

**NOKIA**  
CONNECTING PEOPLE



# User Guide



# Nokia 2285 User Guide

What information is needed?	Numbers	Where is the number?
My number		Wireless service provider
Voice mail number		Wireless service provider
Wireless provider's number		Wireless service provider
Provider's customer care		Wireless service provider
Model number	Nokia 2285	See "About your phone" on page 7.
Phone type	RH-3	See "Phone label" on page 6.
Electronic serial number (ESN)		See "Phone label" on page 6.

The wireless phone described in this guide is approved for use in CDMA networks.

## LEGAL INFORMATION

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POWERED

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Your phone may cause TV or radio interference (for example, when using a telephone in close proximity to receiving equipment). The FCC or 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.

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## NOTES

# 1 For your safety

Read these simple guidelines. Breaking the rules may be dangerous or illegal. Further detailed information is given in this manual.



## SWITCH OFF WHERE PROHIBITED

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



## ROAD SAFETY COMES FIRST

Don't use a handheld phone while driving.



## INTERFERENCE

All wireless phones may get interference, which could affect performance.



## SWITCH OFF IN HOSPITALS

Follow any regulations or rules. Switch the phone off near medical equipment.



## SWITCH OFF IN AIRCRAFT

Wireless devices can cause interference in aircraft.



## SWITCH OFF WHEN REFUELING

Don't use the phone at a refueling point. Don't use near fuel or chemicals.



## SWITCH OFF NEAR BLASTING

Don't use the phone where blasting is in progress. Observe restrictions, and follow any regulations or rules.



## USE SENSIBLY

Use only in the normal position. Don't touch the antenna unnecessarily.



## QUALIFIED SERVICE

Only qualified personnel may install or repair phone equipment.



## ENHANCEMENTS AND BATTERIES

Use only approved enhancements and batteries. Do not connect incompatible products.



## WATER-RESISTANCE

Your wireless phone is not water-resistant. Keep it dry.



## BACKUP COPIES

Remember to make backup copies of all important data.



## CONNECTING TO OTHER DEVICES

When connecting to any other device, read its user guide for detailed safety instructions. Do not connect incompatible products.





## CALLING

Ensure the phone is switched on and in service. Fully extend the whip antenna. Enter the phone number, including the area code, and press the talk key. To end a call, press the end key. To answer a call, press the talk key.



## EMERGENCY CALLS

Ensure the phone is switched on and in service. Fully extend the whip antenna. Press the end key as many times as needed (for example, to exit a call, to exit a menu) to clear the display. Enter the emergency number, and press the talk key. Give your location. Do not end the call until told to do so.

## • QUICK GUIDE

Make a call	Fully extend whip antenna. Enter phone number, press the <b>Send</b> key.
Answer a call	Press the <b>Send</b> key.
Answer a call with call waiting	Press the <b>Send</b> key or <b>Answer</b> .
End a call	Press the <b>End</b> key.
Ignore a call	Press <b>Silence</b> when your phone rings.
Redial	Press the <b>Send</b> key twice.
Adjust call volume	Press the up or down scroll key to increase or decrease volume, while in a call.
Use the in-call menu	While in a call, press the <b>left</b> soft key to select <b>Options</b> .
Use 1-touch dialing	Press and hold any key 2-9, after assigning dialing location.
Save a name and number	Enter a number, press the <b>left</b> soft key to select <b>Options</b> , and select <b>Save</b> . Enter a name and press <b>OK</b> .
Recall a name/number	Press <b>Contacts</b> , and select <b>Search</b> . Enter the first character of the name.
Recall a name/number during a call	Press <b>Options</b> , scroll to <b>New call</b> , press <b>Select</b> , press <b>Search</b> , and enter the first letter of the name to find.
Check voice mail	Press and hold <b>1</b> or dial your voice mailbox number
Send a text message	Press <b>Menu 01-1-1</b> , and select <b>Text</b> . Add recipient's phone number, and press <b>Options</b> . Scroll to <b>Enter text</b> , and press <b>Select</b> . Enter the message text, press <b>Options</b> , and select <b>Send</b> .
Send an e-mail message	Press <b>Menu 01-1-1 &gt; Text</b> . Enter the recipient's e-mail address, press <b>Options</b> . Scroll to <b>Enter text</b> , press <b>Select</b> . Enter the message text, press <b>Options</b> , and select <b>Send</b> .
Read new message	Press <b>Show</b> .
Reply to a message	Press <b>Options</b> , select <b>Reply</b> , and select a reply option. Write the reply, press <b>Options</b> , and select <b>Send</b> .
Reply to an e-mail message	Press <b>Options</b> , select <b>Reply</b> , and select a reply option. Write the reply, press <b>Options</b> , and select <b>Send</b> .
Send a business card (SMS)	Recall a name from the phone book. Press <b>Details &gt; Options &gt; Send bus. card &gt; Via text msg</b> . Enter the recipient's number or press <b>Search</b> to retrieve a number from the phone book. Press <b>OK</b> .

## • MENU SHORTCUTS

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### 10 KEYGUARD<sup>1</sup>

<sup>1</sup> Menu option may not be visible, based on your service provider's requirements.

## 2 Welcome

Congratulations on the purchase of your Nokia mobile phone. Nokia recommends that you read this chapter before you use your new phone.

### • WIRELESS NETWORK SERVICES

Your service provider's wireless network may be equipped to provide special features or functions for use with your Nokia phone. These features are called *Network Services*, and may include some of the following:

- Voice mail and voice privacy
- Call waiting, call forwarding, and caller ID
- Text messages
- Ability to block or send your own caller ID
- News and information services
- Selected Internet access services
- Java™ applications (For more information on applications see "Applications" on page 64.)

### Sign up with a service provider

Before you can take advantage of your service provider's network services, you must sign up with a wireless service provider and subscribe to these services. Your service provider will make available descriptions of its services and instructions for using them.

Wireless service providers may differ from each other in certain ways. For example, some networks may not support special language-dependent characters. Contact your service provider regarding your service needs.

### • ACCESSIBILITY SOLUTIONS

Nokia is committed to making mobile phones easy to use for all individuals, including those with disabilities. Nokia maintains a Web site that is dedicated to accessibility solutions. For more information about phone features, enhancements, and other Nokia products designed with your needs in mind, please visit the following Web site: [www.nokiaaccessibility.com](http://www.nokiaaccessibility.com)

Your Nokia phone is equipped with a universal 2.5-mm enhancement jack that can be used to connect any "cellular ready" or "cellular compatible" TTY/TDD device cable to your phone.



**Important:** Once your TTY/TDD device is connected to your phone, you must use the phone menu (**Menu** > **Settings** > **Enhancement settings** > **TTY**) to enable the TTY/TDD mode.

- **CONTACT NOKIA**

When you need help, the Nokia Care Center can provide information about Nokia products.

