Digital Messaging Service (DMS).

The message can be the caller's telephone number, a short text message, or a message to say you have a voicemail.

When you receive a message it is stored, and displayed on your phone, so you can read it immediately. If you prefer, you can clear the display and read the message later. Your phone can store up to 20 messages at any time and you can delete any you no longer need.

If someone leaves the same message twice, the most recent message is displayed and stored as usual, but the old message is deleted from the message store.

Receiving a message

When you receive a message, the phone beeps. The message is displayed, and the **MSG** indicator appears.

- if you have selected the 'Short Alarm' option, the phone beeps 3 times and is then silent.
- if you have selected the 'Long Alarm' option, the phone beeps continuously for 15 minutes.
To stop the alarm, press any key except ON/OFF or the volume keys.
- if you have selected the 'No Alarm' option, there is no audible alarm. Only the message and **MSG** indicator are displayed.

To change the message alarm, see page 49.

If 20 messages are already stored when the new message arrives, the oldest (message 20) is deleted automatically.

Missed Calls Notification

If you miss a call, the phone displays *n Missed Call(s)* and stores the phone number of the person who tried to call you. (If you miss more than one call, *n* represents the number of missed calls.) You can view the phone numbers of Missed Calls (if available) in Menu 20. These phone numbers appear in Menu 20 only if your network supports Caller ID and the calling phone number is available.

Reading a message

The message displayed can be:

A message to say you have a voicemail.

The message you see depends on your switchboard. The message may show the number of voicemail messages you have received (and ! if the message is urgent). Alternatively it may be a call back number for your voicemail.

A short text message.

Text messages can be up to 14 characters and are predefined by the switchboard. One text message, for example, might read "Call home".

A call back number.

If you are unavailable, the caller can leave a phone number of up to 15 digits for you to call back. To dial a displayed phone number automatically, press **SEND**.

Missed calls.

If someone tries to call you but you miss the call, the phone stores the number of the person who tried to call you (if available; see 'Missed Calls Notification' on page 18).

To read other messages, stored earlier:

- 1 Scroll through the list using **▲** and **▼**.

Each message has a number, shown in the top right hand corner of the display. The most recent message is number 1.

When you reach the last stored message and try to scroll down further, **NO MORE MESSAGES** is displayed.

Clearing the display

To clear the message from the display, press any key except the scroll and volume keys.

Displaying a stored message

When you wish to display a stored message:

- 1 Press **MENU** and enter **2 0**.
READ MESSAGES is displayed.
- 2 Press **STO** to select this option.
The most recent message is displayed.

Deleting a message

- 1 Press **MENU** and enter **2 0**.
READ MESSAGES is displayed.
- 2 Press **▼** until **DELETE MESSAGE** is displayed.
- 3 Press **STO**.
- 4 Display the message you wish to delete, using the **▲** and **▼** scroll keys.
- 5 Press **STO**.
DELETED is displayed momentarily.
The list of stored messages is then re-ordered and the next message is displayed. If the list is empty, **NO MESSAGES** is displayed.
- 6 To leave the menu, press any key except the scroll and volume keys.

USING THE MEMORY

GENERAL INFORMATION

Memory locations provided:

- 78 'standard' locations. Each of these may be used to store a number and a name.
- Five locations (numbered 00 to 04) which, together contain the last 5 numbers you dialed. These locations are reserved exclusively for redial numbers, stored automatically by the phone. Location 00 contains the most recent number dialed; location 04 contains the oldest. (See 'Last Number Redial', page 16 for details.)
- One scratchpad memory (location # #); this may be used to store a number during a call.
- One location (99) which holds your own number and the wake-up message.

Location No. Details

1-69	69 standard memory locations. You can use each one to store a name and number of your choice.
70-89	These memory locations are not available for your use.
90-95	6 standard memory locations. You can use each one to store a name and number which you can call even when the ALLOW M90-M95 call restrict option is selected. The call restrict option restricts the outgoing calls you can make. See page 43 for details.
96	Holds the number that is dialed when you press the * one-touch dialing key for 2 seconds.
97	Holds the number that is dialed when you press the # one-touch dialing key for 2 seconds.
98	Holds your voicemail number or 'favorite' number which is dialed when you press the  one-touch key.

99 Holds your own number and the 'wake-up message' – the name or text displayed when you switch the phone ON. You cannot change your number, but can change the wake-up message. See 'Changing the wake-up message' on page 29.

Memory locations 90-99 are allocated for specific purposes. If you wish, however, you may store any information in these locations, in the normal way (except for location 99 where you can store an alpha wake-up message, but cannot store a different 'own number').

Length of numbers and names you may store:

The longest number you can store in a memory location is 30 digits. The longest name you can store is 16 characters.

If you want to store a number and a name, then a maximum of 28 digits and characters can be held in each memory location. For example, if you want to store a 24 digit number, then the maximum length of the accompanying name is 4 characters.

If the name you enter is too long for the space available, one of the following warnings is displayed when you try to store the name.

- ***NAME TOO LONG***. This indicates that the whole name will not fit. Press **STO** again if you wish to store the truncated name.
- ***NO ROOM FOR NAME***. This indicates that there is no room for any name (no name will be stored).

A name may include any alpha characters, spaces or hyphens.

Memory linking:

The memory linking function allows two or more memory locations to be linked. This permits long strings of characters, such as a phone number with an accompanying DTMF string, to be sent without having to access manually more than one location.

To link two locations: Enter the phone number, then a '+' character (press * *) and the number of the second memory location. Store this in the first location. Enter the DTMF string, and store this in the second location.

To send the DTMF string: Recall and dial the phone number in the first location. When the call is established, press **MENU SEND** to send the DTMF string in the second location. For full details, refer to 'Send DTMF (Menu 17)', page 46 and 'To join two memory locations', page 48.

STORING INFORMATION

- 1 With number mode selected, enter the phone number. Remember to include the area code, and any international code, if necessary. To use '+' as the international prefix; press * *.
- 2 If you wish to enter a name, press **ABC** to select alpha mode, then enter the name (for further details, refer to 'Entering a Name', page 24). All stored names must be different. You cannot store a name that is already stored in any of the memory locations 1-69 or 90-98.

NOTE: *When you wish to store a number and a name, always do this as one operation.*

- 3 Press **STO**. The message **STORE** prompts you to specify a memory location number.
- 4 If you want to store the information in the next free location, as indicated by the number in the upper right hand corner of the display, just press **STO**. Otherwise, enter a memory location number of your choice (1 to 69 or 90-98). If entering a one-digit number (i.e. for locations 1-9), you may press **STO** again to complete the operation or wait a moment for the message **STORED** to appear.

If storing was successful, the message **STORED** will be displayed, confirming that the information has been stored in the location number shown on the display.

However:

- If the location is already occupied when storing a new entry, **REPLACE CONTENT?** is displayed.
- If the location is empty but the name being stored exists in another location, then **MOVE NAME?** will be displayed. Confirmation of this causes the location containing the name previously stored to be erased when the new name is stored.

In any of these instances, *either*:

- Press **STO** (within 8 seconds) if you want to replace the existing information, *or*
- Press **CLR** or wait until the message **STORE NOT DONE** appears if you do not want to delete the existing information.

The information you tried to store will then re-appear on the display, and you can then store it in another location.

There are some situations where the store cannot be done. In such an instance, a message is displayed:

- If there is no room to store a new entry, **MEMORY FULL** is displayed.
- If the location chosen is full, and the name being stored already exists in another location then **LOCATION FULL** is displayed. Either wait for the information you tried to store to re-appear, or press **CLR**, then store the information in another location.
- If the name entered is too long to be stored, then **NAME TOO LONG** is displayed and the name is truncated. Press **STO** again to store the truncated name.
- If there is no room at all for the name, then **NO ROOM FOR NAME** is displayed and the name is deleted. Press **STO** again to store only the number.

Alternative quick method for storing to the 'one-touch dialing' locations 96, 97 (and # keys respectively) and location 98 (voicemail/favorite number 

- 1 Enter the number/name.*

- 2 Press **STO** then press the specific one-touch dialing key (e.g. * or #) for 2 seconds.

To store a voicemail/favorite number in location 98:

- 1 Enter the number. (Refer to 'Using voicemail/favorite number', page 15).
- 2 Press **STO** then .

ENTERING A NAME

- 1 If in number mode, press **ABC**. The **NAME?** prompt and **ALPHA** indicator will appear, indicating that the phone is in alpha mode; i.e. when you press a key, letters will appear instead of numbers.
- 2 Press the key labeled with the letter you want. Press it once to obtain the first letter, twice (before the cursor appears) to obtain the second, and three times (before the cursor appears) to obtain the third. If you miss a letter, just keep pressing the key. To enter a space, press **0**. To enter a hyphen press **1** three times.
- 3 Select further letters in the same way.
- 4 If you want two (or more) letters on the same key (e.g. AA or AB), *either*:
 - press the key to select the first character, wait until the cursor appears, then press the key to select the next character, *or*
 - press the key to select the first character, press *****, then press the key to select the next character (this permits faster entry).
- 5 When you have finished entering the name, you may leave alpha mode (and select number mode) by pressing **ABC** again (e.g. to view, enter or edit the associated number).

