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1996
Status: ToL, JaK, JaG, SIR, JoF


DESCRIPTION OF KEYS


 Used to scroll through menu functions and memory locations. Also used to adjust the ear-piece volume during a call.


 Used to enter the menu facility.


 Used to switch between alpha and numeric modes.


 Press and hold the key to switch the phone on and off.

 Used to delete characters or clear the entire display. Also used to exit the menu functions.

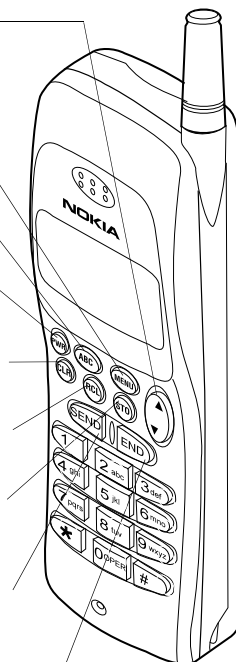
 Used to recall information from the phone memory.

 Used to store information to the phone memory. Used to confirm a setting in the menu facility.

 Used to dial a phone number and answer a call. With the display clear, this key recalls the five last phone numbers dialed.

 Used to end a phone call.

Note: When you press and hold the key, the keyguard is activated.



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Inside Front Cover

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FOR YOUR SAFETY



Read these simple guidelines before using your phone. Failure to comply with these guidelines may be dangerous or illegal.

For more detailed safety information, see Important Safety Information on page 46.



Road Safety Comes First

Don't use a hand-held phone while driving; park the vehicle first.



Switch Off In Hospitals

Switch off your phone when near medical equipment. Follow any regulations or rules in force.



Switch Off On Aircraft

Mobile phones can cause interference. Using them on aircraft is illegal.



Switch Off When Refueling

Do not use the phone at a refueling point. Do not use near fuels or chemicals.



Switch Off Near Blasting

Do not use the phone where a blasting operation is in progress. Observe restrictions, and follow any regulations or rules in force.



Use Sensibly

Use only in the normal position (to ear). Avoid unnecessary contact with the antenna when the phone is on.



Interference

All mobile phones may be subject to radio interference, which may affect the performance of the phone. Therefore, you should never rely solely upon any cellular phone for essential communications (e.g., medical emergencies).

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Qualified Service



Only qualified service personnel may install or repair cellular phone equipment. Use only approved accessories and batteries.

Making Calls



Ensure the phone is switched on and in service. Enter the phone number, including the area code, then press **SEND**. To end a call press **END**. To answer a call press **SEND**.

Emergency Calls



Ensure that the phone is switched on and in service. Press and hold **CLR** to clear the display. Enter the emergency number (e.g., 911) and press **SEND**. Give your location. Do not end the call until given permission to do so.

Regulations

FCC/Industry Canada Notice

A cellular phone may cause TV or radio interference (e.g., when using a phone in close proximity to electronic receiving equipment). The FCC/Industry Canada can require you to stop using your cellular phone if such interference cannot be eliminated. If you require assistance, please 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.

The cellular phone described in this guide is approved for use in AMPS networks.









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1. KEYS AND DISPLAY INDICATORS

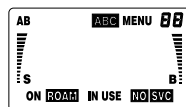
List of Keys


-  Press and hold to switch the phone on and off.
-  Used to switch between alpha and numeric modes.
-  Used to enter the menu facility. Press  and then scroll through the menu functions by using the arrow keys ( ) or press  and the menu shortcut number. (See Shortcut Method on page 25.)
-   Used to adjust the earpiece volume during a call. Press  to increase and  to decrease the volume.
- Use   to scroll through the memory locations. Press  to scroll forward and  to scroll backward.
- Press  and then scroll through the menu functions by using  . Press  to scroll forward and  to scroll backward. (Hold the key down for continuous scrolling.)
-  Press once to delete characters one at a time, or press and hold to clear the whole display. This key is also used to exit the menu functions.
-  Used to recall information from the phone directory. This key is also used to display hidden digits that run-off the display.
-  Used to store information in the phone directory. Used to confirm a setting in the menu facility.

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-  Used to dial a phone number and answer a call. With the display clear, this key recalls the five last dialed phone numbers.
-  Used to end a phone call.
Note: When you press and hold the key, the keyguard is activated.
-   Used to enter numbers and alpha characters.
-  ,
 Used for special purposes in special functions.
(For example, the keyguard can be activated/deactivated by first pressing  and then pressing .)

Display Indicators







- AB** Indicates which network is currently in use:
- A* system A only
 - B* system B only
 - AB* both systems
 - Blank* home area only
- ABC** Indicates that the phone is in ALPHA mode and letters can be entered or displayed.
- MENU** Indicates that  has been pressed and you are in the menu facility.
- BB** Indicates the number of a menu function or memory location.
- ON** Indicates that the phone is switched on.



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- ROAM** The symbol is constantly displayed when the phone is outside its home service area, and is connected to a home type system. The symbol flashes when the phone is connected to a non-home type system.
- IN USE** Indicates that a call is in progress.
- NO SVC** Indicates that cellular service is not available.
Note: The 'NO' part of the indicator flashes when cellular service of a preferred SID area is not available. (See SID Screening on page 36.)
-  Indicates the cellular signal strength of the location where you are using your phone. The higher the bar, the stronger the signal. (The bar is displayed in 5 segments.)
-  Indicates the battery charge level. The higher the bar, the more charge in the battery. When the battery is fully charged, the whole bar is displayed. (The bar is displayed in 3 segments.)

Display Editing

The display can be edited by using .

- Press  once to delete the last digit.
- Press  repeatedly to delete digits one by one.
- Press and hold  to clear the whole display.

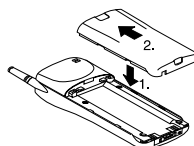
The phone can display up to 16 digits. If you enter more than this (max. 32 digits), the first digits will run-off the display and you can view them by pressing and holding . Release  to restore the last group of digits.

2. GETTING STARTED

Installing a Battery

To install the Battery:

- ① Place the battery onto the rear of the phone (1).
- ② Push the battery towards the catch until it clicks into place (2). Make sure the battery is properly installed.



To remove the Battery:

- ① Switch off the power before removing the battery.
- ② Press the locking catch at the top of the battery and slide the battery down and off the phone.

Battery Charge Indication

The vertical bar to the right of the **B** on the right side of the phone display shows the battery charge level. The higher the bar, the more power left in the battery.



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

Charging a Battery

- ① Install the battery and connect the charger to the base of the phone.
- ② Connect the charger to a standard AC wall outlet. Segments of the battery indicator bar on the right-hand side of the display will start scrolling and the charger connected tone is simultaneously emitted.