Customer Care Center, USA	Customer Care Centre, Canada
Nokia Mobile Phones 7725 Woodland Center Blvd., Suite #150 Tampa, Florida 33614 Telephone: 1-888-NOKIA-2U (1-888-665-4228) Fax: 1-813-249-9619 TTY/TDD users only: 1-800-24-NOKIA (1-800-246-6542)	Nokia Products Ltd. 601 Westney Road South Ajax, Ontario L1S 4N7 Telephone: 1-888-22-NOKIA (1-888-226-6542) Fax: 1-905-427-1070

If you ever need to call Nokia Customer Care, Nokia Customer Interaction Center, or your wireless service provider, you will need to provide specific information from your phone's label. This information is provided on the phone label.

### Phone label

The label is inside the back cover of your phone under the battery. It contains important information about your phone, including the model, type and electronic serial numbers (ESN). Nokia recommends that you note this information on the title page of this guide. Please do not remove or deface the label.

- **REGISTER YOUR PHONE**

Make sure to register your phone at [www.warranty.nokiausa.com](http://www.warranty.nokiausa.com) or 1-888-NOKIA-2U (1-888-665-4228) so that we can serve your needs better if you should call the Nokia Customer Care Center or have your phone repaired.

- **E-NEWSLETTERS**

When you register your phone, you can sign up for Nokia's e-newsletter, *Nokia Connections*, if you would like. You will receive tips and tricks on using your phone, enhancement information, and special offers.

- **CONTACT YOUR SERVICE PROVIDER**

Some service providers have preprogrammed their customer support number into the phone. Pressing and holding the 2 key (or the key that your service provider instructs you to use) for two seconds will automatically dial their customer support number. If your service provider determines that the problem is Nokia related, the provider's representative will direct you to the Nokia Customer Care Center (USA) or Nokia Customer Interaction Centre (Canada).



**Note:** This one-key feature may not be available on all systems. Contact your service provider for availability.

### 3 About your phone

This section gives you a brief introduction to your phone and provides you with quick steps for making, answering, and managing your calls. The rest of this user guide provides complete details on phone use.



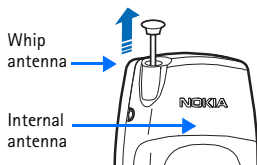
## • ANTENNAS

Your phone has three antennas:

- The internal antenna is always active.
- The whip antenna is active when fully extended.
- The GPS antenna is also internal and is activated when placing emergency calls or when **Share location** is selected from the **Location privacy** feature. For more information on **Location privacy**, see "GPS (Location Privacy)" on page 58.

Do not touch either antenna unnecessarily when the phone is switched on.

Contact with the antenna affects call quality and may cause the phone to operate at a higher power level than otherwise needed. While in a call, hold the phone to your ear.



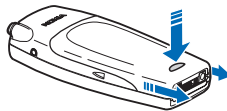
## • BATTERY



**Warning!** Use only the BL-5C battery in this Nokia phone.

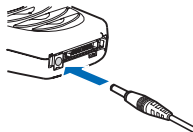
### Install

- 1 Remove the back cover.
- 2 Place the battery in the compartment with the label side facing down and the metal contacts aligned with the contact prongs. Snap the battery into place.
- 3 Replace the cover by sliding it upward until you hear a click.



### Charge

- 1 Connect the charger to an ac wall outlet.
- 2 Connect the lead from the charger to the charging port located on the bottom of the phone.
- 3 Disconnect the charger from the phone and ac outlet when the indicator stops scrolling.



**Note:** For best performance, charge the battery for 24 hours before you use the phone. The charging time depends on the charger and battery you use. For example, the charging time for the BL-5C battery with the ACP-7U charger is approximately 4 hours.

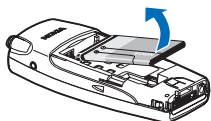


**Important:** Do not leave the battery connected to a charger for more than 72 hours, since prolonged maintenance charging could shorten its lifetime.

## Remove

You will need to remove the existing battery if you want to install a new battery or if you have purchased a spare battery. Make sure the phone has been turned off for 10 seconds.

- 1 Remove the back cover of the phone as shown in the figure on page 8.
- 2 Place your index finger in the space at the bottom of the battery, and press toward the top of the phone.
- 3 Take out the battery.



**Warning!** Use only your hands to remove the battery. Do not puncture, burn or use any objects that may damage the phone or the battery. Please recycle the battery, or dispose of properly.

## RUIM card slot

Your phone has an RUIM card slot built into its mechanics. However, the RUIM card slot is not functional in this phone model. Please avoid placing anything in this slot.

## Important battery information

- Recharge your battery only with a charger approved by Nokia.
  - You can switch the phone on and use it for calls while the battery is charging.
  - If the battery is totally empty, it may take a few minutes for the battery indicator to appear on the screen.
  - If you switch the phone on when charging is complete, **Battery full** is displayed momentarily.
  - Charging time depends on the charger and battery used. Please see "Battery information" on page 77, for more information.
  - If the battery has become completely empty, you may need to recharge it for a few minutes before you can make or receive calls.
- **SWITCH PHONE ON OR OFF**

To switch your phone on or off, press and hold the power key (located on the top of the phone) for two seconds.



**Warning!** Do not switch on the phone when wireless phone use is prohibited or when it may cause interference or danger.

- **THE START SCREEN**

The start screen refers to the phone display when no calls are in progress, and there are currently no menu or phone book entries displayed.

You can easily return to the start screen from any location (other than an active call) simply by pressing the **End** key.





## • THE SOFT KEYS

Note the two soft keys beneath the screen. The function of these keys is determined by the word shown above them on the screen.



For example, pressing the **Left** soft key when **Menu** appears above it shows the first of many menus. Scroll through the menus using the **up scroll** and **down scroll** keys, located in the center of the phone, beneath the screen.

Likewise, pressing the **Right** soft key when **Contacts** appears above it displays the phone book menu.



## • KEY FUNCTIONS

The following table contains a summary of how the various keys on your phone work.

Key	Function
	<b>Send:</b> Press the <b>Send</b> key to make a call to the name or number shown on the screen or to answer a call. Pressing this key when not in a call (or when not in the menu or phone book) displays a list of recently dialed numbers.
	<b>End:</b> Press the <b>End</b> key to end a call, to silence the ring from an incoming call, or to exit the phone book or menu completely. Used as <b>Back</b> key in Minibrowser.
<b>0 through 9</b>	<b>Number:</b> Use keys <b>0–9</b> to enter numbers and letters. Press and hold <b>1</b> to dial your voice mailbox. Press and hold <b>0</b> to launch the minibrowser.
<b>#</b>	<b># key:</b> Press the <b>#</b> key to change case of text, or to enable or disable predictive text input.
<b>*/+</b>	<b>* key:</b> Press the <b>*</b> key to enter special characters (for example, punctuation) or access special characters menu.