CORRECTING MISTAKES

- 1 Press **CLR** to delete the last digit or character.
- 2 Press and hold **CLR** to clear the whole display. Note that this clears both the number and associated name.

DISPLAYING 'HIDDEN' NUMBERS

The phone will display up to 16 digits at a time. If you enter a number longer than this, the first digits will disappear off the side of the display. If you type more than 32 digits, the first digits will be lost.

- ① To view the 'hidden' digits press and hold **RCL**.
- ② To view the original display again, release **RCL**.

Having displayed a long number, remember to clear the display (press and hold **CLR**) before attempting to recall information from a memory location (as the **RCL** key is dual function, and will not recall memory locations while a number longer than 16 digits is being displayed).

CLEARING THE CONTENTS OF A MEMORY LOCATION

NOTE: *Once deleted, the contents of a memory location cannot be recalled.*

- ① Press and hold **CLR** to clear the display.
- ② Press **STO**. The message **STORE** prompts you to specify a memory location number.
- ③ Enter the number of the memory location you want to delete. The message **REPLACE CONTENT?** will appear.
- ④ Press **STO** (within 8 seconds). The message **STORED** and the memory location number will be displayed briefly, confirming that the memory location has been cleared. If you do not press **STO** within 8 seconds, or if you press **CLR**, the message **STORE NOT DONE** will be displayed, and the contents of the location will not be cleared.

MOVING THE CONTENTS OF A MEMORY LOCATION

You may move the name and number stored in one location to any empty location. If you attempt to move the contents of a location which contains only a number (i.e. the name part is empty), the number will be copied, rather than moved.

NOTE: Duplicate names are not allowed (i.e. you may store any particular name in only one memory location). If you attempt to store a name which is already stored in another memory location (e.g. move it) the message **MOVE NAME?** will remind you that the name already exists. If you accept this, and store the contents in the new location, the original name **and number** will be erased.

To move a name and number (e.g. from location 14 to 25):

- 1 Press **RCL 14** (or, alternatively, you may press **ABC** to select alpha mode, enter the name stored in location 14, and press **RCL**).
- 2 Press **STO 25**. If location 25 is empty, **MOVE NAME?** will be displayed (if it is occupied, **LOCATION FULL** will be displayed; in this instance choose another location, e.g. press **STO 26** to store in location 26).
- 3 Press **STO** to move both name and number. The message **STORED** will be displayed.

If you are 'moving' only a number (i.e. the name part is empty) to an occupied location, the message **REPLACE CONTENT?** will be displayed; press **STO** to overwrite the contents, and copy the number.

RECALLING INFORMATION BY MEMORY LOCATION NUMBER

- 1 Enter a memory location number then press **RCL** (e.g. for location 1 press **1 RCL**, or for location 12 press **12 RCL**).

The phone number stored in that memory location will be displayed. If the memory location is empty, the message **EMPTY** will appear.

- 2 To check the name stored in the same memory location, press **ABC**. If no name was stored with the number, the message **NAME?** will be displayed. To return to the number, press **ABC** again.
- 3 To call the number in the memory location, with either the number or the name displayed, press **SEND**.

Alternative quick method for recalling contents from the one-touch dialing locations 96 and 97 (and # keys respectively) and location 98 (voicemail/favorite number ):*

- Press **RCL** then press the * or # keys for 2 seconds.
- Press **RCL** then press the  key. The number will then appear on the display.

RECALLING INFORMATION BY NAME

- 1 Press **ABC** (to select alpha mode).
- 2 Enter the name, or the first few letters of the name, you want to recall.
- 3 Press **RCL**. The name, and the number of the memory location in which it is stored, will appear on the display.
- 4 To check the phone number stored in the same memory location, press **ABC** again.
- 5 To call the number in the memory location, with either the name or the number displayed, press **SEND**.

SCROLLING FOR A NUMBER

- 1 To scroll the stored phone numbers, press **▲** or **▼**. If you have just recalled a memory location by number, scrolling will start from that location. You will scroll all used memory locations in numerical order.
- 2 When you find the number/name you want, press **SEND** to make the call.

SEARCHING FOR A NAME

- 1 Press **ABC** (to select alpha mode).
- 2 Press **▼** to display the name which is first in alphabetical order (of first letter), or press **▲** to display the name which is last. To display the other stored names, press **▲** or **▼** until you find the name you are looking for. The number of the memory location in which each displayed name is stored will appear in the top right-hand corner of the display.

- ③ To search faster, just enter the first letter of the name you are looking for, and then press **RCL**. The first name beginning with this letter will appear on the display. To scroll forward, press **▼** (within 15 seconds) to display the next name, and so on. (If no matching name is stored, the message **NOT FOUND** will be displayed.)
- ④ To check the phone number stored with the name, press **ABC**. To continue scrolling the names, press **ABC** again and use **▲** or **▼**.
- ⑤ When you find the name you want, with either the name or the number displayed, press **SEND** to call the number.

USING THE SCRATCHPAD MEMORY

In addition to the 78 'standard' memory locations, the phone has one short-term memory location (the 'scratchpad') in which a number and/or name entered can be stored temporarily.

The scratchpad memory is intended primarily to enable you to store a number during a call, but may be used at any time.

To store a number/name (e.g. during a call):

- ① Enter the number (remember to include the area code). To enter a name, press **ABC** to select alpha mode, and enter the characters.
- ② Press **STO ##**. The number/name will be stored in the scratchpad memory; any number stored previously will be overwritten (deleted).

To recall the number (i.e. after the call is ended):

- ① Press **RCL ##**. The number will be displayed. To see any attached name, press **ABC**.
- ② To call the number, press **SEND**.

To move a number/name from the scratchpad to a permanent memory location, recall the number/name, then store it as described in 'Storing Information', page 22.

REMINDER MESSAGE FACILITY

You may enter a message (a name and/or a number), just before switching off the phone, and then have that message recalled **automatically** when you next switch on (e.g. to remind you to make a call).

When recalled, the reminder message is shown in alpha mode if there is a text part, otherwise in number mode. You may clear, edit or store the message, or call the number, by switching to number mode (press **ABC** if in alpha mode) and pressing **SEND**.

To enter and store a reminder message:

- 1 Enter the number or name on the display as necessary (press **ABC** to switch between number mode and name mode). Alternatively, you could recall a number or name already stored.
- 2 Press **MENU** momentarily, then press and hold **ON**. The phone switches off, and stores the reminder message automatically.

When you next switch on the phone, the message will be displayed (once); the message will then be erased automatically from memory, and will not appear when you switch on again.

DISPLAYING YOUR OWN NUMBER

Your own number, which is stored permanently in memory location 99, is derived from NAM data which has been programmed by your dealer (you cannot change the number).

To recall your own number:

- 1 Press **RCL 99**.

If your phone is registered on two networks, the number displayed will be that for the network currently used (and relates to the currently-selected NAM); refer to 'NAM Select (Menu 7)', page 39.

CHANGING THE WAKE-UP MESSAGE

The wake-up message is the message which is displayed briefly when the phone is switched on (the message relates to the currently-selected NAM). The wake-up message is normally a name (i.e. text), and it is stored in the alphanumeric part of memory

location 99. If the alphanumeric part of location 99 is empty, then your own number, which is stored in the numeric part of location 99, will be displayed instead.

If your phone is registered on two networks, the wake-up message (and your own number) displayed will be that for the network currently used; refer to 'NAM Select (Menu 7)', page 39.

You may view the wake-up message, at any time, by recalling the alphanumeric part of memory location 99.

If you wish, you may change the wake-up message by storing a different name into this location.

(Please note that you cannot change or delete your own number, which is stored in the numeric part of memory location 99.)

To change the wake-up (text) message:

- ① **Either**, press **ABC** to select alpha mode and enter the text message, **or** press **RCL 99** to recall the current contents, press **ABC** to select alpha mode and enter the text message (if necessary, first delete any name already stored).
- ② Press **STO 99**. The message **REPLACE CONTENT?** will be displayed (even if the new name entered is the same as the old name).
- ③ Press **STO** to store the new name; the message **STORED** will appear. If stored, the new name is written to the NAM data and stored in the alphanumeric part of location 99 (having no effect on the numeric part).

If you attempt to store a different phone number in memory location 99, the message **NOT ALLOWED** will be displayed, and the number and name will not be stored.

MENU FUNCTIONS

USING THE MENU

The menu allows you to:

- view the current setting of certain functions, and to change the setting of any function to one of the options offered,
- to select an action offered directly,
- to view information.