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- You can use the phone during the charging, but the charging will be reduced for the duration of the call.
- ③ After the segments of the battery indicator bar stop scrolling and the bar is entirely displayed, the battery is fully charged.
- ④ Disconnect the charger from the power outlet and phone.
- Battery charging times depend on the type of battery and charger used. Battery operation times depend greatly on how you use the batteries, as well as, on the coverage of the network and network parameters set by the cellular service provider.
- If the battery is too hot or cold, the charging may be interrupted until the battery reaches its normal operating temperature.

For more information on batteries, see Battery Information on page 41.

Signal Strength Indication

A cellular phone sends and receives radio signals. As with all radio equipment, the quality of radio reception depends on the strength of the radio signal in the area where you are operating your phone.

The strength of the cellular signal is shown by the vertical bar to the left of the **S** indicator on the left-hand side of the display. The higher the bar, the stronger the signal is at the location where you are operating your phone.





- When the **NO SVC** indicator is displayed, the phone is outside the cellular service area and calls can not be made or received.
- If the signal is poor and you are using the phone in a building, it may be beneficial to move near a window for better reception.

3. BASIC FUNCTIONS

Switching On/Off





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

As with any other radio transmitting device, avoid unnecessary contact with the antenna when the phone is switched on.

- ① Press and hold  for one second to switch the phone on.
 - The phone is ready for use when the indicators **ON**, **S** and **B** are displayed.
- ② Press and hold  for one second to switch the phone off.

IMPORTANT! Do not switch on the phone when cellular phone use is prohibited or when it may cause interference or danger.

Making a Call

- ① Enter the area code and the desired phone number.
 - If you make a mistake, press  repeatedly to delete digits one by one or press and hold  to clear the whole display.
- ② Press  to dial the phone number.
 - If the menu function PIN CALL is set to on, press  again after the tone. (See Activating PIN Calls on page 40.)

The **IN USE** indicator and the dialed phone number will appear on the display. When the phone number disappears, the call is connected.
 - The text *NO SERVICE* appears and an error tone is given if you are attempting to make a call while your phone is outside of the cellular service area.
 - The text *NOT ALLOWED* appears if you are attempting to make a restricted call. (See Restrict Calls on page 27.)

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- The text *KEYGUARD ACTIVE* appears if the keyguard feature is activated. (See Keyguard on page 14.)
- ③ End the call by pressing **END**. **Note:** If you press and hold **END**, the Keyguard is activated.

Receiving a Call

When there is an incoming call, the phone will give a ringing tone and the *CALL* message will flash on the display.

- If you have set the menu function Ringing Volume to SILENT SERVICE, the keypad and display lights will flash, the *CALL* message will flash on the display and only a short beep will be given.

You can answer a call any time, even while using the keyguard, memory or menu functions.

To answer a call:

- ① Press **SEND** or any key except **PWR** and lift the phone to your ear.
Note: If the keyguard is activated, a call can only be answered by pressing **SEND**.
- ② To end a call, press **END**.
- If you don't answer a call, the message *1 CALL MISSED* or *# CALLS MISSED* will remain on the display until you press any key (except **PWR**) to clear the display.

Adjusting the Earpiece Volume

The volume of the earpiece can be controlled by scrolling **▲ ▼** during a call when the display is clear. Press **▲** to increase and **▼** to decrease the volume level.



Note: These keys act as scrolling keys for the memory and the menu functions when not in a call.

Last Number Redial

The last five phone numbers you called or attempted to call are stored in the phone's memory location 0 (L0-L4). This stack of the five last dialed numbers remains in the phone's memory when the phone is switched off.

To redial a last dialed number:

- ① If there are any characters on the display, clear the display by pressing and holding **CLR**.
- ② Press **SEND** to display the last dialed number. Use **▲ ▼** to scroll through the last dialed numbers.

To view the associated names, if the dialed calls were made from the phone directory, first press **ABC** and then start scrolling by using **▲ ▼**. The location number is displayed in the upper right corner of the display (L0-L4).

- If the stack of the last dialed numbers is empty, the message *LOCATION EMPTY* will be displayed.
- ③ To make a call to a displayed number or name, press **SEND**.

See also Dialed Calls Memory Location on page 16.

Speed Dialing

Speed dialing is a handy way to call frequently-used phone numbers stored in the phone directory locations. (To store phone numbers, see Storing Names and Phone Numbers on page 19.)

- ① Enter the number of the memory location containing the desired phone number.

- ② Press **SEND**.

The phone recalls the phone number from the specified memory location, displays it briefly, and then dials it.

- If the memory location is empty, the message *LOCATION EMPTY* will be displayed.

1 Touch Dialing

If the menu function 1 TOUCH DIALING (Menu 9) is set to on (1 TOUCH ON), you can make a one-touch dialing call to the number (e.g., your voice-mail number) stored in phone directory location 1 by pressing and holding the **1** key.

To store the number in the phone directory location 1, see Storing Names and Phone Numbers on page 19.

9 Key Emergency Dialing

If the menu function Emergency Key 9 is set to on (EMERG. 9 ON), you can make an emergency call to the emergency number programmed into your phone by pressing and holding the **9** key.

- The phone dials the emergency number programmed into your phone and displays the message *EMERG. CALL TRY*.

Note: Official emergency numbers vary by location (e.g., 911 or another official emergency number). However, only one emergency number is programmed into your phone to be dialed automatically by one-touch emergency dialing, which may not be the proper number in all circumstances.

Note: The 9 Key Emergency Dialing does not operate when the Keyguard feature is activated. However, an emergency call can be made without deactivating the Keyguard by entering the whole emergency number programmed into your phone and then pressing **SEND**.

To make an emergency call when the keyguard is activated:

- ① Enter the emergency number programmed into your phone and press **SEND**.
- The emergency number is displayed only after you have entered the last digit of the number.
 - The phone dials the emergency number programmed into your phone and displays the message *EMERG. CALL TRY*.

Keyguard

The phone's keypad may be locked to prevent unintended key presses from being made when the phone is in a pocket or a bag.

No security code is required to activate or deactivate the keyguard feature.

To activate the keyguard:

- ① Press **MENU** and then *****. You can also activate the keyguard by pressing and holding **END** (e.g., when ending a call).

The message *KEYGUARD ACTIVE* remains on the display until the keyguard is deactivated.

When you press a key, the phone prompts you to press the **MENU** key.

To deactivate the keyguard:

- ① Press **MENU** (at *PRESS MENU* prompt) and ***** (at *NOW PRESS ** prompt).

The message *KEYGUARD OFF* is briefly displayed indicating that the keyguard has now been deactivated.