## • MAKE AND ANSWER CALLS

Use the following table as a quick reference for making and answering calls:

Task	Instructions
Make a call	<ol style="list-style-type: none"> <li>1 Fully extend the whip antenna.</li> <li>2 Enter the number using the keypad (include area code as needed). Press the <b>Send</b> key.</li> <li>3 Hold the phone as you would any other telephone, with the ear piece over your ear and the microphone near your mouth.</li> </ol>
Answer a call	When your phone rings, press the <b>Send</b> key.
End a call	Press the <b>End</b> key to terminate the active call.
Reject a call	Press the <b>End</b> key when you do not want to answer a call, but just want to silence the ringer.
Keypad	To avoid accidental calls, press <b>Menu 10</b> . You can also press <b>Menu</b> , and press the <b>*/+</b> (within three seconds) to lock your keypad. This activates the Keypad feature.
Unlock keypad	When the keypad is locked, press <b>Unlock</b> , and <b>*/+</b> (within three seconds). This deactivates the Keypad feature.

## • MEMORY USE

In your phone, **Calendar Notes** and **Java Applications** share a common pool of memory (storage capacity). When either of these features are used, there is less available memory for the other feature which is also dependent on shared memory. This is especially true with heavy use of some features. If your use of a feature takes all of the shared memory, your phone may display **Memory full**. To proceed, you must delete some of the information or entries from these features to make additional memory space available.

For example, entering 75 calendar notes may consume significant shared memory. Consequently, if you attempt to download a Java midlet into your phone, a message saying **Memory Full** may appear. To proceed, you must delete some of the items or information occupying the memory.

## • HELP SYSTEM

Your phone provides brief descriptions of all menu options. To view any of the help texts:

- 1 Scroll to a menu or submenu option.

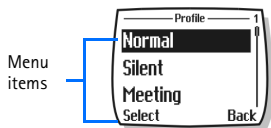
After about 15 seconds. A short message appears, describing the option and what it does.

- 2 Use the scroll keys as needed to scroll down through longer descriptions.

Press **Menu 4-2-4 (Settings > Phone settings > Help text activation)** to turn the phone help system on or off.

## • BROWSE PHONE MENUS

Your phone menu system displays choices you can make to change settings on your phone or gives you access to various phone features. Your phone has 10 menus, plus the phone book menu (**Contacts**). Each menu can contain several levels of submenus.



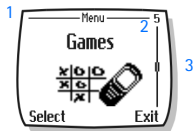
You can use menus and submenus two ways: by scrolling or by using a shortcut.

A **header line** appears at the top of your screen when in the phone book or while navigating the menus. The header line provides you with a reminder of the phone book entry or the menu or submenu with which you are working.

1 Header line

2 Menu number

3 Scroll bar with tab



A **scroll bar** appears on the right side of the screen when you scroll through the main menu. A **tab** on the bar gives you a visual indication of your relative position in the menu structure. The **menu number** is located at the top of the scroll bar.

The **menu number** is located at the top of the scroll bar.

## Scroll through menus

- 1 At the start screen, press **Menu**; and scroll through menus using up and down scroll keys.
- 2 Press **Options**, **Select**, or **OK**, pressing the soft key for the option you want.
- 3 Use the scroll and soft keys to navigate the submenus; press the **End** key to return to the start screen.

## Menu shortcuts

Menus and options are numbered so that you can jump directly to the most frequently used option. The numbers appear in the top right corner of the screen and show your location in the menu.

- 1 Press **Menu**.
- 2 Within three seconds, press **4-3-2** (**Settings** > **Time settings** > **Date**).

- **PHONE BOOK MENU**

From the start screen, press **Contacts**. The following phone book options are available:

Menu	Menu (cont'd.)
<b>Search</b> <b>Add new</b> <b>Edit name</b> <b>Delete</b> One by one Delete all <b>Add number</b> <b>Options</b> Scrolling view Name list Name+number Memory status <b>1-touch dialing</b> View number Change Delete	<b>Voice tags</b> Playback Change Delete <b>Own number</b> <b>Caller groups</b> Family <sup>a</sup> Rename group Group ringing tone Group logo Group members Remove name Add name VIP Friends Business Other

- a. Menu options for VIP, Friends, Business, and Other are identical to Family options.

## 4 Phone setup

Now that you have had a chance to learn about some of the basic functions and features of your phone, you may want to explore a few options to improve the way you use your phone.

### • THE HS-5 HEADSET

Your sales package may include the HS-5 headset. Using the headset offers you convenient, handsfree communications.

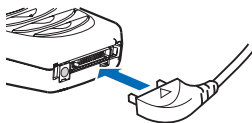
#### Connect the headset

Before using the headset:

- 1 Plug the headset into the jack at the bottom of your phone.
- 2 Wrap the device around your ear.

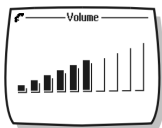
You can use the HS-5 button to answer or end a call, as well as activate voice dialing or voice commands.

You can also use the **Send** and **End** keys to answer and end calls.



#### Adjust the volume

Change your phone ear piece volume to make the caller's voice louder or softer. Adjustments to the volume can only be made during a call, by pressing the up or down scroll key.



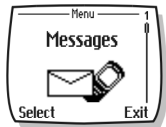
## 5 Text entry



**Warning!** Do not switch on the phone when wireless phone use is prohibited or when it may cause interference or danger.

You can enter letters, numbers, and special characters using the phone keypad when working with the phone book, calendar, text messaging, or while browsing the Internet. This section provides detailed instructions for the two text entry methods, that is, traditional text entry and predictive text input.

You have four modes available for entering information, based on the type of data you're entering (phone book, organizer notes or text messages):

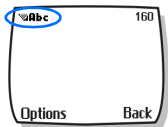


Mode	The phone shows	Use for
ABC   	sentence or title case (first letter uppercase) all uppercase letters all lowercase letters	Entering contacts, numbers or addresses in phone book Entering notes in Calendar Writing a text message
123 	number entry	Entering numbers
Special characters 	special characters list	Entering punctuation or special characters
Predictive text 	in combination with ABC mode indicators	Writing SMS text messages or calendar notes

### • ABC AND 123 MODES

A status indicator in the upper left corner of your screen indicates the mode you are in whenever you are entering information into your phone book, calendar, or text messaging.

The following table contains a list of the characters displayed when entering text and numbers from your keypad:



Key	Characters	Key	Characters
1	.@?!-,:':1	7	P Q R S 7
2	A B C 2	8	T U V 8
3	D E F 3	9	W X Y Z 9
4	G H I 4	0	Space, 0, return
5	J K L 5	*/+	Special characters menu
6	M N O 6	#	Changes letter case or mode.

Pressing a key repeatedly cycles you through all of that key options. To enter a letter, press the appropriate key repeatedly until the desired letter appears. Continue this process until the word or name is completed.



**Note:** If the next letter in the word you are entering is on the same key, wait two to three seconds for the cursor to advance, and enter the new letter, or press 0 to advance the cursor.



**Important:** Phone language settings may affect the characters associated with the phone keypad.

For example: to enter the name "Albert," do the following:

Press	Displayed text
2 for A	<b>A</b>
5-5-5 for l	<b>Al</b>
2 for b	<b>Alb</b>
3-3 for e	<b>Albe</b>
7-7-7 for r	<b>Alber</b>
8 for t	<b>Albert</b>



**Note:** Default mode is sentence case where the first letter of a name or sentence is automatically capitalized. Phone book default mode is title case where the first letter of each word is capitalized.