There are two methods of accessing menu functions:

- ‘menu’ method (press **MENU**, use **^** or **v** and press **STO**).
- ‘shortcut’ method (press **MENU** and enter a function number).

See menu method below and shortcut method on the next page.

The number of the menu function currently selected is shown in the upper right corner of the display.

Some menus are ‘secure’, and you must enter the lock code or security code before you can access them. On selecting a menu of this type, you will be prompted with one of these messages:

LOCK CODE? – you should enter your 4-digit lock code (default 1234) and then press **STO**, or

SECURITY? – you should enter your 5-digit security code (default 12345), and then press **STO**.

Normally, your dealer will give you these code numbers when you purchase the phone. It will be helpful to memorize them. Do not leave them written where they can be recognized. You may change the lock code, using menu 11, but you cannot change the security code.

To access the menu using the menu method:

- 1 Press **MENU**. The **USE**  **TO VIEW** message prompts you to scroll the menus.
- 2 Press **^** or **v** to scroll the functions until the one you want is displayed.
- 3 Press **STO** to select the function.
If prompted, enter the lock code or security code, and press **STO**.

The option currently selected, or status, may be displayed.

- ④ To change the setting to any of the options offered, press **▲** or **▼** to scroll the options until the one you want is displayed.
- ⑤ To select the option displayed (or to accept the lock code or PIN code entered), press **STO**.
- ⑥ To quit the menu function, without changing the setting, press **CLR** (or wait for the timeout).

To access the menu using the shortcut method:

- ① Press **MENU**, then enter the number of the menu function required (see 'List of Menu Functions', on the next page).
- ② If prompted, enter the lock code or security code, and press **STO**.

The option currently selected, or status, may be displayed (the menu function name is not displayed first, when using the shortcut method).

When selecting menu 1 or menu 2: there will be a short pause before the options currently selected for these menus appear.

- ③ To change the setting to any of the options offered, press **▲** or **▼** to scroll the options until the one you want is displayed.
- ④ To select the option displayed (or to accept the lock code or PIN code entered), press **STO**.
- ⑤ To quit the menu function, without changing the setting, press **CLR** (or wait for the timeout).

LIST OF MENU FUNCTIONS

Menu Name	Shortcut Keys	Description
<i>LOCK PHONE</i>	MENU 0 (L)	Locks/unlocks the phone.
<i>SYSTEM SELECT</i>	MENU 1	Selects roaming mode (system feature).
<i>RINGING TYPE</i>	MENU 2	Selects the ringing tone type.
<i>CALL TIMERS</i>	MENU 3 (S)	Displays length of calls. Resets the timers.
<i>LIGHTS CONTROL</i>	MENU 4	Selects operation of display and keypad lights.
<i>KEYPAD TONES</i>	MENU 5	Switches keypad tones on/off.
<i>RINGING VOLUME</i>	MENU 6	Selects volume of ringing tone.
<i>NAM SELECT</i>	MENU 7	Displays and selects cellular number/network.
<i>AUTO ANSWER</i>	MENU 8	Sets automatic answer on/off.
<i>ACCESSORY MENU</i>	MENU 9	Controls accessories connected to the phone.
<i>CLEAR LAST CALL</i>	MENU 1 0	Sets the last-called numbers to be cleared or retained when phone is switched off.
<i>CHANGE LOCK CODE</i>	MENU 1 1 (S)	Allows you to change lock code.
<i>DATA MODE</i>	MENU 1 2	Selects data mode (in a call).
<i>EMERGENCY 9 KEY</i>	MENU 1 3 (L)	Sets 9 key on/off for one-touch dialing of emergency calls.
<i>CALL RESTRICT</i>	MENU 1 4 (S)	Sets call restrictions.
<i>MEMORY LOCK</i>	MENU 1 5 (S)	Sets memory access restrictions.
<i>ACTIVATE KEYGUARD</i>	MENU * or MENU 1 6	Locks/unlocks the keypad.
<i>SEND DTMF</i>	MENU SEND or MENU 1 7	Sends DTMF tones (in a call).

<i>SID SCREEN</i>	MENU 1 8 (L)	Selects SID to on/off. NOTE: <i>Menu 18 is available only if SID information has been programmed into the selected NAM by your dealer.</i>
<i>MESSAGE ALARM</i>	MENU 1 9	Selects the audible alarm used when you receive a message.
<i>MESSAGES</i>	MENU 20	Allows you to read or delete a message.

(L) = requires entry of 4-digit lock code (default is 1234).

(S) = requires entry of 5-digit security code (default is 12345).

DESCRIPTION OF MENU FUNCTIONS

You may access any of the menu functions by either the menu or shortcut method. For simplicity, in each of the following descriptions of menu functions, only the shortcut method is described.

Lock Phone (Menu 0)

You can lock your phone, using a four digit lock code, to help prevent unauthorized use.

If you forget your lock code, you can change it using menu 11.

When the phone is locked:

- No outgoing calls can be made, but calls may be possible to the emergency number programmed into your phone (e.g. 911, 112 or other official emergency number), including calls by one key emergency dialing ('the 9 key').
- Calls can be received, as usual.
- Memory locations cannot be viewed or changed.

To lock, or unlock, the phone:

- ➊ Press **MENU 0**. The message *LOCKCODE?* prompts you to enter your lock code.
- ➋ Enter your 4-digit lock code (default 1234). It will be displayed as asterisks (******).
- ➌ Press **STO** to confirm your entry.

Once locked, you can unlock the phone by repeating the procedure described on the previous page.

If you make a mistake when locking or unlocking the phone, the message **CODE ERROR** will be displayed. In this instance, start again from the beginning.

On entering the correct lock code:

- When locking the phone, the message **LOCKED** will be displayed, and will remain to remind you that the phone is locked.
- When unlocking the phone, the message **UNLOCKED** will appear briefly.

For other options, which provide more-selective restrictions, you may use the Call restrict function (Menu 14), page 43, or the Memory lock function (Menu 15), page 44.

System Select (Menu 1)

Each cellular service area can have two cellular service suppliers, called carriers. One carrier operates the 'A' system, and the other carrier operates the 'B' system (these systems are generally known as 'non-wireline' and 'wireline', respectively). Your phone is designed to work with both carriers.

This menu function allows you to program your phone for optimum operation when in your home service area or when away from your home area (this is called roaming). You may select any of the following roaming modes:

System A NAM Selected*	System B NAM Selected*	
<i>HOME AREA</i>	<i>HOME AREA</i>	The phone uses only the home area and home system.
<i>BOTH SYSTEMS</i>	<i>BOTH SYSTEMS</i>	The phone uses either system A or B, whichever is the stronger signal.
<i>HOME TYPE A</i>	<i>HOME TYPE B</i>	The phone uses only the home system.
<i>NON-HOME TYPE B</i>	<i>NON-HOME TYPE A</i>	The phone uses only the non-home system.

*The home system depends on the current NAM selection; refer to 'NAM Select (Menu 7)', page 39.

When you buy your phone, you may register (receive a phone number) with either or both of your local carriers.

Contact the office of your home cellular phone company for information about the roaming agreements they have with other cellular phone companies.

In some areas, roaming telephones are automatically recognized by the cellular system. In other areas, you must contact the cellular phone operator before the system can recognize your phone. The company needs to know your telephone number, the ESN (Electronic Serial Number) of your phone, and how you plan to pay for your calls. There is usually an additional charge for roaming calls.

NOTE: *The ESN can be found on the phone's label inside the battery compartment.*

To select the roaming mode:

- ➊ Press **MENU 1**. (Wait for the currently selected option to appear.)
- ➋ Press **▲** or **▼** to select the roaming mode you prefer.
- ➌ Press **STO** to confirm the setting. The phone will use this setting in a few seconds.

For the function of the **ROAM** indicator on the display, refer to 'Display Indicators', page 7.

Ringling Type (Menu 2)

This function allows you to select, and demonstrate, any one of the five types of ringling tones:

- the standard tone (**STANDARD**), or
- one of four optional tones (**OPTIONAL 1, 2, 3 or 4**).

To select the ringling tone:

- ➊ Press **MENU 2**. (Wait for the currently selected option to appear.)
- ➋ Press **▲** or **▼** to choose the type you prefer.
- ➌ Press **STO** to confirm the setting.

Call Timers (Menu 3)

This function allows you to check the duration of the calls you have made, on the currently-selected NAM (phone number), and to reset the call timers.

You may display three call timers; shown in hours, minutes and seconds:

- Duration of the current or last call (*LAST .. : .. : ..*).
- Duration of all calls you have made on the currently active NAM except the current call (*TOTAL .. : .. : ..*).
- Non-resetable timer showing duration of all calls you have made on the currently active NAM except the current call (*LIFE : ..*).