When the keyguard is activated:

- To answer a call, press **SEND**. During the call, the keypad remains unlocked and the phone can be operated in the normal way.
- To end a call, press **END**. After the call is ended, the keyguard automatically becomes active again.
- The phone can not be switched off before the keyguard is deactivated.

Note: When the keyguard is activated, calls may be possible to the emergency number programmed into your phone (e.g., 911 or another official emergency number). However, one-touch emergency dialing ('the 9 key') does not operate.

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Calling Card Call

When making a long distance call, the call charges can be directed to a selected long distance phone company if the card number is sent to the network during the call setup.

Before making an automatic calling card call, you have to activate one of the calling card options from the menu function CALLING CARD.

To make an automatic calling card call:

- ① Enter the area code and phone number and press and hold **SEND** for more than one second.
 - The message *CARD CALL* remains on the display until the access number has been sent to the network. The phone asks you to wait for a tone (*WAIT FOR PROMPT*).
- ② After the tone, press **SEND**.
 - The phone now sends the phone number to the network and the message *CARD CALL* remains on the display until the transmission is completed. The phone prompts you to wait for another tone.
- ③ After the tone, press **SEND** once again.
 - The phone now sends the card number to the network and the message *CARD CALL* remains on the display until the transmission is completed and the phone returns to the normal call mode.

Note: This procedure may not apply to all calling card options programmed into your phone. Please contact your local service provider or the appropriate long distance phone company for further information.

4. USING PHONE DIRECTORY

Standard Memory Locations

Your phone has 40 alpha-numeric phone directory locations. Memory locations 1-20 (short) can hold phone numbers of up to 16 digits and names of up to 16 characters. Memory locations 21-40 (long) can hold numbers of up to 32 digits and names of up to 16 characters.

Note: If you try to store a digit string greater than 16 characters in a short memory location (locations 1-20), the message *DIGITS MAX = 16* is briefly displayed and the phone exits the store function. The string you tried to store will reappear on the display and you can store it in a long memory location.

Dialed Calls Memory Location

Memory location 0 is reserved for the stack of the five last dialed numbers. The phone automatically stores the five last dialed numbers in the memory location 0 (L0-L4). Whenever a new call is made, the last dialed number is stored in the location L0, and the other numbers in the stack are moved forward by one location so that the number in the location L4 is overwritten after the sixth call is dialed.

- A phone number cannot be stored twice in the stack. When dialing a number that already exists in the stack, the dialed number is moved to the top of the stack (i.e., it is stored in the location L0).

① To view the stack of the five last dialed numbers press **SEND** (with the display clear) once. Use **▲** **▼** to scroll the last dialed numbers.

To view the associated names, if the dialed calls were made from the phone directory, first press **ABC** and then start scrolling by using **▲** **▼**. The dialed calls location number is displayed in the upper right corner of the display.

- If the stack is empty, the message *LOCATION EMPTY* is displayed.

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- ② To make a call to the displayed number or name, press **SEND**.

To erase the stack, erase the memory location 0 (L0-L4) as described in Erasing a Memory Location on page 24.

Notepad Memory Location

In addition to the standard phone directory locations, your phone has one short term memory location, where a phone number can temporarily be stored, e.g., during a call. This location is automatically cleared when the phone is switched off.

To store a number in the notepad memory:

- ① Press **STO**.
- The phone prompts you to enter the name to be stored (*NAME?*).
- ② Enter the name (as described in Entering Names on page 18) and press **STO** (or just press **STO** if you do not want to store a name).
- The phone prompts you to enter the phone number (*NUMBER?*).
- ③ Enter the area code and the phone number and press **STO**.
- OR instead of the steps 1 to 3 above, enter the area code and the phone number and name to be stored and then press **STO**.
- The phone suggests the first empty memory location if available (*STORE TO 5?*).
- ④ Press **#** and then **STO**.

The phone will store the number (and name) in the notepad memory location. Any number previously stored in the notepad memory will be overwritten.

To recall the number from notepad memory:

- ① Press **RCU** first, then enter **#** as the location number and confirm by pressing **STO** (or press **#** first and then **RCU**).
 - If the location is empty, the message *LOCATION EMPTY* will be displayed.
- ② To call the number, press **SEND**.

To store the number (and name) from the notepad memory location in a standard memory location, recall it, then store it as described in Storing Names and Phone Numbers on page 19.

Entering Names

- ① If in numeric entry mode, press **ABC** to select the alpha mode. The **ABC** indicator will appear on the display to indicate that letters can now be entered.
- 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 so on. If you miss the letter you want, just repress the key until the desired character reappears.
 - If you want the same letter twice, either select it as above, wait until the cursor appears and select it again, or select the letter and press ***** and then select it again immediately.
 - To enter a space between the letters, press **#**.
 - To enter a hyphen or another special character (-, &, ., :) between the letters, press **1** until the desired character appears.
 - To correct a mistake, press **CLR** to erase characters one by one, or press and hold **CLR** to clear the whole display. **Note:** Clearing the whole display automatically restores numeric entry mode.
- ③ To exit alpha mode, press **ABC**.

You can toggle between name and number entry mode by pressing **ABC**.

Storing Names and Phone Numbers

To use the menu method:

- ① Press **STO**.
The phone prompts you to enter the name to be stored (*NAME?*). The **ABC** indicator on the top of the display indicates the phone is in alpha mode.
- ② Enter the name as described above and press **STO**, or just press **STO**.
The phone prompts you to enter the phone number to be stored (*NUMBER ?*).
- ③ Enter the area code and phone number and press **STO**.
 - OR instead of steps 1 to 3 above, enter the area code and the phone number (and name) to be stored, and then press **STO**.
- ④ a) If the name you entered is not in use, the phone suggests the first empty memory location if available (e.g., *STORE TO 5?*). If you want to store the information in the suggested memory location, press **STO**.
- ④ b) If the name you entered is already in use, the phone displays the number of the memory location where it is stored and prompts you to overwrite the memory location (*REPLACE NAME?*). If you want to replace the information previously stored to the memory location, press **STO**.
- ④ c) If there is no empty memory location available, the phone prompts you to enter the memory location where you want to store the information (*STORE TO?*). Enter a location number and press **STO**. The phone now prompts you to replace the contents of the selected memory location (*REPLACE CONTENT?*). If you want to replace the information, press **STO**.
The message *STORED* will be displayed confirming that the information has been stored.

- ④ d) If both the phone number and name you entered are already in the phone's memory, the message *ALREADY STORED* is briefly displayed and then the phone suggests the first empty memory location if available (e.g., *MOVE TO 5?*), or prompts you to enter a memory location number if there is no empty memory location (*MOVE TO?*). Press **STO**, or first enter the memory location number and then press **STO**. If the location you entered is already in use, the phone prompts you to overwrite the contents of the location (*REPLACE CONTENT?*). If you want to replace the information, press **STO**.