## OTHER OPTIONS

- **Delete mistakes**—If you make a mistake, press **Clear** to delete one character to the left. Press and hold the **Clear** key to speed up the erasing process.
- **Enter a space**—When you've completed entering a word or name, press **0** to enter a space before the next word.
- **Change letter case**—Press **#** to switch between the various text entry modes or from uppercase and lowercase letters.
- **To start a new line**—Press **0** three times.

## Enter numbers

Your phone will switch to 123 mode when entering a number into your phone book or any other purely numeric entry. When in ABC mode, you can insert numbers using any of the following:

- Press and hold the **#** key for two seconds to switch to 123 mode, and press the desired number keys. Press and hold **#** again to return to ABC mode.
- Press and hold the desired number key until the number appears on the display.
- Press the desired key repeatedly until the desired number appears.

## Enter punctuation and other characters

You can enter punctuation, specials characters, and symbols while writing text messages, entering notes in the organizer, creating phone book entries, or Internet browsing.

You can add punctuation and special characters by these methods:

- Press 1 repeatedly while in ABC mode to cycle through some of the most common punctuation marks and special characters.
- Press \* to activate the special characters list. A screen appears displaying the available special characters.
- Use the scroll keys to highlight the desired character, and press **Insert**.



**Important:** Some networks may not support all language-dependent characters.

## Special characters in phone numbers

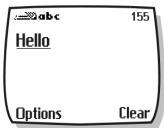
You can enter certain special characters as a part of the phone numbers you save to the phone book. Press \* repeatedly to cycle through the four special characters available when saving a phone number.

- Sends command strings to the network. Contact your service provider for more information.
  - + Links a 1-touch dialing location to the number currently being entered.
  - p Creates a pause that occurs when the phone dials a number. Numbers entered to the right of this special character are automatically sent as touch tones after a 2.5-second pause.
  - w Causes the phone to wait for you to press **Send**.
- **WRITE WITH PREDICTIVE TEXT**

Using predictive text input is a quick way to enter text, using a highly compressed database (or dictionary) of common words that tries to anticipate the word as you enter it.

Watching predictive text guess a word can be confusing, disregard the screen until all characters have been entered.

**Example:** To write "Nokia":



Press	Displayed text
6 for N	O
6 for o	On
5 for k	Onl
4 for i	Onli
2 for a	Nokia




## KEYS AND TOOLS FOR PREDICTIVE TEXT

Key	Description
2–9	Text entry. Press each key only once per letter. Press and hold the key to enter the number.
*/+	If the underlined word is not the word you intended, press this key repeatedly until the word you want appears. Press and hold this key to display a list of punctuation and special characters. Press once to accept the word and add a space. Press and hold to enter a zero.
Spell	If the word entered is not recognized, <b>Spell</b> appears above the left soft key. Press <b>Spell</b> , enter the desired word, and press <b>Save</b> .
Clear	Press once to delete the character to the left of the cursor. Press and hold to delete characters faster.
Previous	Press to scroll through previously viewed predictive text matches for a word.
#	Press and hold to enter <b>123</b> mode. Enter the desired number, and press and hold again to return to predictive text. Press to switch between sentence case, lowercase, or uppercase modes or to switch to the above modes without predictive text.
1	Press once to add a period. Press */+ repeatedly to view other punctuation marks. Press once to add a punctuation mark that predictive text converts to an apostrophe. Press and hold to enter the numeral 1.

### Turn on predictive text input

You can turn on predictive text input from the **Options** menu while writing a text message. Once enabled, predictive text is available to all features that support it.

 in upper left corner of the screen indicates predictive text is active.

#### ENABLE PREDICTIVE TEXT (QUICK METHOD)

While creating a new text message or calendar note, press and hold the **Options** key for two seconds. The message **T9 prediction on** displays and the English language dictionary is enabled (or the most recently selected dictionary).

#### ENABLE PREDICTIVE TEXT (AND SELECT DICTIONARY)

While creating a new text message:

- 1 Press **Options**, scroll to **Predictive text**, and press **Select**.
- 2 Scroll to the dictionary you want (for example, **English**); and press **Select**.

The message **T9 prediction on** is displayed. The dictionary in the selected language is enabled.

## Turn off predictive text input

While creating a new text message, press and hold the **Options** key for two seconds. OR

- 1 Press **Options**, scroll to **Predictive text**, and press **Select**.
- 2 Scroll to **Prediction off**, and press **Select**.

## • TIPS FOR PREDICTIVE TEXT

### Check a word

When you have finished writing a word, and the word is correct as shown:

- Press **O** to confirm the word and enter a space, and continue by writing the next word.  
OR
- Insert a punctuation mark; and press **O** for a new sentence.

If the displayed word is not correct:

- Press **\*/+** repeatedly until the word you want appears.
- Press **O** to confirm your choice and continue.  
OR
- Press **Options**, scroll to **Matches**, and press **Select**. Scroll to the correct word and press **Use**.
- Press **O** to confirm the word and enter a space.

### ADD A WORD TO THE DICTIONARY

When your word is not in the dictionary, the **Left** soft key becomes **Spell**.

- 1 Select **Spell** and enter the word using standard text entry.
- 2 Press **Save** to insert the correct word and save it to the dictionary.

### INSERT NUMBERS AND SYMBOLS

The procedure for entering numbers with predictive text and standard text entry is the same. Please see "Enter numbers" on page 16.

The procedure for entering symbols with predictive text and standard text entry is the same. Please see "Enter punctuation and other characters" on page 17.

### WRITE COMPOUND WORDS

- 1 Write the first part of the compound word; and press the down scroll key to accept that part.
- 2 Write the last part of the compound word.
- 3 Press **O** to enter the word.

## 6 Phone book



**Warning!** Do not switch on the phone when wireless phone use is prohibited or when it may cause interference or danger.

You can save up to 500 entries (contacts and associated numbers) in your phone book. Phone memory can store multiple numbers for each name (home, business, mobile, etc.), as well as text information (postal address, e-mail address, or note).



**Note:** The amount of detail stored for each entry may affect the total number of entries available.



### • SAVE CONTACTS AND NUMBERS

There are several ways to save contacts and numbers in your phone book. Instructions for the two most common ways are as follows:

#### SAVE A NUMBER AND NAME (PHONE BOOK MENU)

- 1 Press **Contacts**.
- 2 Scroll to **Add new** and press **Select**.
- 3 Enter the name and press **OK**.
- 4 Enter the area code (as necessary) and phone number; and press **OK**.

#### SAVE A NUMBER AND NAME (QUICK SAVE)

- 1 Enter the phone number using the keypad.
- 2 Press the left soft key twice (**Options > Save**).
- 3 Enter a name and press **OK**.
- 4 Press **Done** to return to the start screen.



**Tip:** Press and hold the **Options** soft key for two seconds after entering the number to store the number only.

### • RECALL CONTACTS AND NUMBERS

There are several ways to recall phone book entries. Once you locate the desired name and number from the phone book, you can perform any of the following tasks: call the number, edit or add information to the selected phone book entry, or delete the entry.