You can use the *RESET TIMERS* option to reset the *LAST* and *TOTAL* timers.

The LIFE timer can not be reset.

To display the call timers, or reset the call timers:

- 1 Press **MENU 3**. The duration of the current or last call will be displayed (*LAST .. : .. : ..*).
- 2 Press **▼** once to display *TOTAL*, twice to display *LIFE*, and three times to display *RESET TIMERS*.

To reset the call timers:

- 1 With the message *RESET TIMERS* displayed, press **STO**. The message *SECURITY?* prompts you to enter your security code.
- 2 Enter the 5-digit security code (default 12345), and press **STO**. On entry of the correct code, the message *TIMERS CLEARED* will be displayed to confirm that the timers have been set to zero. If you entered an incorrect security code, the message *CODE ERROR* will appear; in this instance, repeat the above procedure.

NOTE: The call timers are designed to give an approximate indication, and may not reflect actual network usage.

The current timer does not update during a call.

Lights Control (Menu 4)

This function allows you to select the operation of the keyboard and display illumination. To conserve battery power, set to *LIGHTS OFF*.

When set to **LIGHTS ON**:

- If the phone is used as a handportable, or is connected to a charger: The lights switch on when a key is pressed; they remain on for 15 seconds after the last keypress, then switch off.
- If the phone is connected to a car kit: The lights are on continuously.

When set to **LIGHTS OFF**:

- If the phone is used as a handportable, or is connected to a charger: The lights are continuously off.
- If the phone is connected to a car kit: The lights switch on when a key is pressed; they remain on for 15 seconds after the last keypress, then switch off.

To set operation of lights:

- 1 Press **MENU 4**.
- 2 Press **^** or **v** to select **LIGHTS ON** or **LIGHTS OFF**.
- 3 Press **STO** to confirm the setting.

Keypad Tones (Menu 5)

This function allows you to set the keypad tones on or off.

When set to **TONES ON**, a tone will be heard with each keypress. When set to **TONES OFF**, no keypress tone will be heard.

To set keypad tones on or off:

- 1 Press **MENU 5**.
- 2 Press **^** or **v** to select **TONES ON** or **TONES OFF**.
- 3 Press **STO** to confirm the setting.

If the phone is connected to a car kit:

The options will be different; you may select one of three volume levels (**VOLUME LEVEL 1, 2, 3**) as well as **TONES OFF** (press **^** or **v** to select).

DTMF tones can be sent (when in a call) even if the keypad tones are switched off.

Ringling Volume (Menu 6)

This function allows you to select and demonstrate the ringing volume level, or set it to off. You may select:

- **RINGING LOW**: Quiet ringing tone.
- **RINGING HIGH**: Loud ringing tone.
- **SILENT SERVICE**: No ringing tone; instead, when an incoming call is received, only a short beep will be heard, and the lights will flash. The message **SILENT** will be displayed (when you are not entering digits) to remind you that there will be no ringing tone. All other tones (including keypress tones), except warning tones, will be switched off.

To set ringing volume level:

- 1 Press **MENU 6**.
- 2 Press **▲** or **▼** to select the option you want.
- 3 Press **STO** to confirm the setting and hear a sample of the volume level.

If the phone is connected to a car kit:

The options will be different; you may select one of five volume levels (**RINGING LEVEL 1, 2, 3, 4, 5**) as well as **SILENT SERVICE** (press **▲** or **▼** to select) and **STO** to confirm.

NAM Select (Menu 7)

The phone has a two-number capability which lets you subscribe to competitive cellular services in your area and other cities. Your phone can be programmed (by your dealer) with up to two numbers; each is stored in a NAM (Number Assignment Module).

This menu function allows you to select either of your numbers (if two have been programmed).

NOTE: *You cannot change from one network (number) to the other during a call (if you do attempt to change the network, the message **CALL IN PROGRESS** will be displayed, and no action will result). If you are only registered on one network you cannot access the other.*

To display your number, or change the network/number:

- 1 Press **MENU 7**. The telephone number which the phone is currently using will be displayed.
- 2 Press **▲** or **▼** to select the other number/network.
- 3 Press **STO** to confirm. The phone will use this setting in a few seconds.

Auto Answer (Menu 8)

The Auto Answer function has 2 options: *AUTO ON* and *AUTO OFF*.

If **AUTO ON** is selected when the phone is connected to a Handsfree Car Kit and is in handsfree mode, the phone will automatically answer a call after the first ring. It does this by switching from standby to talk mode.

To set auto-answer on or off:

- 1 Press **MENU 8**.
- 2 Press **▲** or **▼** to select *AUTO ON* or *AUTO OFF*.
- 3 Press **STO** to confirm the setting.

Accessory Menu (Menu 9)

This function allows you to control accessories connected to the phone via a Handsfree Car Kit.

To select the accessory menus:

- 1 Press **MENU 9**. If no accessories are connected, or an accessory having no associated menu is connected, the message *NONE PRESENT* is displayed. If you have one or more accessories connected, the name of the first accessory is shown.
- 2 If you have more than one accessory connected, press **▲** or **▼** to scroll the accessory list, until you find the accessory whose setting you wish to change.
- 3 Press **STO** to select the desired accessory menu, then press **▲** or **▼** to scroll the options.
- 4 To store the new setting in memory press **STO**.

The messages generated by specific accessories will be found in the respective user guides supplied with them.

Clear Last Call (Menu 10)

This function allows you to set the phone to clear, or retain, (automatically) the last numbers dialed when the phone is switched off. The phone automatically stores the last five numbers dialed; refer to 'Last Number Redial', page 16, for further details.

To clear or retain the last numbers dialed:

- 1 Press **MENU 1 0**.
- 2 Press **▲** or **▼** to select **CLEAR LAST ON** (to clear the numbers) or **CLEAR LAST OFF** (to retain the numbers).
- 3 Press **STO** to confirm the setting.

Change Lock Code (Menu 11)

This function allows you to change the lock code of your phone. (You will need to enter your security code in order to change the lock code.)

To change the lock code:

- 1 Press **MENU 1 1**. The message **SECURITY?** prompts you to enter your security code.
- 2 Enter the five-digit security code (default 12345), and press **STO**. If you entered an incorrect code, the message **CODE ERROR** will appear. When you have entered the correct security code, the message **NEW CODE?** prompts you to enter your new lock code.
- 3 Enter the new four-digit lock code and press **STO**. The code may contain numeric digits only; other characters (e.g. **#**, *****) are not allowed. The message **STORED** confirms that the new lock code has been set.

Data Mode (Menu 12)

This function allows you to send data, while in a call. Your phone must be connected to a Handsfree Car Kit or a data-compatible accessory in order to send data.

To send data:

- 1 Press **MENU 1 2**. You must have a call in progress, otherwise the message **NO CALL ACTIVE** is

displayed. When the phone is in data mode, the message **DATA ACTIVE** is displayed.

For further information on sending and receiving data, refer to the user guide supplied with your data adaptor (e.g. FDP-1).

Emergency 9 Key (Menu 13)

This function allows you to set the one-touch dialing function for the emergency key (**9**) to on or off:

ON Allows you to make an emergency call by pressing and holding **9** for 2-3 seconds.

NOTE: Official emergency numbers vary by location (e.g. 911, 112 or other official emergency number). However, only one emergency number is programmed into your phone to be dialed automatically by one key emergency dialing, which may not be the proper number in all circumstances. One key emergency dialing does not operate when the keyguard feature is in use.

OFF Disables the ability to make an emergency call using the **9** key. This setting may be useful to prevent making unwanted emergency calls (e.g. by accidentally holding the key), without having to disable all keys by setting keyguard to on.

NOTE: The factory setting for this option is OFF.

To set the emergency key to on or off:

- ① Press **MENU 1 3**. The message **LOCKCODE?** prompts you to enter your lock code.
- ② Enter your 4-digit lock code (default 1234). The number will be displayed as asterisks (****), then press **STO**. If the correct lock code has been entered, the currently-selected option will be displayed.
- ③ Press **^** or **v** to select **EMERGENCY 9 ON** or **OFF**.
- ④ Press **STO** to confirm the setting.

Call Restrict (Menu 14)

This function allows you to restrict certain types of calls:

No Restrict (*ALLOW ALL*)

The phone operates normally (no call restrictions).

International Call Restrict (*ALLOW NATIONAL*)

International calls cannot be dialed (see note below). All other outgoing calls and incoming calls are allowed.

NOTE: *This option only restricts calls having a specific international dialing prefix, as programmed by your dealer. If any other international prefix is in use on your system, and you dial that prefix, then you will still be able to make international calls, even if this option is selected. With this option selected, it may still be possible to make any international call via the operator.*

Local Only (*ALLOW LOCAL*)

Only calls to local numbers having seven digits (or less) and emergency calls can be made (emergency calls can be made by normal dialing or by using one-touch **(9)** dialing). Incoming calls are allowed.