The message *MOVED* will be displayed confirming that the information has been moved to the memory location displayed in the upper right corner of the display.

- When the *STORE*, *REPLACE* or *MOVE* prompt is displayed and you do not want to continue, either press **CLR** or wait until the message *NOT STORED* (at the store and replace prompts) or *NOT MOVED* (at the move prompt) appears. The phone exits the store function, and the information you tried to store will then reappear on the display, and you can store it in the memory as described above, or you can clear the display by pressing and holding **CLR**.

To use the quick save method:

- ① Enter the area code and phone number and name.
- ② Press and hold **STO** until *STORED* appears.
The message *STORED* confirms that the information is stored in the first empty memory location displayed in the upper right corner of the display.
- If there is no empty location the message *NO SPACE* is displayed and the information you tried to store will reappear on the display, and you can store it as described below, or you can clear the display by pressing and holding **CLR**.

Memory Scrolling

- ① Use ▲ ▼ to scroll through the memory locations in use. Press ▼ to scroll forward and ▲ to scroll backward.
To scroll the stored names, first press ABC to switch to the alpha mode and then begin scrolling by using ▲ ▼.
- In the numeric entry mode, the memory locations are scrolled in memory location sequence. In the alpha mode, the names are scrolled in alphabetical order.
- ② Press SEND to make a call when the desired name or number is displayed.

Recalling Names & Phone Numbers

To recall information by name:

- ① Press ABC and then RCL.
The phone prompts you to enter the name to be recalled (NAME?).
- ② Enter the name or first letter(s) of the name you want to recall and press RCL, or start scrolling by using ▲ ▼.
The name, or if you entered the first letter(s) only, the names beginning with the first letter are displayed. To display an associated phone number, press ABC. You can view other stored names listed under the first letter by using ▲ ▼.
- If no matching name is found, the message *NAME NOT FOUND* will be briefly displayed, and the entered characters will reappear on the display if you pressed RCL.
- If you started scrolling without pressing RCL, the message *NAME NOT FOUND* will be briefly displayed, and the list of names beginning with the first character searched, will be displayed.
- ③ Call the displayed name or phone number by pressing SEND.

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To begin scrolling from an alpha character:

Press **ABC** first and then enter the first letter(s) or name and start scrolling the names in alphabetical order from the entered letter forward by using **▼**.

- If no name beginning with the entered letter is found, the message *NAME NOT FOUND* will be briefly displayed, and the phone then displays the next name in alphabetical order.

To recall information by location number:

① Press **RCL**. The phone prompts you to enter the location to be recalled (*LOCATION?*).

② Enter the desired location number and press **RCL**, or start scrolling by using **▲ ▼**.

- or instead of the steps 1 to 2 above, enter the location number and then press **RCL**.

The phone number stored in the location will be displayed. To see the associated name, if available, press **ABC**. Use **▲ ▼** to view other memory locations in use.

- If the selected memory location is empty, the message *LOCATION EMPTY* will be briefly displayed, and the phone exits the function if you pressed **RCL**.
- If you started scrolling without pressing **RCL**, the message *LOCATION EMPTY* will be briefly displayed, and the next memory location in use will then be displayed.

③ Call the displayed number by pressing **SEND**.

To begin scrolling from a memory location:

Enter a location number and start scrolling forward or backward from the entered location number by using **▲ ▼**.

- If the location you entered is empty, the message *LOCATION EMPTY* will be briefly displayed, and the phone then displays the next memory location in use.

Moving Names and Phone Numbers

To move the contents of a memory location:

- ① Recall the phone number and name to be moved as described in Recalling Names and Phone Numbers on page 21.
 - ② Press **STO**.
The message *ALREADY STORED* is briefly displayed and then the phone suggests the first empty memory location if available (e.g., *MOVE TO 5?*) or prompts you to enter the memory location where you want to move the information to, if there is not a free memory location (*MOVE TO?*).
 - ③ Press **STO**, or first enter a specific memory location number and then press **STO**.
If the location you entered is already in use, the phone prompts you to overwrite the contents of the location (*REPLACE CONTENT?*). If you want to replace the information, press **STO**.
The message *MOVED* will be displayed confirming that the information has been moved to the memory location displayed in the upper right corner of the display.
- When the *MOVE* or *REPLACE* prompt is displayed and you do not want to continue, either press **CLR** or wait until the message *NOT MOVED* appears. The phone exits the move function, and the information you tried to move will then reappear on the display. You can reattempt to move it as described above, or you can clear the display by pressing and holding **CLR**.

To use the quick move method:

- ① Recall the phone number and name to be moved.
- ② Press and hold **STO** for one second.
The message *MOVED* will be displayed confirming that the information has been moved to the first empty memory location displayed in the upper right corner of the display.
 - If there is no empty location, the message *NO SPACE* is displayed, and the information you tried to move will reappear on the display. You can reattempt to move it as described below, or you can clear the display by pressing and holding **CLR**.

Erasing a Memory Location

You can erase a memory location by storing empty entries in it.

- ① Press and hold **CLR** to clear the display.
- ② Press **STO** to enter the store function.
- ③ Press **STO** at *NAME?* and *NUMBER?* prompts.
- ④ Enter the number of the memory location you want to delete at the store prompt, and press **STO**. The message *REPLACE CONTENT?* appears.
- ⑤ Press **STO** to confirm the deletion. The message *STORED* and the memory location number are briefly displayed confirming that the memory location has been cleared.
 - If you do not press **STO** within 8 seconds, or if you press **CLR**, the message *NOT STORED* is briefly displayed, and the phone exits the function.

5. USING MENU FACILITY

The phone offers you a set of functions arranged in menus accessible through the menu facility. Each menu allows you to review and alter the settings of a specific menu function.

The menu functions can be accessed by scrolling through the menu facility (Menu Method) or by using the Shortcut Method.

Menu Method

- ① Press **MENU** to enter the menu facility, and use **▲** **▼** to scroll through the list of functions until you find the one you want. Press **▼** to scroll forward and **▲** to scroll backward.
- ② Press **STO** to access the desired menu option.
- ③ Use **▲** **▼** to scroll through the options of the function. The current setting is always displayed first.
- ④ Press **STO** to select the displayed option, or use **CLR** to exit the menu facility without changing the settings.

Shortcut Method











The menu functions are numbered, and the functions 1 to 9 can be accessed via their shortcut number.

Note: Menu functions 10 to 13 cannot be accessed by this shortcut method.