- Press the scroll keys to display the list of phone book entries.
- Press repeatedly to scroll through the list of contacts.
- Press **Contacts**, select **Search**, enter the first few letters of the entry, and press **Search**.



**Tip:** When viewing the list of contacts, enter the first few letters of the desired entry. The phone book automatically jumps to that section of the phone book.

## • PHONE BOOK MENUS

The phone book has several menu options from which you can choose. These options appear when you press **Contacts**. Use the scroll keys to scroll to the option you want.

Option	Function
<b>Search</b>	Search for a specific phone book entry
<b>Add new</b>	Add a new contact to your phone book
<b>Edit name</b>	Edit the name of a phone book entry
<b>Delete</b>	Delete phone book entries one by one or all at once
<b>Add number</b>	Add a phone number to an existing contact
<b>Options</b>	Displays a list of phone book options, including phone book memory status and scrolling view.
<b>1-touch dialing</b>	Assign phone book entries to any of the eight speed dialing locations
<b>Voice tags</b>	Create and manage voice tags for voice dialing
<b>Own number</b>	Display your phone numbers
<b>Caller groups</b>	Organize phone book entries into groups and categories and assign special ringing tones and graphics to the group

### Display the phone book

Your phone book information can be displayed in two different ways:

- **Name list**—Entries displayed as a list of contacts
- **Name+number**—Name and default number displayed

When viewing the phone book, use the up or down scroll keys to scroll through the phone book entries.

### Change the phone book view

- 1 Press **Contacts**, scroll to **Options**, and press **Select**.
- 2 Select **Scrolling view**, and scroll to the view option you want.
- 3 Press **OK** to confirm your choice.

## • EDIT A NAME OR NUMBER

You can edit a phone book entry at any time.

- 1 Locate the phone book entry you wish to edit.
- 2 Press **Details > Options**.
- 3 Scroll to **Edit name** or **Edit number** and press **Select**.
- 4 Edit the name or number, and press **OK**.

## • ADD A NUMBER TO A PHONE BOOK ENTRY

There are several ways to add additional numbers to an existing phone book entry. Phone memory can store up to two numbers per entry.

Once you choose to add a number, you can assign one of the following *number types* for the additional numbers: **General**, **Mobile**, **Home**, **Work**, or **Fax**.

### From the phone book

- 1 Press **Contacts**, scroll to **Add number**, and press **Select**.
- 2 Scroll to the entry you wish to modify, and press **Add number**.
- 3 Scroll to the type of number you are adding (**General**, **Mobile**, **Home**, **Work**, or **Fax**), and press **Select**.
- 4 Enter the number, and press **OK**.

### From the start screen

- 1 Enter the phone number using the keypad, and press **Options**.
- 2 Scroll to **Add to contact**, and press **Select**.
- 3 Scroll to the desired phone book entry, and press **Add number**.
- 4 Scroll to the desired number type, and press **Select**.

### By recalling the name

- 1 Locate the phone book entry you wish to edit.
- 2 Press **Details**, and press **Options** again.
- 3 Scroll to **Add number**, and press **Select**.
- 4 Scroll to the desired number type, and press **Select**.
- 5 Enter the number, and press **OK**.

### Change the number type

Every time you create a new phone book entry, your phone automatically assigns the **General** number type to the new number. You can use a phone book entry **Options** menu to change the number type for any of the phone numbers. For example, change a number type from **Work** to **Home**.

- 1 Recall the name from the phone book.
- 2 Press **Details**; and scroll to highlight the number you want to modify.
- 3 Press **Options**, scroll to **Change type**, and press **Select**.
- 4 Scroll to the number type you want, and press **Select**.



**Important:** If you plan on using Nokia PC Suite to synchronize your phone book and your PC PIM (personal information manager) application, make sure all phone numbers are assigned the correct number type. PC Sync uses this information to synchronize contacts correctly between phone and PC.

## The primary number

If a phone book entry contains multiple numbers, the number entered when the phone book entry was created is designated as the *primary number*. When you highlight a phone book entry and press the **Send** key, your phone dials the primary number.

Consider designating the number you dial most often (for phone book entries containing multiple numbers per name) as the primary number.

Any phone number can be designated the primary number by following these steps:

- 1 Recall the phone book entry you want to modify.
- 2 Press **Details**; and scroll to the number you want to set as the primary number.
- 3 Press **Options**, scroll to **As primary no.**, and press **Select**.

## • DELETE STORED CONTACTS AND NUMBERS

You can delete a number from a phone book entry, delete all details of a contact, or delete the entire contents of your phone book. Once you delete information, it cannot be recovered.

### DELETE A NUMBER

- 1 Recall the phone book entry you want to modify.
- 2 Press **Details**; and scroll to the number you want to delete.
- 3 Press **Options**, scroll to **Delete number**, press **Select**, and **OK**.

### DELETE ENTIRE PHONE BOOK ENTRY

- 1 Highlight the phone book entry you want to delete, and press **Details**.
- 2 Press **Options**, scroll to **Delete**, and press **Select**.
- 3 Press **OK** to delete the phone book entry (including all details).

### DELETE THE ENTIRE PHONE BOOK

- 1 Press **Contacts**, scroll to **Delete**, and press **Select**.
- 2 Scroll to **Delete all**, and press **Select**.
- 3 When you see the message **Are you sure?**, press **OK**.
- 4 Enter your security code, and press **OK**.

For more information on the security code, see "Security code" on page 54.

## • ADD OTHER INFORMATION TO A PHONE BOOK ENTRY

Once you have created a contact, you can add an e-mail address, a mailing address, or a note to that contact.



**Note:** Text information can only be added to existing contacts. For example, you cannot create a new contact with only an e-mail address.

- 1 Recall the phone book entry you want to modify.
- 2 Press **Details**; and press **Options** again.
- 3 Scroll to **Add detail**, and press **Select**.

- 4 Scroll to the type of information you would like to add (**E-mail**, **Street addr.**, etc.), and press **Select**.
- 5 Enter the information, and press **OK**. Press the **End** key to return to the start screen.

## • USE CALLER GROUPS

Your phone allows you to group phone book entries with similar attributes into **caller groups**. The five default caller groups are **Family**, **VIP**, **Friends**, **Business**, and **Other**. Each group has two attributes which can be defined by the user: *Rename Group* and *Group Tone*.

### Assign phone number to a caller group

- 1 Recall the desired phone book entry, and press **Details**.
- 2 Scroll to the desired phone number, and press **Options**.
- 3 Scroll to **Caller groups**, and press **Select**.
- 4 Scroll to the desired caller group (for example, **Family**), and press **Select**.

### Edit caller group options

You can edit various aspects of a caller group.