NOTE: *With this option selected, it may still be possible to make any call via the operator.*

Memory Calls Only (*ALLOW M90-M95*)

Only calls to numbers stored in memory locations 90 to 95 and emergency calls can be made (emergency calls can be made by normal dialing or by using one-touch **(9)** dialing). You may recall numbers from locations 90 to 95, but will not be permitted to store numbers to these locations. Incoming calls are allowed.

NOTE: *This option effectively takes memories 90 to 95 out of the memory locking scheme (Menu 15), and makes them readable. These memories will be readable, even if the **MEM NO ACCESS** Memory Lock option is selected. The Lock Phone function (Menu 0), page 34, however, sets all call restrictions and locking so that no memories are accessible.*

All these options will be temporarily overridden if the phone is locked (to lock the phone, use Menu 0), page 34.

To set the call restrict option:

- 1 Press **MENU 1 4**. The message **SECURITY?** prompts you to enter your security code.
- 2 Enter your 5-digit security code (default 12345). The number will be displayed as asterisks (*****), then press **STO**. If the correct code has been entered, the currently-selected option will be displayed.
- 3 Press **^** or **v** to select the call restrict option you prefer.
- 4 Press **STO** to confirm the setting.

Note: When calls are restricted, calls may be possible to the emergency number programmed into your phone (e.g. 911, 112 or other official emergency number). However, one key emergency dialing ('the 9 key') *may not operate depending on the type of restriction you chose.*

Memory Lock (Menu 15)

This function allows you to restrict access to all memory locations:

MEM NORMAL

The phone operates normally (no memory restrictions).

MEM READ ONLY

Storing is not allowed to any location (but any location can be recalled).

MEM NO ACCESS

Storing or recalling is not allowed (all locations).

NOTE: This option will be partially overridden if the **ALLOW M90-M95** Call restrict option (Menu 14), page 43, is selected.

To set the memory-locking option:

- 1 Press **MENU 1 5**. The message **SECURITY?** prompts you to enter your security code.
- 2 Enter your 5-digit security code (default 12345). The number will be displayed as asterisks (*****), then press **STO**. If the correct code has been entered, the currently-selected option will be displayed.

- 3 Press **^** or **v** to select the memory-locking option you prefer.
- 4 Press **STO** to confirm the setting.

You may recall your own number (in location 99), at any time, regardless of the **MEM NO ACCESS** memory locking option.

You cannot use the memory linking function to link to a memory that is barred from recall by the **MEM NO ACCESS** option.

For (limited) access to memories 90 to 95 only, use the Call restrict function (Menu 14), page 43. Select the **ALLOW M90-M95** option to allow recall (only) of locations 90 to 95 inclusive, regardless of the Memory Lock option selected. The **ALLOW M90-M95** option thus gives some override to the Memory Lock **MEM NO ACCESS** restrictions.

Activate Keyguard (Menu 16)

Keyguard can prevent accidental operation of the keys (e.g. when the phone is being carried in a pocket or bag).

When keyguard is activated no keypresses are accepted, and no keypress tones will be heard. Emergency calls can be made.

Note: When Keyguard is ON, calls may be possible to the emergency number programmed into your phone (e.g. 911, 112 or other official emergency number). However, one-key emergency dialing ('the 9 key') *does not operate*.

To activate keyguard:

- 1 Press **MENU ***, or press **MENU 1 6**.

When keyguard is active:

- If you press any key except **MENU**, you are prompted to de-activate keyguard.
- If you receive a call, press **SEND** to answer the call (any-key answering is disabled). During a call, keyguard is not active, and you can operate the phone as usual.
- If an incoming call is not answered, the **CALL** message remains on the display until any key is pressed.

- Calls to emergency numbers can be made by entering the emergency number and pressing **SEND**. When an emergency call is ended, the keyguard becomes active again.

To de-activate keyguard:

① Press **MENU ***.

When keyguard is de-activated, the message **KEYGUARD OFF** appears, and the phone then operates in the normal way.

If you attempt to activate keyguard during a call, the **KEYGUARD ACTIVE** message is shown for a while, and keyguard actually becomes active just after the call is ended.

Send DTMF (Menu 17)

You can transmit numerical information as a series of tones, using the DTMF facility (e.g. to check for messages in your answering machine). There are two ways to send DTMF tones:

1. Manual Dialing:

- 1.1 Make the call in the usual way.
- 1.2 When the call has been answered, enter the numbers. Each number is sent immediately, as a DTMF tone. The length of the tone depends on how long you press the key.

2. Automatic Dialing:

- 2.1 Make the call in the usual way.
- 2.2 When the call has been answered, use the **RCL** key to recall a stored 'DTMF' number from a memory location (e.g. for location 23, press **RCL 2 3**).
- 2.3 To send the whole number (displayed) as DTMF tones, press **MENU SEND**, or **MENU 1 7**. A series of tones, each tone representing a digit of the DTMF number, will be heard.

The special characters '+', 'p' and 'w' are used for DTMF dialing; these are available on the ***** key.

To place a pause between DTMF digits (when entering the number):

Press * * *. The 'p' character will be displayed. When the DTMF number is sent, a pause of 2.5 seconds will be inserted automatically.

To place a 'wait' character (when adding a DTMF string to a phone number, or requiring a 'wait' within a DTMF string):

It is necessary to place a 'wait' character ('w') between a phone number and the subsequent DTMF string. In addition, you may include a 'w' character at any point in a DTMF string, if required.

On reaching each 'w' character, the phone 'waits' for you to press **SEND**. On pressing **SEND**, the phone will automatically send as DTMF all the numbers or digits following the 'w' (until the next 'w', if any, is reached). You can also press **MENU SEND** or **MENU 17** at this point to send DTMF.

To enter a wait character (to precede a DTMF string, or within the string):

- ① Recall the phone number, or enter the number, as appropriate.
- ② Press * * * *. The 'w' (wait) character will be displayed, after the phone number.
- ③ Enter the DTMF number (i.e. after the 'w' character).
- ④ To enter a 'w' character within the DTMF number, press * * * *.
- ⑤ Store the whole sequence in a memory location.

To send DTMF numbers:

- ① Recall the phone number from memory using the **RCL** key.
- ② Make the call in the usual way (i.e. press **SEND**).
- ③ When the call has been answered, press **SEND** again to send the DTMF number.
- ④ If any further wait character is encountered, within the DTMF string, press **SEND** again to send the remaining part of the DTMF string.
- ⑤ To stop DTMF sending, press **CLR**.

Note that when the keypress tones are switched off, the DTMF tones are still sent, even though they cannot be heard.

To join two memory locations, in order to send a long DTMF string:

- ① Recall the phone number to the display (the location in which this is stored is called the 'first' location, in these instructions).
- ② Press * *. The '+' character will be displayed, after the phone number.
- ③ Enter the number (one or two digits) of a 'second' memory location which is to be linked to that already selected. Store the new contents in the 'first' location.
- ④ Press **** to enter a 'w' character followed by the DTMF string and store in the 'second' memory location.

To make a call using the two joined locations:

- ① Recall the 'first' location, and press **SEND**. This dials the phone number, but the dialing sequence stops on reaching the '+' character.
- ② When the call is established, press **SEND**. This will cause the phone to send automatically the DTMF sequence in the 'second' location.

NOTE: '+', 'p' and 'w' cannot be keyed while in a call; pressing * will send a DTMF tone only.

SID Screen (Menu 18) – Only available in models where this feature is available

System Identity (SID) information can be programmed into the phone by your dealer (the identities of specific networks on which the phone will operate can be programmed into each NAM).

NOTE: *This menu will appear only if SID information has been programmed into the selected NAM (use Menu 7 to select a NAM).*

You may set the 'SID Screen' function to on or off (**SID SCR N ON/OFF**). Depending on (1) the programmed information, (2) the system selected (using Menu 1), and (3) the actual availability of networks in your area, setting SID to on or off will provide the following conditions:

- **SID SCRN ON:** Your phone may be able to select the programmed (e.g low-cost) type of network. However, you may experience poor call quality if only distant networks of this type are available. If no service is available on this type of network, then the message **SID SCRN BARRED** will appear, and the **NO** part of the **NO SVC** indicator will flash. In this instance, you may be able to make emergency calls (depending on the network and the emergency number programmed into your phone) but will not be able to make any other calls, or receive any calls.
- **SID SCRN OFF:** You will always obtain the highest-quality call possible. However, the phone may roam, and the cost of calls when roaming may be greater (refer to 'System Select (Menu 1)', page 35).

To set SID to on or off:

- ① Press **MENU 1 8**. The message **LOCKCODE?** prompts you to enter your lock code.
- ② Enter your 4-digit lock code (default 1234). The number will be displayed as asterisks ********, then press **STO**. On entry of the correct code, the currently-selected option will be displayed.
- ③ Press **^** or **v** to select **SID SCRN ON** or **OFF**.
- ④ Press **STO** to confirm the setting. The phone will use this setting in a few seconds.