- ① Press **MENU**, and enter the number of the menu function you want to access. (See List of Menu Functions on page 26.)
- ② Use **▲** **▼** to scroll through the settings of the function. The current setting is always displayed first.
- ③ Press **STO** to select the displayed setting, or use **CLR** to exit the menu facility without changing the settings.

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List of Menu Functions

Menu function	Shortcut	Description
RESTRICT CALLS		to select the call restriction level
SYSTEM SELECT		to select roaming option
CALL TIMERS		to view and reset call timers
LIGHTS		to set the display lights on/off
KEYPAD TONES		to switch the keypad tones on/off
RINGING VOLUME		to select the ringing tone volume
RINGING TYPE		to select the ringing tone type
EMERGENCY KEY 9		to set 9 Key Emerg. dialing on/off
1 TOUCH DIALING		to set the 1 Key one-touch dialing on/off
NAM SELECT		to view and select your cellular number
CALLING CARD		to select and activate a calling card option
CHANGE LOCKCODE		to change the four-digit lock code
SID SCREEN		to set the SID screening on/off

There is an additional feature which is operated via the following menu shortcut:

KEYGUARD		to activate/deactivate the keyguard
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Descriptions of Menu Functions

The following pages explain how the menu functions can be accessed and operated.

Restrict Calls (Menu 1)

This menu function allows you to restrict certain types of calls. Your four-digit lock code is required to change the settings of this function.

ALLOW ALL	No restrictions to incoming or outgoing calls.
INCOMING ONLY	Incoming calls only, except for calls from the lock-free location (40) and emergency calls.
MEMORY ONLY	Only calls from the phone directory locations and emergency calls.

To set the call restriction option:

- ① Press **MENU** and scroll to the menu function **RESTRICT CALLS** by using **▲ ▼** and press **STO**, or press **MENU 1** as a shortcut access method.
The phone displays its current restriction level.
- ② Scroll the options and confirm your choice by pressing **STO**.
The phone prompts for your four-digit lock code (**LOCKCODE?**).
- ③ Enter your lock code and press **STO**.
 - If you made a mistake in entering the lock code, the message **CODE ERROR** is displayed, and the phone exits the menu function.

Note: When calls are restricted, calls may be possible to the emergency number programmed into your phone (e.g., 911 or another official emergency number) including calls by one-touch emergency dialing.

Note: No new entries can be stored in the phone directory locations (e.g., location 40) when the phone is set to **INCOMING ONLY** or **MEMORY ONLY**.

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System Select (Menu 2)

Note: When the menu function SID SCREEN has been set to SID SCRN ON and you try to access this menu function, the message *NOT ALLOWED* is briefly displayed and the phone exits the menu facility.

This menu function allows you to select a roaming option. Roaming is a feature which is relevant in areas where there are two cellular service providers operating in your area. Your phone is designed to work with either or both service provider networks.

Roaming, when available, allows you to register your phone on more than one network. This system priority feature allows you to program your phone for optimum operation when within your home service area or when outside your home service area.

Contact your cellular service provider for information about roaming agreements they have with other cellular service providers.

In some areas roaming phones are automatically recognized by the cellular system's computer. In other areas, you must contact the service provider before it can recognize your phone. The operator needs to know your phone number, your phone's ESN (electronic serial number), and how you plan to pay for your calls. There is normally an additional charge for roaming calls.

Note: The ESN of your phone is located under the battery of the phone. (However, the ESN of your phone can normally be read over the air by the roaming cellular service providers when you call them to register your roaming presence on their cellular network.

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To select the roaming mode:

- ① Press **MENU** and scroll to the menu function **SYSTEM SELECT** by using **▲ ▼** and press **STO**, or press **MENU** **2abc** as a shortcut access method.

The phone displays its current roaming mode.

- ② Scroll through the following four roaming options by using **▲ ▼**:

HOME TYPE B*	The phone uses only its home system(B).
NON-HOME TYPE A*	The phone uses only the non-home type system (A).
HOME AREA	The phone uses only its home area and home system.
BOTH SYSTEMS	The phone uses both systems (A and B). The phone uses its home system when possible and the non-home type system when service is not available in its home system.

* When selected NAM is programmed to the system B cellular provider.

- ③ Press **STO** to select the displayed setting, or press **CLR** to exit the menu facility.

Note: The home type depends on the programming of the currently selected NAM. The 'A' and 'B' are reversed when the phone is programmed to the A system cellular provider. The phone will automatically display the selected system type (A or B) in the upper left corner of the display.

Call Timers (Menu 3)

This menu function allows you to check the approximate duration of the calls you have made and to reset the call duration timers.

- ① Press **MENU** and scroll to the menu function **CALL TIMERS** by using **▲ ▼** and press **STO**, or press **MENU** **3def** as a shortcut access method.

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- ② Scroll through the following options by using ▲ and confirm your choice by pressing STO:

LAST : .. Shows the duration of the last call in minutes and seconds.

TOTAL 1 : .. Shows the duration of all calls you have made for your primary number (not including the call in progress).

TOTAL 2 : .. Shows the duration of all calls you have made for your optional second phone number. (See NAM SELECT on page 34.)

LIFE : .. Shows the duration of all calls you have made for either of your numbers.

CLEAR TIMERS Resets all the resettable call duration timers to zero. **Note:** The LIFE timer for all calls cannot be reset.

- ③ If you select the option CLEAR TIMERS, the phone prompts you to enter your four-digit lock code (*LOCKCODE?*). Enter your lock code and press STO.

The message *TIMERS CLEARED* is briefly displayed confirming that the resettable call duration timers have been reset to zero.

Note: The reset operation cannot be undone.

Note: The actual time invoiced for calls by your service provider may vary depending upon network features, rounding-off for billing, and so forth.

Lights (Menu 4)

The keypad and display of the phone are fitted with back lighting to make them easy to read. This menu function allows you to set the phone's lights on or off.

To set the lights on or off:

- ① Press MENU and scroll to the menu function LIGHTS by using ▲ ▼ and press STO, or press MENU 4ghi as a shortcut access method.

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- ② Scroll through the options by using ▲ ▼ (LIGHTS ON, LIGHTS OFF) and confirm your choice by pressing **STO**.

When set to LIGHTS ON:

- and the phone is used as a handportable phone or connected to a charger, the lights go off 15 seconds after you have pressed a key or an incoming call alert has been received.
- and the phone is connected to a handsfree car kit, the lights remain on continuously.

When set to LIGHTS OFF:

- and the phone is used as a handportable phone or connected to a charger, the lights remain off continuously.
- and the phone is connected to a handsfree car kit, the lights remain on for 15 seconds after you have pressed a key or an incoming call alert has been received.