#### SETTING A RINGING TONE AND GRAPHIC FOR A CALLER GROUP

- 1 Press **Contacts**.
- 2 Scroll to **Caller groups** and press **Select**.
- 3 Scroll to one of the **caller groups** and press **Select**.
- 4 Scroll to one of the following functions and press **Select**.
  - **Rename group**—Enter the new name for the caller group and press **OK**.
  - **Group ringing tone**—Scroll to the desired tone and press **OK**. **Default** is the tone selected for the currently selected profile.
  - **Group logo**—Choose to turn the group logo on or off for the selected caller group.
  - **Group members**—Press **Select** to view group members. To add or remove a member, press **Options**, and select **Add name** or **Remove name**.



**Note:** If you selected **Send graphic**, you should enter the recipient's phone number or recall it from the phone book and press **OK**. Check with your service provider for availability of this feature.

## • CHECK MEMORY STATUS

You can check the percentage of phone memory that is dedicated to the phone book, that is in use, and the percentage that remains available.

- 1 Press **Contacts**.
- 2 Scroll to **Options**, and press **Select**.
- 3 Scroll to **Memory status** and press **Select**.

## 7 Call log

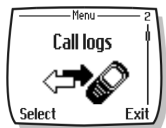


**Warning!** Do not switch on the phone when wireless phone use is prohibited or when it may cause interference or danger.

Your phone keeps a log (record) of call-related information including phone numbers and call times.

Before your phone can log missed or received calls properly:

- 1 You must have a subscription to caller ID service.
- 2 Your phone must be turned on and in a digital service area.
- 3 The caller must not have caller ID blocked.
- 4 Your phone time and date must be set.



**Note:** If the incoming call has caller ID blocked, the number cannot be recorded in the call log. If you try to view the call log, **No number** is displayed.

### • CHECK MISSED, RECEIVED, OR DIALED CALLS

Your phone records information about the 20 most recently missed, received, and dialed calls. To view call log entries:

- 1 Press **Menu > Call log > Select**, and scroll to the desired call type (**Missed calls**, **Received calls**, or **Dialed numbers**), and press **Select**.
- 2 Use the up and down scroll keys to scroll to the desired call log entry type (missed, received, or dialed calls), and press **Options**.



**Note:** If the phone number recorded by the call log matches a number stored in your phone book, the name of the phone book entry is displayed.

### View call log options

The table below contains a list of options available for all call log entries.

Option	Description
Call time	Shows the time when the call was missed, received or placed
Send message	Allows you to write and send a text message to numbers listed in the call log
View number	Displays the phone number when call log entry matches a number found in your phone book
Use number	Allows you to edit the number shown on the screen
Save	Saves the number in your phone book
Add to contact	Adds the number to an existing phone book entry
Delete	Removes the number from the call log
Call	Redials the displayed number



## MISSED CALLS

When you miss calls, **Missed calls** appears on your phone screen along with the number of calls missed.



**Important:** You are notified of missed calls only if your phone was turned on and you are in a digital service area.



**Note:** If you chose the **Forward if not answered** option in **Call Forwarding**, your phone handles these forwarded calls as missed calls.

## DIALED NUMBERS

You can view the list of dialed calls without having to access the **Call log** menu. From the start screen:

- 1 Press the **Send** key. (The most recently dialed call is displayed).
- 2 Use the scroll keys to view the call log entries.
- 3 Press the **Send** key again to redial the number displayed, or press **Options** to work with the selected call log entry.

## • DELETE RECENT CALL LISTS

Your phone **Call log** uses *call lists* to store numbers of incoming, outgoing, and missed calls. Use the **Delete recent call lists** menu to delete the log of phone numbers dialed, received, or missed. The **All** option clears all numbers in all lists, whereas the other options clear only the numbers associated with that list.



**Caution!** This operation cannot be undone. Clearing the **Dialed numbers** call list clears the list of dialed calls accessed by pressing the **Send** key.

- 1 Press **Menu 2-4 (Call log > Delete recent call lists)**.
- 2 Use the up or down scroll keys to highlight the desired option: **All**, **Missed**, **Dialed** or **Received**.
- 3 Press **Select** to confirm your selection.

## • USE CALL TIMERS

Your phone uses *call timers* to track the amount of time you spend on each call. You can review phone use by checking the call timers.



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

### ACCESS THE VARIOUS CALL TIMERS:

- 1 Press **Menu 2-5 (Call log > Call timers)**.

- 2 Use the scroll keys to scroll through the following options:

Option	Description
Duration of last call	Displays elapsed time of the last call you made
Duration of received calls	Displays total time for all incoming calls
Duration of dialed calls	Displays total time for all outgoing calls
Duration of all calls	Displays sum total for all incoming and outgoing calls
Life timer	Shows the time used for all calls for the life of the phone. This option cannot be reset.
Clear timers	Clears (deletes) all call timers except <b>Life timer</b>

## • TURN ON A CURRENT CALL TIMER

Your phone can display a call timer showing elapsed time of the current call. When the call is completed, the timer displays the call length.

- 1 Press **Menu 2-5-1-1 (Call log > Call timers > Duration of last call > Show call time on display)**.
- 2 Press **Select**; and scroll to **On** and press **OK**.



**Tip:** After a call has ended, press any key on your phone to clear the current call time from the screen.

## • CLEAR CALL TIMERS



**Caution!** This action cannot be undone.



**Tip:** If using call timers to log the amount of time spent on calls, you may want to record the information from the call timers before you clear them.

- 1 Press **Menu 2-5-6 (Call log > Call timers > Clear timers)**.
- 2 The **Security code** field appears.
- 3 Enter your security code and press **OK**.

## • DATA/FAX TIMERS (DATA AND MINIBROWSER)

The call log records and displays the length of digital data/fax calls, as well as meters the amount of data transferred during data/fax calls. The call log also records this same information when you use the minibrowser to access the wireless Internet.



**Note:** Data/fax timers is a network dependent feature. Contact your service provider for more information on this feature.

## Access data-related call timer

- For data/fax call timers, press **Menu 2-6 (Call log > Data/fax calls)**
- For minibrowser call timers, press **Menu 2-7 (Call log > Minibrowser calls)**

## Data-related call timer options

The following call timer options are available for data and browser calls:

- **Last sent (or received) data**—amount of data displayed in kilobytes
- **All sent (or received) data**—amount of data displayed in kilobytes
- **Duration of last data/fax call**—length of time spent on last data/fax call.
- **Duration of all data/fax calls**—running total of all calls.
- **Clear all data/fax logs**—clears all timers and data logs.

## Minibrowser timer options

The available options for the minibrowser call timers are similar to those listed above for data/fax calls.

## 8 Voice mailbox

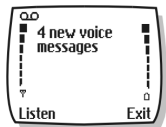


**Warning!** Do not switch on the phone when wireless phone use is prohibited or when it may cause interference or danger.

Voice mail is a feature that enables those who call you to leave a voice message in the event you are unable to answer your phone. When using your phone in conjunction with your service provider's voice mail system, you can retrieve your messages at any time.



**Note:** Voice mailbox is a network dependent feature. Check with your local service provider to subscribe to and use this feature.



### • STORE YOUR VOICE MAILBOX NUMBER

Before you can retrieve voice messages, store your voice mailbox number in your phone:

- 1 Press **Menu 01-2-3 (Messages > Voice messages > Voice mailbox number)**.
- 2 Enter your voice mailbox phone number, and press **OK**.