Message Alarm (Menu 19)

If you cannot answer your phone for any reason, the caller or switchboard can leave a message, using the Digital Messaging Service (DMS).

Menu 19 allows you to change the audible alarm that alerts you when a message is left.

There are three options:

- **NO ALARM:** The phone makes no audible sound. The message and the **MSG** indicator are displayed.
- **SHORT ALARM:** The phone beeps three times and is then silent. The message and the **MSG** indicator are displayed.
- **LONG ALARM:** The phone beeps continuously for 15 minutes. The message and the **MSG** indicator are displayed. You can stop the long alarm by pressing any key.

To select the message alarm you want:

- ① Press **MENU 1 9**.
- ② Press **^** or **v** to display the option you want.
- ③ Press **STO** to store the setting. If you have selected the long or short alarm, you will hear a sample of your chosen alarm.

Messages (Menu 20)

If you cannot answer your phone for any reason, the caller or switchboard can leave a short message, using the Digital Messaging Systems (DMS). The message can be the caller's number, a short text message, or a message to say you have a voicemail.

Using Menu 20 you can:

- Read a stored message.
- Delete a message.

For full details, see 'Receiving Short Messages' on page 17. Below is a summary of these functions.

Reading a stored message:

When a message arrives, the phone beeps, the message is displayed and the indicator appears.

If the phone beeps continuously, the 'Long Alarm' option is selected. Press any key on the keypad, to stop the alarm.

To read the message later, clear the message from the display by pressing any key except the scroll and volume keys.

When you wish to redisplay the message:

- ① Press **MENU** and enter **2 0**.
READ MESSAGES is displayed.
- ② Press **STO** to select this option.
The most recent message is displayed.
- ③ Scroll to the message you want using the **^** and **v** scroll keys.

Each message has a number, shown in the top right hand corner of the display. The most recent message is number 1.

When you reach the last stored message and try to scroll down further, **NO MORE MESSAGES** is displayed.

④ The stored message can be:

A message to say you have a voicemail.

The message you see depends on your switchboard. The message may show the number of voicemail messages you have received (and ! if the message is urgent). Alternatively it may be a call back number for your voicemail.

A short text message.

Text messages can be up to 14 characters and are predefined by the switchboard. One text message, for example, might read "Call home".

A call back number.

If you are unavailable, the caller can leave a phone number of up to 15 digits for you to call back. To dial a displayed phone number automatically, press **SEND**.

Missed calls.

If someone tries to call you but you miss the call, the phone stores the number of the person who tried to call you (if available; see 'Missed Calls Notification' on page 18).

⑤ To return to the normal display, press any key on the keypad (except the scroll and volume keys).

Deleting a message:

① Press **MENU** and enter **2 0**.

READ MESSAGES is displayed.

② Press **▼** until *DELETE MESSAGE* is displayed.

③ Press **STO**.

④ Display the message you wish to delete, using the **▲** and **▼** scroll keys.

⑤ Press **STO**.

DELETED is displayed momentarily.

The list of stored messages is re-ordered and the next message is displayed. If the list is empty, **NO MESSAGES** is displayed.

⑥ To leave the menu, press any key on the keypad, except the scroll keys and the volume keys.

Hook Flash Function and 3 Party Calls

Your cellular system may offer a 'hook flash' service. This system feature lets you accept a second call when you already have a call in progress. Your cellular system may also offer a '3 Party Call' service. This system feature lets you make a second call when you already have a call in progress. It also allows you to link the first and second call so that all 3 parties can converse.

Contact your cellular service provider for further details.

BATTERY INFORMATION

Installing/removing the battery

Refer to 'Installing the Battery' (page 8). Always switch off the phone before removing the battery.

Charging Information

Remember that you must charge the battery before you can use the phone. After its initial charging, a battery may be charged with the phone switched on or off; charging will be slightly faster with the phone switched off. You can use the phone while the battery is being recharged.



**TO ACHIEVE FULL
BATTERY CAPACITY,
NEW BATTERIES MUST
BE CHARGED
WITH THE PHONE OFF
FOR AT LEAST 24 HOURS
BEFORE INITIAL USE.**

Standby and Talk Times

Approximate standby and talk times, for fully-charged batteries:

Battery Type	Talk time	Standby time
Light NiCd 300mAh (BTH-8L)	40 minutes	9 hours
Slim NiCd 380mAh (BTH-8S)	50 minutes	10 hours
Slim NiMH 550mAh (BTH-8SM)	70 minutes	15 hours
Extended NiCd 800mAh (BTH-8H)	110 minutes	26 hours
Ultra Extended NiMH 1100mAh (BTH-8HM)	150 minutes	32 hours

NOTE:

- 1 Note that a new battery's full performance is achieved only after two or three complete charge and discharge cycles!
- 2 Standby time will be reduced by approximately 1 hour for every 6 minutes of talk time.
- 3 The battery can be charged and discharged hundreds of times but it will eventually wear out. When the operating time (talk-time and standby time) is noticeably shorter than normal, it is time to buy a new battery.
- 4 Use only batteries approved by the phone manufacturer and recharge your battery only with the chargers approved by the manufacturer. When a charger is not in use, disconnect it from the power source. Do not leave the battery connected to a charger for longer than a week, since overcharging may shorten its life. If left unused a fully charged battery will discharge itself in about a week at room temperature.
- 5 For good operation times, discharge the battery from time to time by leaving your phone switched on until it turns itself off (or by using the battery discharge facility of any approved accessory available for your phone). Do not attempt to discharge the battery by any other means.

- 6 Temperature extremes will affect the ability of your battery to charge: it may require cooling or warming first.
- 7 Use the battery only for its intended purpose.
- 8 Never use any charger or battery which is damaged or worn out.
- 9 Do not short circuit the battery. Accidental short circuiting can occur when a metallic object (coin, clip or pen) causes direct connection of the + and - terminals of the battery (metal strips on the back of the battery) for example when you carry a spare battery in your pocket or purse. Short circuiting the terminals may damage the battery or the connecting object.
- 10 Leaving the battery in hot or cold places, such as in a closed car in summer or winter conditions, will reduce the capacity and lifetime of the battery. Always try to keep the battery between 15° C and 25° C (59° F and 77° F). A phone with a hot or cold battery may temporarily not work, even when the battery is fully charged. NiMH batteries performance is particularly limited in temperatures below -10°C (14° F).
- 11 Dispose of used batteries in accordance with local regulations. Recycle! Do not dispose of batteries in a fire!

Battery Charge Indicator

The battery charge indicator on the display shows the approximate level of charge. The indicator consists of a number of bars; the more bars showing, the greater the remaining charge.



Non-charging indication

If the battery is too hot or cold the bars on the battery charge indicator will flash (and the battery will not be charged).

Low-Battery Indication

When the charge falls to approximately 5% of the battery's capacity, the message **BATTERY LOW** is displayed and the phone beeps once. This warning is repeated every five minutes if the phone is in standby mode, or every minute if in a call.

When the battery is fully discharged, the message **RECHARGE BATTERY** is displayed and the phone beeps three times. The phone then switches off automatically.

Battery Performance

Batteries will last longer and perform better if allowed to discharge fully at least once a week. You can do this by leaving the phone switched on overnight (or longer for an Extended Battery, type BTH-8H or an Ultra Extended Battery BTH-8HM), until the message **RECHARGE BATTERY** is displayed and the phone switches off. Alternatively, you can use the deep-discharge facility if this is available on your (optional) Compact Desktop Charging Stand.

Storage

When a battery is not in use, store it uncharged in a cool, dark and dry place. If left unused, a fully-charged battery will discharge itself in a few weeks at room temperature.

REFERENCE INFORMATION

LIST OF DISPLAY MESSAGES

AUTO PWR OFF

Phone is installed in a car kit with ignition sense connected. When ignition is switched off, this message appears, and the phone will switch off automatically in 5 seconds.

BATTERY LOW

Appears when battery charge is down to approximately 5% of the battery's capacity, then every 5 minutes if phone is in standby mode, or every minute if it is in a call.

CALL

Indicates that you are receiving a call, or have not answered an incoming call.

CALL IN PROGRESS

Appears if you try to change from one cellular network to another in mid call.

CODE ERROR

Indicates that you have entered an invalid lock code or security code.

DATA ACTIVE

The phone is in data mode.

EMPTY

Displayed when you try to recall information from an empty memory location.

KEYGUARD ACTIVE

The keyguard function is switched on.

KEYGUARD OFF

The keyguard function is switched off.

LOCATION FULL

The memory location to which you are trying to move information is already occupied.

LOCK CODE?

Enter your 4-digit lock code (default 1234).

LOCKED

The phone is locked.