Keypad Tones (Menu 5)

A short tone is sounded each time you press a key of your phone. This menu function allows you to set the keypad tones on or off.

- ① Press **MENU** and scroll to the menu function KEYPAD TONES by using ▲ ▼ and press **STO**, or press **MENU** **5 jkl** as a shortcut access method.
- ② Scroll through the options (KEYTONES ON or KEYTONES OFF) by using ▲ ▼ and confirm your choice by pressing **STO**.

Note: DTMF tones can be sent even when the keypad tones are switched off.

Note: Keypad tones are also set off when the option SILENT SERVICE is activated under the menu function Ringing Volume.

Ringing Volume (Menu 6)

This menu function allows you to select and demonstrate the ringing volume level, or to switch it off.

- ① Press **MENU** and scroll to the menu function **RINGING VOLUME** by using **▲ ▼** and press **STO**, or press **MENU** **6mno** as a shortcut access method.
- ② Scroll through the options (RINGING HIGH, RINGING LOW and SILENT SERVICE) by using **▲ ▼**.
 - A sample tone is automatically played to demonstrate each displayed option.
- ③ To select the displayed option, press **STO**.
 - If you select the option SILENT SERVICE, the message *SILENT* is displayed when there is no call in progress and when you are not using other functions of the phone. This is to remind you that the ringing tone is set off.

Note: All other tones of the phone, except for the charger connected tone, are also switched off.

Ringing Type (Menu 7)

This menu function allows you to select and demonstrate any of the five ringing tone types of your phone.

- ① Press **MENU** and scroll to the menu function **RINGING TYPE** by using **▲ ▼** and press **STO**, or **MENU** **7pqrs** as a shortcut access method.
- ② Scroll through the options (RINGING TYPE 1 to 5) by using **▲ ▼**.
 - A sample tone is automatically played to demonstrate each displayed option.
- ③ To select the displayed option, press **STO**.

Emergency Key 9 (Menu 8)

This menu function allows you to set the **9wxyz** key one-touch emergency dialing on or off. The default setting for the feature is EMERG. 9 OFF.

EMERG. 9 ON Enables one-touch emergency dialing to the emergency number programmed into your phone by pressing and holding the **9wxyz** key.

EMERG. 9 OFF Disables one-touch emergency dialing for the **9wxyz** key.

See also 9 Key Emergency Dialing on page 13.

To set the Emergency Key 9 on or off:

- ① Press **MENU** and scroll to the menu function **EMERGENCY KEY 9** by using **▲ ▼** and press **STO**, or press **MENU 8tuv** as a shortcut access method.
- ② Scroll through the options (**EMERG. 9 ON** or **EMERG. 9 OFF**) by using **▲ ▼** and confirm your choice by pressing **STO**.

Note: The one-touch emergency dialing operates when calls are restricted, but does not operate when the Keyguard is activated.

1 Touch Dialing (Menu 9)

This menu function allows you to set the **1** key one-touch dialing on or off.

1 TOUCH ON Enables one-touch dialing to the number stored in the phone directory location 1 by pressing and holding the **1** key.

1 TOUCH OFF Disables one-touch dialing for the **1** key.

See also section 1 Touch Dialing on page 13.

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To set the 1 Touch Dialing on or off:

- ① Press **MENU** and scroll to the menu function 1 TOUCH DIALING by using **▲ ▼** and press **STO**, or press **MENU** **9wxyz** as a shortcut access method.
- ② Scroll through the options (1 TOUCH ON, 1 TOUCH OFF) by using **▲ ▼** and confirm your choice by pressing **STO**.

NAM Select

Your phone can have two phone numbers. This menu function allows you to select the network to be used for making or receiving calls, if you are a subscriber to two cellular networks. Each number is stored in a NAM (Number Assignment Module).

Note: The phone cannot operate on both networks at the same time, and you cannot change the network number during a call.

- If you try to change the network number during a call, the message *CALL IN PROGRESS* is displayed, and the phone exits the menu facility.

Note: If your phone is set to your first number, you can only receive calls to that number. You may be able to forward calls from your second number to your first number so as not to miss any calls, if this service is provided by your network operator. For more information, please contact your cellular service provider.

To change the network number:

- ① Press **MENU** and scroll to the menu function NAM SELECT by using **▲ ▼** and press **STO**.
The number for the network currently in use is displayed first.
- ② Scroll the two numbers, if available, by using **▲ ▼** and confirm your choice by pressing **STO**.
Note: If only one NAM is programmed, only that phone number can be selected from this menu.

Calling Card

This menu function allows you to activate a calling card option for automatic calling card calls. You can select the calling card option among three calling card companies programmed into your phone, or you can select the NO CARD option. For making an automatic calling card call, see Calling Card Call on page 15.

To select the card call option:

- ① Press **MENU** and scroll to the menu function **CALLING CARD** by using **▲ ▼** and press **STO**.
The phone asks for your lock code (**LOCKCODE?**).
- ② Enter your four-digit lock code and press **STO**.
After you have entered the correct code, the phone displays the name of the previously selected card, or the message **NO CARD** will be displayed.
 - If you enter an incorrect lock code, the message **CODE ERROR** is displayed and the phone exits the menu facility.
- ③ Scroll through the options by using **▲ ▼** and confirm your choice by pressing **STO**.
 - If you select the **NO CARD** option, the previously stored calling card data will be erased and the phone exits the menu facility.
 - If you select one of the card options, the phone prompts for the network access number, if required (**ACCESS NUMBER?**).
- ④ Enter the access number and press **STO**.
The phone now prompts for the card number (**CARD ID CODE?**).
- ⑤ Enter the card number and press **STO**.
The message **STORED** is briefly displayed confirming that the selected card has been activated and the previously stored calling card data erased.

Note: To exit the menu facility without changing the calling card settings, press and hold **CLR** before pressing **STO** in step 5.

Changing the Lock Code

This function allows you to change the four-digit lock code of your phone.

This code is needed to change the settings of the menu functions SID Screen, Calling Card and Call Restricts, as well as, to reset the Call Timers.

- ① Press **MENU** and scroll to the menu function **CHANGE LOCKCODE** by using **▲ ▼** and press **STO**.

The phone prompts for your current four-digit lock code (**LOCKCODE?**).

- ② Enter your lock code and press **STO**.
 - If you entered an incorrect lock code, the message **CODE ERROR** is displayed and the phone exits the menu facility.

The phone asks for a new lock code (**NEW CODE?**).

- ③ Enter the new lock code and press **STO**.

Note: The code may contain numeric digits only.

The phone prompts you to confirm the new lock code (**CONFIRM**).

- ④ Reenter the new lock code and press **STO**.