Your voice mailbox number can be up to 32 digits long.



**Note:** If your phone number changes, you may need to re-enter your voice mailbox number.



**Tip:** You can store your voice mailbox password and/or PIN number as a part of your voice mailbox number. For more information, see "Save as a phone book entry" on page 51.

### • SET GREETINGS

Voice greetings may vary in different wireless systems. If you need information about how to record your greeting, contact your service provider.

### • LISTEN TO YOUR VOICE MESSAGES



**Note:** These are various ways to retrieve your voice messages, depending on your service provider. Call your service provider if you have any questions.

#### LISTEN WHEN NOTIFIED

If your phone plays an alert tone and **New voice message** is displayed, press **Listen** and follow the prompts. If you want to listen to your messages later, press **Exit**.

#### LISTEN LATER

From the start screen, press and hold **1** for two seconds.

OR

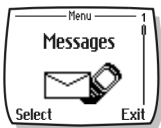
Press **Menu 01-2-1 (Messages > Voice messages > Listen to voice messages)**.

**Calling voice mailbox** appears on the screen. Follow the audio prompts from the voice mail system to review your messages.

## 9 Text messages



**Warning!** Do not switch on the phone when wireless phone use is prohibited or when it may cause interference or danger.



You can use the **Messages** menu (**Menu 1**) and short message service (SMS) to read, write, and send text messages to another phone in your network. You may also be able to use the minibrowser e-mail feature to send text messages to phones in other networks.



**Important:** When sending SMS messages, your phone may display **Message Sent** (where service is available). This is an indication that the message has been sent by your phone to the SMS network. This is not an indication that the message has been received at the intended destination. For more details about SMS services, check with your service provider.



**Note:** This function can be used only if it is supported by your network operator or service provider. Only devices that offer compatible e-mail features can receive and display messages. It may require a separate subscription.

### • WRITE A MESSAGE

You can use the **Messages** menu to create and send text messages to another mobile phone in your network, to another mobile phone in another network, or to an e-mail recipient. You can also save a draft of your message in the **Outbox** folder for later use.

#### Create and send a message



**Important:** Use this method when sending a message to recipients in the same wireless network. If the recipient has a different service provider, you may need to send the message as an e-mail (see "Create and send" on page 33).

- 1 From the start screen, press **Menu**, and press **Select**.
- 2 Select **Text messages**, and select **Create message**.
- 3 Scroll to **Add number**, and press **Select**.
- 4 Enter the phone number of the recipient, and press **OK**.

OR

Press **Search**, highlight the desired number stored in your phone book, and press **Select**.

- 5 Press **Options**, scroll to **Enter text**, and press **Select**.
- 6 Enter your message.



**Tip:** Since the network limits the number of characters in a message, a character counter appears in the upper right-hand corner of your phone display. This phone supports 160 character SMS messages.

- 7 To send the message, press **Options**, and select **Send**.

## USE OTHER OPTIONS

You may use the following as a shortcut for sending a new text message:

- 1 Enter the recipient's phone number, and press **Options**.
- 2 Scroll to Send message, and press **Select**. Continue the creation process as described.

## View message options

The table below lists several options available while creating a text message. To view these options, press **Options** at the text entry screen.

Option	Description
Send	Send the current text message to the recipients.
List recipients	Add or removes recipients to the message.
Settings	Mark a message as urgent, to request a delivery receipt or to specify a callback number.
Save message	Save the current message to the desired folder.
Clear screen	Clear the screen of all text and characters.
Exit editor	Return to the Messages menu.
Insert contact	Insert a phone book entry into the text message.
Insert number	Insert a phone book number into the text message.
Use template	Add text from a template to the current message.
Insert picture <sup>a</sup>	Add a picture to the current text message.
Insert word, Edit word	Insert a word not found in the dictionary or edit a word then add it to the dictionary.
Add-ins <sup>a</sup>	Add sounds, animations or pictures to a message.
Style <sup>a</sup>	Change the font type, font size and alignment of message text.
Predictive text	Enable or disable predictive text entry. Select the desired language of dictionary used.
Match <sup>a</sup>	Display a list of other options for the word currently displayed by predictive text.
Save sound, Save animation, Save picture <sup>a</sup>	One of these options appears if you receive a sound, animation, or picture that does not currently exist in the phone. Select <b>Options</b> while the item is highlighted to get to the save command.

- a. This option is an enhanced messaging services option only. It is not supported by all networks or providers. Check with your local service provider for more information on the availability of this option.

## Enhanced messaging options

Enhanced messaging functions in the same manner as text messaging, but it offers additional options for the style and content of text messages.



**Note:** Enhanced messaging services are not supported by all networks or providers. The ability to send or receive an enhanced message is network dependent. Check with your local service provider for more information on these options.

### ADD SOUNDS, ANIMATIONS, OR PICTURES TO A MESSAGE

- 1 Create a new text message as described in steps 1–5 in the section, "Create and send a message" on page 30.
- 2 Press **Options**.
- 3 Select **Add-ins**.
- 4 Select **Sound, Animation, or Picture**.  
You can select from 10 different sounds, 15 different animations, and eight different pictures. These items can be added to your text message. You can attach multiple items to an outgoing text message.

### CHANGE THE FONT STYLE OF A MESSAGE

- 1 Create a new text message as described in steps 1–5 in the section, "Create and send a message" on page 30.
- 2 Press **Options**.
- 3 Select **Styles**.
- 4 Select **Font type, Font size or Text alignment**.
- 5 Scroll to the option you would like to apply to the text message and press **Select**.  
You can apply multiple options to each message you create.

## • MESSAGE TEMPLATES

Templates are short, prewritten messages which can be recalled and inserted into new text messages when you're short on time.

- 1 Create a new text message as described in steps 1–5 in the section, "Create and send a message" on page 30.
- 2 Instead of entering your own message, press **Options**, scroll to **Use template**, and press **Select**.
- 3 Scroll to one of the available templates.
- 4 Press **Select** to enter the text into your new message.
- 5 Complete the process to send your message.

You can also create a new message while browsing the **Templates** folder.

- 1 Press **Menu 01-1-5 (Messages > Text messages > Templates)**.
- 2 Scroll to the desired template, and press **Select**.
- 3 Press **Options**, and select **Edit** to modify the message or **Use number** to select a recipient.
- 4 From the message options list, select **Send** to send your message.

## • E-MAIL

You can also use the Messages menu to write and send text messages to a person's Internet or corporate e-mail account or to phones in other networks. If the phone displays **Cannot Send to e-mail recipients**, your message will not be delivered to computer email addresses, but it will be delivered to compatible phones that can receive e-mails.

### Create and send

Use the same procedure for creating and sending e-mail messages as found in the section, "Write a message" on page 30. However, select **Add e-mail**, and enter the e-mail address, or press **Search** and recall an e-mail address stored in your phone book.