MOVE NAME?

Displayed if you are trying to store a name which already exists, or are moving stored contents which include a name.

NAM ERROR

The NAM contains erroneous data; contact your dealer.

NAME?

Enter a name (you have selected alpha mode).

NAME TOO LONG

The name you have entered will not fit completely in the memory location and will be truncated (press **STO** again to accept the shortened name).

NEW CODE?

Enter a new lock code.

NONE PRESENT

There are no accessories connected to the phone.

NO CALL ACTIVE

Data mode cannot be used as there is no call in progress.

NO MESSAGES

Displayed when there are no messages stored.

NO MORE MESSAGES

Displayed when you have reached the oldest message in the list and there are no more to see.

NO ROOM FOR NAME

The associated number in the selected memory location is too long to allow space for a name (press **STO** again to proceed).

NO SERVICE

Appears if you try to make a call when no cellular service is available.

NO SPACE

Indicates that all memory locations are full.

NOT ALLOWED

Indicates that you have tried to store a number in an invalid memory location (e.g. 00) or call a barred number.

NOT FOUND

Indicates that the name you are trying to recall does not exist.

PRESS 'MENU' and NOW TYPE '*'

A key was pressed while keyguard was active; to switch off keyguard, press **MENU** then *****.

RECALL

Prompts you to enter the desired memory location number, when wishing to recall information from the memory.

RECHARGE BATTERY

Appears for 10 seconds before the phone switches off automatically.

REPLACE CONTENT?

Indicates that the memory location in which you are trying to store is already in use.

SECURITY?

Enter the security code (default 12345).

SILENT

Indicates that the ringing tone is switched off (i.e. '**SILENT SERVICE**' option is selected).

SID SCRN BARRED

(NO flashes, SVC steady)

No service is available due to SID function (Menu 18). To attempt to regain service, set **SID SCRN** to **OFF**.

STORE

Prompts you to enter a memory location number, when storing or deleting contents.

STORE NOT DONE

Indicates that you chose not to store new information in a memory location that was already occupied.

STORED

Indicates that storing to memory was successful.

TIMERS CLEARED

Indicates that call timers have been set to zero.

UNLOCKED

The phone has been unlocked.

USE TO VIEW

Indicates that you have entered the menu; press **^** or **v** to scroll the functions.

VOLUME 1

Indicates the earpiece volume level selected.

LIST OF TONES

Ringing Tone: This denotes an incoming call. The tone volume can be selected using Menu 6, and the ring-tone type can be selected using Menu 2.

Keypress Tone: This (single) tone denotes a valid keypress.

Re-order Tone: This (triple) tone indicates that your attempt to originate a call was unsuccessful (e.g. the network was busy) or your call has been terminated for some other reason.

Low Battery Tone: This (single) tone denotes that the remaining battery charge is low. The **BATTERY LOW** message is displayed at the same time. The tone sounds every 5 minutes if phone is in standby mode, or every minute if in a call.

Recharge Battery Tone: This (triple) tone denotes that battery charge is extremely low, and that the phone will no longer operate. **The RECHARGE BATTERY** message is displayed at the same time. The phone will switch off automatically within 10 seconds.

Charger-connected Tone: This tone (single beep) denotes that a charger has been connected; charging may start. The tone will be heard even when phone is switched off.

Auto Power-off Tone: In a car kit equipped with ignition sense, this tone denotes that the power will be switched off automatically. **The AUTO PWR OFF** message is displayed at the same time.

Error Tone: This (long) tone indicates that cellular service cannot be obtained (e.g. you are not within the service area). In a car kit equipped with ignition sense, the tone denotes that the phone will switch off automatically in 5 seconds.

Message Alarm Tone: This tone indicates that you have received a message from the switchboard or a caller who was unable to contact you. If you have selected the Long Alarm option, the phone will beep continuously for 15 minutes. If you have selected the Short Alarm option, the phone will beep three times and then will remain silent.

CARE AND MAINTENANCE

Your phone is a product of superior design and craftsmanship and should be treated with care. The suggestions below will help you to fulfill any warranty obligations and to enjoy this product for many years.

Keep the phone and all its parts and accessories out of small children's reach.

Keep the phone dry. Precipitation, humidity and liquids contain minerals that will corrode electronic circuits.

Do not use or store the phone in dusty, dirty areas. Its moving parts can be damaged.

Do not store the phone in hot areas. High temperatures can shorten the life of electronic devices, damage batteries, and warp or melt certain plastics.

Do not store the phone in cold areas. When the phone warms up (to its normal temperature), moisture can form inside the phone, which may damage electronic circuit boards.

Do not attempt to open the phone. Non-expert handling of the phone may damage it.

Do not drop, knock or shake the phone. Rough handling can break internal circuit boards.

Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the phone. Wipe it with a soft cloth slightly dampened in a mild soap-and-water solution.

If the phone or any of its accessories are not working properly, take them to your nearest qualified service facility. The personnel there will assist you, and if necessary, arrange for service.

TROUBLESHOOTING

If the power does not come on or stay on:

- make sure that the battery is installed properly.
- be sure that the contacts on the battery, and on the Desktop Stand (if used), are clean.
- watch and listen for the low battery warnings; the charge may be too low for the phone to operate.

If the power comes on, but the phone does not work:

- you may be out of the cellular service area (as denoted by the **NO SERVICE** message or **NO SVC** indicator being displayed).
- make sure the antenna is fully extended.

ACCESSORIES

A range of accessories is available for your phone. Please consult your local dealer for availability of specific items, and advice. Certain accessories are described briefly on the following pages.

IMPORTANT!

Use only accessories approved by the phone manufacturer. The use of any other types will invalidate any approval or warranty applying to the phone, and may be dangerous.

Installation of complex car equipment must be made by qualified personnel only.

When you disconnect the power cord of any accessory, grasp and pull the plug, not the cord.

Batteries

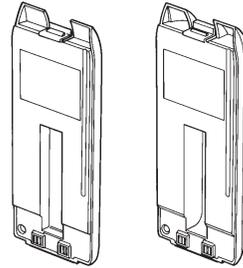
Light NiCd, 300mAh
(BTH-8L)

Slim NiCd, 380mAh
(BTH-8S).

Slim NiMH, 550mAh
(BTH-8SM).

Extended NiCd, 800mAh
(BTH-8H).

Ultra Extended NiMH,
1100mAh (BTH-8HM).



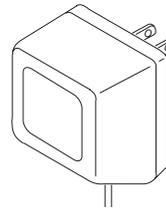
Refer to 'Battery Information', page 52, for further details.

AC Chargers

Standard Travel Charger (ACH-3U/E/P)

This light and compact AC charger is an economical charging option. For the approximate charging time for each of the different types of batteries, refer to 'Charging the Battery', page 9.

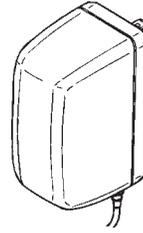
To use the Standard Travel Charger, simply plug it into a standard AC outlet, and connect the lead from the charger to the bottom of the phone.



NOTE: Do not attempt to use ACH-3U/E/P with Compact Desktop Charging Stand CHH-6.

Rapid Travel Charger (ACH-4U/E/P)

This light and compact fast AC charger is ideal for active users. For the approximate charging time for each of the different types of batteries, refer to 'Charging the Battery', page 9.



To use the Rapid Travel Charger, simply plug it into a standard AC outlet, and connect the lead from the charger to the bottom of the phone.

Desktop Stands

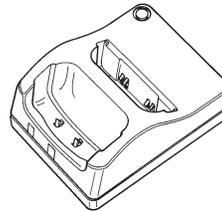
Light Desktop Stand (CHH-6L)

The Light Desktop Stand provides convenient desktop charging of the phone when used in conjunction with a charger. The Light Desktop Stand is compatible with the Standard Travel Charger (ACH-3U/E/P), Rapid Travel Charger (ACH-4U/E/P), and Rapid Cigarette Lighter Charger (LCH-2). Plug the charger connector into the socket at the rear of the Light Desktop Stand and ensure that the phone is fitted properly.



Compact Desktop Charging Stand (CHH-6)

The Compact Desktop Charging Stand allows you to charge both the phone and a spare battery. The spare battery will be charged after the phone battery has been charged.



The Compact Desktop Charging Stand must be used in conjunction with a charger; use either the Rapid Travel Charger (ACH-4U/E/P) or the Rapid Cigarette Lighter Charger (LCH-2). Plug the charger connector into the socket at the rear of the Stand, and ensure that the phone and/or spare battery is/are properly fitted.

A 'deep discharge' feature is provided. To discharge the spare battery, press the button on the Compact Desktop Charging Stand. When the battery is totally discharged, recharging starts automatically. (If you wish to stop discharging, press the button again to

start the charging immediately.) Only the spare battery can be discharged. It is recommended that the battery is fully discharged at least once a week.