The message **STORED** is briefly displayed confirming that the new lock code has been set.

SID Screening

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

This function allows you to set the SID screening on or off (**SID SCRΝ ON/SID SCRΝ OFF**) if SID information has been programmed into your phone.

Depending on the programmed information, the system selected (Menu 2), and the actual network availability in the area you are using the phone, the setting of this menu function to on or off provides the following conditions:

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SID SCRN ON	Your phone may be able to select a preferred SID area. If no service is available on this type of area, the NO part of the NO SVC indicator will flash and only emergency calls to the emergency number programmed into your phone may be possible.
SID SCRN OFF	SID screening is disabled and your phone selects the network as set in the menu function SYSTEM SELECT. (See System Select on page 28.)

To set SID screening on or off:

- ① Press **MENU** and scroll to the menu function SID SCREEN by using **▲ ▼** and press **STO**.
 - **Note:** If you try to access this menu function and no SID information has been programmed into your phone, the message *NOT ALLOWED* is briefly displayed and the phone exits the menu facility.
- ② Scroll through the options (SID SCRN ON, SID SCRN OFF) by using **▲ ▼** and confirm your choice by pressing **STO**.

The phone prompts for your four-digit lock code (*LOCKCODE?*).
- ③ Enter your lock code and press **STO**.

The message *STORED* is briefly displayed confirming the selection.

 - If you entered an incorrect lock code the message *CODE ERROR* is briefly displayed and the phone exits the menu facility.

Note: When the phone is set to SID SCRN ON and when operating within a non-preferred SID area, only calls to the emergency number programmed into your phone (e.g., 911 or another official emergency number) may be possible.

6. ADDITIONAL FEATURES

Sending DTMF Tones

The Dual Tone Multi Frequency (DTMF) feature allows you to send touch tones which can be used to control equipment such as bank-by-phone or voice-mail by using your cellular phone.

There are two alternative ways to send DTMF tones:

1. Manual dialing

- ① Make a call to the desired number in the usual way (e.g. to your bank's computer phone number).
- ② Enter the digits to be sent as DTMF tones (e.g., your bank account number and password).

2. Automatic dialing

You can send a string of digits as DTMF tones by storing the string in a phone directory location and then recalling it for automatic DTMF transmission.

- When storing the string, insert a wait character between the access phone number and DTMF number. (See Adding a Wait Character on page 39.)
- ① Recall the phone directory location containing the phone number and DTMF string to be sent.
 - ② Press **SEND** to dial the phone number.
 - ③ After the phone number has disappeared from the display, wait for the tone and press **SEND**.
 - If the keypad tones have been set off, the DTMF tones will be sent, but you will not hear them.
 - ④ To end the call, press **END** after the DTMF transmission is completed and the phone has returned to the normal call mode.

Note: If you recall a DTMF number from the memory during a call, do not recall the number by first entering the location number and then pressing **COL** or **▲ ▼**, because then the location number will be sent as DTMF tones.

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Adding a Pause Character

If the device to which you are sending the DTMF string, needs to receive the number slowly or after a pause, insert one or more pause characters of 2.5 seconds between the required DTMF digits.

To create a pause character 'p':

- ① Press **MENU** first and then **#**. (E.g., if you want to send your password as DTMF tones with a 'p' character between each digit, the string should be sent as 1p2p3p4.)

Adding a Wait Character

For automatic dialing, you can store the DTMF string within the same memory location as the access phone number by storing a wait character between the phone number and the DTMF number.

To create a wait character 'w':

- ① Press **MENU** first and then **#** twice.

To send a DTMF sequence containing a wait character, see Automatic Dialing on page 38.

Call Waiting

Your cellular service provider may offer a call waiting option. This network feature allows you to make or answer a second call while you already have a call in progress.

To make a call while you have a call in progress:

- ① Enter the phone number or recall the number from the memory and press **SEND**.

To answer an incoming call while you have a call in progress:

- ① Press **SEND** at an incoming call alert.













Note: The Call Waiting network feature normally needs to be specifically subscribed to and may not be available in all cellular service provider networks. Contact your local cellular service provider for more information.

Activating PIN Calls


Note: This feature may not be available on all networks, check with your local service providers.

This function allows you to activate or deactivate a PIN call. When this function is set to on, a PIN code is requested at call setup.













To activate the PIN call:

- ① Enter the control code    
      (spells   PIN CALL #).


The phone asks for your four-digit *PIN CODE?*.

- ② Enter your PIN code and press .
The message *PIN CALL ON* is briefly displayed confirming the PIN call activation.



To deactivate the PIN call:

- ① Enter the control code    
      (spells   PIN CALL #).

The phone asks for your four-digit *PIN CODE?*.

- ② Press  without entering the PIN code.
The message *PIN CALL OFF* is briefly displayed confirming the PIN call deactivation.

To make a call when the PIN call is set to on:

- ① Make the call in the usual way.
The message *PIN CALL* is displayed. The phone asks you to wait for a tone (*WAIT FOR A PROMPT*).
- ② After the tone, press .
 - The message *SENDING PIN* is displayed. If the message remains on the display, press  to resend the PIN code.

Note: When the phone is set to PIN CALL ON, an emergency call to the emergency number programmed into your phone (e.g., 911 or another official emergency number) will be dialed as a normal call without the PIN code request.

7. BATTERY INFORMATION

Battery Options

The following battery options are available for your phone. Consult your local dealer for more information.

The battery charging times depend on the remaining battery charge and the type of battery and charger used.

Charging Times:

	ACH-8U	LCH-6
Slim Battery BBT-6L 470 mAh NiMH	2 h 30 min.	45 min.
Extended Battery BBT-6S 950 mAh NiCd	4 h 30 min.	1 h 30 min.
Ultra Extended Battery 1700 mAh NiMH	9 h	3 h

Note: The above charging times are approximate.

Talk and Standby Times:

	TALK	STANDBY
Slim Battery BBT-6L 470 mAh NiMH	1 h	13 h
Extended Battery BBT-6S 950 mAh NiCd	2 h	26 h
Ultra Extended Battery 1700 mAh NiMH	3 h 20 min.	47 h

Installing and Charging a Battery

For installing, removing and charging the battery, see Getting Started on page 8.

Discharging a Battery

A battery lasts longer and performs better if allowed to discharge fully from time to time.

You can do this by leaving your phone switched on until the phone automatically turns itself off after the battery has been completely discharged. Alternatively, you may use the battery discharge facility of any approved accessory available for your phone.

Note: Do not attempt to discharge the battery by any other means.

Recharging a battery

When the battery charge is low and only a few minutes of talk time remain, a warning tone will be given and the message *BATTERY LOW* will be repeated at regular intervals on the display.