The small LED indicates the charging status of the spare battery. The larger LED indicates the charging status of the phone battery.

When the spare battery is discharging the LED flashes red.

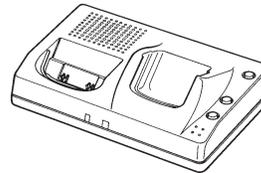
When the spare battery or phone is recharging (using fast charging), the relevant LED shows red (no flashing).

When the spare battery or phone is 80% charged and ready to use, the steady red light changes to green. If you wish, you can now continue to charge the battery or phone to full capacity (using trickle charging), but this takes a few hours more.

Handsfree Desktop Stand (CHH-7)

The Handsfree (HF) Desktop Stand provides both charging and handsfree facilities.

The HF Desktop Stand allows you to charge both the phone and a spare battery. The spare battery will be charged after the phone battery has been charged.



The HF Desktop Stand offers you a handsfree microphone and loudspeaker for office use. Place the phone in the HF Desktop Stand and use it normally. You may switch to handsfree operation, and back to normal operation, just by putting down or picking up the phone (respectively), even during your call. When the phone is in the HF Desktop Stand, the menu functions for Lights Control, Keypad Tones and Ringing Volume will be different, and will be as specified for use with the car kit.

The HF Desktop Stand (CHH-7) can only be powered by the AC Power Supply (ACS-6U). These two items are sold together as a kit; EDC-5, Handsfree Desktop Charger Kit. Plug the Power Supply into the socket at the rear of the Stand, and ensure that the phone and/or spare battery is/are fitted properly.

There are three buttons on the HF Desktop Stand:



Deep Discharge: Discharges the spare battery. (Operates in the same way as the deep-discharge button on Compact Desktop Charging Stand CHH-6.)



Last Number Redial: One-touch key for dialing the last number dialed.



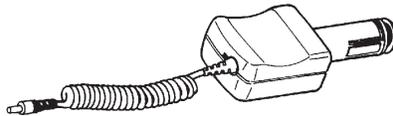
Mute: In a call, mutes the microphone; press to mute, press again to 'unmute'. (If, while the microphone is muted, the phone is removed from the HF Desktop Stand, then the microphone will be unmuted.)

Data accessories may be used in conjunction with the HF Desktop Stand. A connector at the rear of HF Desktop Stand is provided for this purpose.

Otherwise, the HF Desktop Stand acts similarly to CHH-6.

In-car accessories

Rapid Cigarette Lighter Charger (LCH-2)



You can charge the phone battery from your vehicle's cigarette lighter using the Rapid Cigarette Lighter Charger.

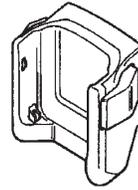
The Rapid Cigarette Lighter Charger plugs into the cigarette lighter socket in your vehicle. Avoid prolonged charging with the Rapid Cigarette Lighter Charger when the vehicle's engine is not running, otherwise you may cause an undue drain on your vehicle battery. Note that, in some vehicles, the cigarette lighter socket is not powered while the vehicle ignition is switched off.

A red light indicates charging, and a green light indicates that trickle charge has started and the phone is ready for use (check the charge on the phone display).

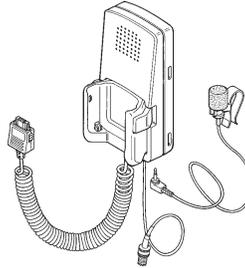
While in a call, the light will alternate between red and green. Note that the input voltage range is from 10V to 30V DC, negative grounding.

Mobile Holder (MBH-9)

Your car can be fitted with this special Mobile Holder which holds the phone in place, for example, during charging with the Rapid Cigarette Lighter Charger (LCH-2).



Compact Handsfree Car Kit (CARK-14/US/CARK-43/US)



This is a simple-to-install handsfree car kit which allows the use of the phone in a vehicle, and permits the phone battery to be fast charged. The Compact Handsfree Car Kit, which requires an optional external antenna, derives its power from the cigarette lighter socket.

The CARK-43/US includes a PCH-5 Power Cable that is hard wired directly to your car's battery.

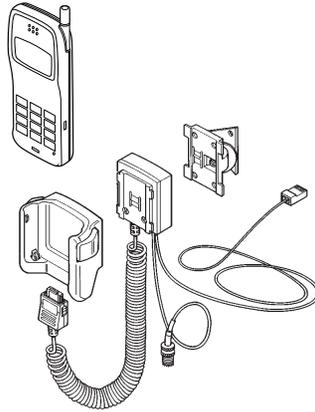
The coil cord from the main unit is plugged into the bottom of the phone, and the phone is then placed into the Mobile Holder (MBH-9). The Mobile Holder may be mounted either on the main unit or nearby (e.g. on the dashboard).

The phone will now operate normally with the following additional features:

- When the phone is placed in the Mobile Holder, it will operate automatically in handsfree mode.
- When removing the phone from the Mobile Holder, it will change from handsfree to normal handset operation.

To end a call, press the **END** key.

Complete Handsfree Car Kit (CARK-15/US)



This Complete Handsfree Car Kit, which should be installed by a qualified installer, allows handsfree operation of the phone in a vehicle, and permits the phone battery to be fast charged. The Complete Handsfree Car Kit requires an optional external antenna. No additional handset is required.

The coil cord from the Cable Junction Box (JBH-1) plugs into the bottom of the phone, and the phone is then placed in the Mobile Holder (MBH-9). The Mobile Holder should be mounted on the Cable Junction Box (JBH-1), in a convenient place.

The phone will now operate normally with the following additional features:

- When the phone is placed in the Mobile Holder, it will operate automatically in handsfree mode.
- When removing the phone from the Mobile Holder, it will change from handsfree to normal handset operation.

To end a call, press the **END** key.

When the phone is connected to the Kit, the menu functions for Lights Control, Keypad Tones and Ringing Volume will be different from those available in normal handportable use of the phone.

Volume (earpiece or handsfree speaker), keypad tones and ringing volume:

Independent levels for each of these functions will be stored for handset mode and for handsfree mode. For example, if you are in handset mode when you select any of these levels, the level will apply only when the phone is operating in handset mode. Equally, if you are in handsfree mode when you select any of these levels, the level will apply only when the phone is operating in handsfree mode.

Functions which can be available with the Complete Handsfree Car Kit:

Ignition Sense

This function (ignition-controlled switch on/off) allows the phone to be switched on and off automatically whenever the vehicle is started or switched off, respectively.

When the ignition is switched off, the message ***AUTO PWR OFF*** is displayed, a tone is heard, and the phone is switched off automatically after 5 seconds. If you press any key or if you take the phone from the Mobile Holder during this time, the phone will not be switched off.

If you turn off the ignition while you have a call in progress, the phone is switched off automatically 5 seconds after you end the call.

The Ignition Sense function is not user-selectable. It is always enabled when the ignition sense line is connected.

Car Radio Mute

This function mutes the car radio when a call is started or when the phone rings to indicate an incoming call. When the call or the ringing tone ends, the car radio is unmuted and regains its original volume level.

The Car Radio Mute function is not user-selectable. It is always enabled when the mute line is connected.

Options available with the Complete Handsfree Car Kit:

Booster Kit (BSHK-2)

This upgrades the signal output level of the phone to that of a full-powered 3W mobile.

Fax and Data Accessories

Accessory options may be available allowing fax, data facilities and electronic mail to be accessed over the air using your phone. Please ask your dealer for availability.

Data Cable (FDP-1)

This is a simple, manually-activated data adaptor which allows you to connect the phone to a data device such as a fax machine or a computer to send and receive data. For further details, refer to the user guide supplied with this accessory.

PCMCIA Modem Connector (DLH-2A)

This cable allows you to connect your phone directly to an AT&T "Keep in Touch"® PCMCIA modem card in your computer. This enables you to send and receive faxes, data, and E-Mail anywhere in a cellular network. Connect one end of the cable into the bottom of the phone, and the other end to your modem card. For further details, refer to the user documentation supplied with the modem.

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Only Nokia *Genuine* Accessories give you the kind of performance Nokia phones are famous for. Nokia *Genuine* Accessories – reliability and quality that's the best choice for your phone.

TECHNICAL INFORMATION

Dimensions:	147mm x 54mm x 17.3mm (min)
Weight:	6.9 oz (196g) with battery BTH-8S
Transmitting Power:	0.6W +2dB -4dB ERP
Operating Voltage:	Internal battery: 6.0V DC
Input to AC chargers:	Type E 220V Type U 120V Type P 220V
Input to Compact Handsfree Car Kit:	10.8 to 16V DC
Input to Complete Handsfree Car Kit:	10.8 to 16V DC
Input to Rapid Cigarette Lighter Charger:	10 to 30V DC
Frequency Band:	824 to 849 MHz (TX) 869 to 894 MHz (RX)

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NOTES