When the battery charge level is too low for the phone to operate, the *RECHARGE BATTERY* message will be displayed and a warning tone will be given before the phone automatically switches itself off (after about 10 seconds).

Note: If SILENT SERVICE has been selected, only the display messages appear. (See Ringing Volume on page 32.)

Recharge the battery as described in Charging a Battery on page 8.

Using Batteries

- A new battery's full performance is achieved only after two or three complete charge and discharge cycles.
- To achieve full battery capacity, new batteries must be charged with the phone off for at least 24 hours before initial use.
- 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, it is time to buy a new battery.

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- Never use a charger or battery which is damaged or worn out.
- Use the battery for its intended purpose only.
- Use only batteries and chargers approved by the phone 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.
- 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 59°F (15°C) and 77°F (25°C). A phone with a hot or cold battery may temporarily not work (or charge), even when the battery is fully charged. The battery may require cooling or warming first. The performance of NiMH batteries is particularly limited in temperatures below 14°F (-10°C).
- 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) when you carry a spare battery in your pocket or purse. Short circuiting the terminals may damage the battery or the connecting object.
- When the battery is not in use, store it uncharged in a cool and dark place.
- Dispose of used batteries in accordance with local regulations. Recycle!
- Do not dispose of batteries in a fire!



NiCd
NiMH

Nickel Cadmium and Nickel Metal Hydride batteries must be recycled or disposed of properly. Must not be disposed of in municipal waste.

8. ACCESSORIES

General

A new extensive range of accessories is available for your phone. You can select the accessories that best accommodate your specific communication needs. For the availability of accessories, please check with your local dealer.

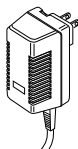
A few practical rules for accessory operation:

- Keep the accessories out of small children's reach.
- When you disconnect the power cord of any accessory, grasp and pull the plug, not the cord.
- Check regularly that all cellular phone equipment in a vehicle is mounted and operating properly.
- Installation of complex car equipment must be made by qualified personnel only.

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.

Accessory Options

ACH-8U Standard Travel Charger



To use this durable and economical charger simply plug the charger into a wall outlet and connect the lead to the bottom of your phone or desktop stand. Check the charging status on the phone display.

The charging time for a phone manufacturer approved 470 mAh battery is about 2 hours 30 minutes and for a 950 mAh battery, about 4 hours 30 minutes. Calls can be made during charging, but charging is reduced for the duration of the call.

The Standard Travel Charger can also be used as a power supply for the Light Desktop Stand CGH-3 and Compact Desktop Charging Stand CGH-4.

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CGH-3 Light Desktop Stand

The Light Desktop Stand provides you with a compact solution to keep your phone in a ready-to-use, upright position.

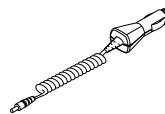


Connect your charger to the stand and into an AC wall outlet. Place your phone in the stand and check the charging status on the phone display.

The Light Desktop Stand can be used together with the Standard Travel Charger ACH-8U or Rapid Travel Charger ACH-6U. The charging time for a phone manufacturer approved 470 mAh battery is about 1 hour and 30 minutes or 45 minutes, respectively. The charging time for a phone manufacturer approved 950 mAh battery is about 4 hours 30 minutes or 1 hour 30 minutes, respectively.

LCH-6 Rapid Cigarette Lighter Charger

The multivoltage Rapid Cigarette Lighter Charger ensures that you can charge your phone battery wherever you travel. Its stylish and functional design fits well in most car interiors.



Plug the charger into your car's cigarette lighter socket and connect the lead to the bottom of your phone. A green light indicates that the charger is ready to charge. Check the charging status on the phone display.

The charging time for a phone manufacturer approved 470 mAh battery is about 45 minutes and for a 950 mAh battery about 1 hour 30 minutes. Calls can be made during the charging. The input voltage can be 12 or 24 V DC, negative grounding.

Avoid prolonged charging with the Rapid Cigarette Lighter Charger when the car engine is not running. This may cause the battery of your car to drain.

Note: In some cars the cigarette lighter plug is not provided with electricity if the ignition is switched off. Verify that the green LED light is on.

9. REFERENCE INFORMATION

Important Safety Information

Traffic Safety

- Do not use a hand-held phone while driving a vehicle. If using a hand-held phone, 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 and always switch off your phone whenever its use is forbidden, or when it may cause interference or danger.
- Operation of any radio transmitting equipment, including cellular phones, may interfere with the functioning 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 while 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.

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- Do not store or carry flammable liquids, gases or explosive materials in the same compartment as a cellular phone or any of 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-lock 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 and operating properly.
- Switch off your cellular phone when in an aircraft. The use of cellular phones in an aircraft may be dangerous to the operation of the aircraft, may disrupt the cellular network, and is illegal.
- Failure to observe these instructions may lead to suspension or denial of cellular phone 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 phone for essential communications (e.g., medical emergencies).

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

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 your local cellular service providers.

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To make an emergency call:

- ① If the phone is not on, switch it on by pressing and holding **POWER**.
- ② Press and hold **CALL** for several seconds to ready the phone for calls.
- ③ Enter the emergency number for your present location (e.g., 911 or another official emergency number). Emergency numbers vary by location.
- ④ Press **SEND**.

If certain features are in use (e.g., Keyguard), 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.

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 in AMPS networks.

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 require from your home service provider. You can then activate these functions as described in this guide.

The manual activation commands for various network services are not presented in this guide (e.g., using * and # characters 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.

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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 allow you 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 as 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 operating temperature), moisture can form inside the phone, which may damage the phone's 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.

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Troubleshooting

If the power does not come on or stay on:

- Make sure the battery is properly installed and charged.
- Be sure that the contacts on the battery and the charging stand are clean.
- Battery charge may be too low for operation. Check the display and listen for the low battery warning tones.

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

- Check the NO SVC indicator, you might be out of the cellular service area.
- Make sure that the antenna is properly installed and if your phone has an extendable antenna, make sure that the antenna is extended to its full length.
- Check if there is an error message on the display after switching on. If so, contact your local dealer.

Technical Information

Weight :	6.93 oz. (196 g) with 470 mAh Slim NiMH battery, or 8.41 oz. (238 g) with Extended 950 mAh NiCd battery
Transmitting Power:	0.6 W (+ 2 db - 4 dB)
Operating Voltage:	4.8 V (internal battery), 110 V (AC), 12 V (car)
Frequency Band:	824.040-848.970 MHz (Tx) 869.040-893.970 MHz (Rx)
Number of Channels:	832
Memory Locations:	0-40
Memory Capacity:	Locations 1-20 16 digits 16 letters Locations 21-40 32 digits 16 letters