### Messages to phones in other networks

Most service providers now have the ability to route e-mail messages to your phone (appearing as text messages). The following are just a few examples of how your phone e-mail address may appear:

2135551234@myserviceprovider.com  
 username@serviceprovider.com  
 2135551234@mobile.myserviceprovider.com


It can be difficult to send messages to phones outside your service provider's network using traditional text messaging. However, it is possible to send a text message as an email to phones outside your service provider's network (provided the recipient's phone is capable of receiving email text messages).

Follow the instructions, "Write a message" on page 30, but select **Add e-mail**. Enter the e-mail address associated with the recipient's phone number (or press **Search** and recall the e-mail address stored in your phone book).



**Important:** This feature may require subscription to special services. Please check with your service provider for more information and for the e-mail address assigned to your phone.

## • RECEIVE MESSAGES



When you receive a text message, the  indicator and **Message(s) received** appears on the screen (where # is the number of new messages received).

- 1 Press **Show** to read the message or **Exit** to view it later.
- 2 While reading the message, press **Options** to view the list of message options, and press **Select** to choose the desired option.

### READ MESSAGES LATER

- 1 Press **Menu** > **Messages** > **Text messages**.
- 2 Scroll to **Inbox**, and press **Select**.
- 3 Scroll to the desired message; and press **Select** to read the message.



**Note:** The  icon in front of the message header indicates the message has not been read.  in front of the message header indicates you have already viewed the message.



## • RESPOND TO A MESSAGE

You have several options when reading a text message. Press **Options** to display the following list of choices:

Option	Description
Delete	Deletes the current message.
Reply	Replies to the current message.
Use number	Captures the phone number in the message (or from the message sender) with the option to <b>Save</b> (as new phone book entry), <b>Add to contact</b> , <b>Send message</b> , or <b>Call</b> .
Save	Saves current message to another folder.
Forward	Forwards current message to another user.
Rename	Renames existing message title as seen in the message list.
Use Web link	Captures the URL in the message and allows you to go directly to that site (through the Minibrowser) or to save it as a bookmark.
Save address	Captures an e-mail address in the message (or the sender of an e-mail text message).



**Note:** Some of these options may not be visible. For example, **Use Web link** appears only when a URL is present in an SMS message.

## • REPLY TO A MESSAGE

You can reply to a text message either by a traditional text message or by an e-mail message. The origin of the message or the sender's wireless network affects how you reply to the incoming message.

### SMS

- 1 While viewing a message, press **Options**.
  - 2 Scroll to **Reply** and press **Select**.
  - 3 Scroll to one of the following reply types and press **Select**:
    - Empty screen**—gives you an empty text buffer
    - Original text**—includes original message in the reply message
    - Template**—allows you to select a template from the **Templates** folder
    - Standard answer templates**—including **See you in**, **See you at**, **Sorry, I can't help you on this.**, **I will be arriving at**, **Please call**, **I'm at home**, **I'm at work**, **I'm in a meeting**.
  - 4 After you write your reply, press **Options** > **Send**.
- A copy of all sent messages (up to the memory limit) remain in your **Outbox**, unless you turn this feature off in **Message settings**.

Press **Back** to return to the **Messages** menu or press the **End** key to return to the start screen.

## E-mail message

Use the methods described above for replying to SMS messages sent from an e-mail address.



**Note:** If the incoming e-mail message is improperly formatted, you may be required to re-enter the e-mail address. Press **Options** > **Add e-mail** to re-enter the e-mail address.

## • DELETE MESSAGES

You have several options for erasing individual messages or erasing the contents of an entire folder. You may need to delete older or unwanted messages in order to free up phone memory for new messages.

### Delete options

The **Messages** menu has an option that allows you to delete the entire contents of your folders as described below.

**All read**—deletes all read messages from all folders (unread messages in **Inbox** remain intact).

**Inbox**—deletes read messages in this folder (unread messages remain intact).

**Outbox**—deletes all messages in this folder.

**Archive**—deletes all messages in this folder.

### Erase messages in the message folders

- 1 At the start screen, press **Menu 01-1-8** (**Messages** > **Text messages** > **Delete messages**).
- 2 Highlight the folder whose contents you want deleted and press **OK**.
- 3 Enter your security code (if prompted) and press **OK**.

### Erase individual text messages

- 1 From the **Inbox**, **Outbox**, or **Archive** folder, highlight the message you wish to delete.
- 2 Press **Options**, scroll to **Delete**, and press **Select**.
- 3 Press **OK** to confirm your choice.

### Forward a message

You can forward any incoming text messages, whether they were sent as traditional text messages or as e-mail messages. You can forward a message to a single user or to a list of users.

- 1 While viewing a message, press **Options**.
- 2 Scroll to **Forward** and press **Select**.
- 3 Select **Add e-mail** or **Add number**, and address the message.  
For multiple recipients, press **Options** again, and add additional e-mail addresses or phone numbers.
- 4 Press **Options**, scroll to **Send**, and press **OK**.

If you want to edit the forwarded message, select **Edit text** from the options menu prior to sending the message.

## View message settings

You can assign several settings to the text messages (new messages, replies, or forwarded messages). The following settings are available from the message **Options** menu:

- **Urgent** sends the message marked *urgent* and appears in recipient's **Inbox** with higher priority than other messages.
- **Deliv. note** lets you know when your message has been delivered.
- **Callback no.** includes your number (or a number that you enter or recall from the phone book) in the body of the message.


### ASSIGN MESSAGE OPTIONS

- 1 After entering text, press **Options**, scroll to **Settings**, and press **Select**.
- 2 Scroll to the desired setting, and press **Mark**.
- 3 Press **Done** > **Yes** to save changes to your message.
- 4 Scroll to **Send** > **Select** (or select a different menu option).

## Message memory

Messages are stored in the following locations:

- **Inbox** stores new messages and read messages.
- **Outbox** saves copies of all sent messages or messages waiting to be sent (in the event the network is temporarily unavailable).
- **Archive** used to file read messages and sent messages for long term storage.

A blinking  icon indicates the text message memory is full. Before you can receive, save, or send any new messages, you must delete older messages from your **Inbox**, **Outbox**, or the **Archive** folder.

## • SETTINGS

Specify several settings that affect the overall way your phone handles text messaging. Use **Menu 01-1-9 (Messages > Text messages > Message settings)** to configure the following:

- **Sending options**—used to specify normal or urgent priority, request delivery note, or specify that a callback number be sent automatically.
- **Other settings**—used to specify the font size in which messages will be displayed. Also used to configure how your phone automatically handles incoming messages when your **Inbox** or **Outbox** are full, and saves copies of sent messages automatically. If the phone has enhanced messaging services, and you can control the playback of sounds sent to your phone in messages.

## • FOLDERS

You have several options for storing and organizing your text messages. The following pages explain further about the various folder options.

**Inbox**—Text messages you receive remain stored in your **Inbox** until you delete them or move them to the **Archive** folder.

**Outbox**—Messages that cannot be sent immediately can be saved so you can come back to it later. Your phone stores the message in **Outbox**.

If you try to send a text message and the network is unavailable, the outgoing message will be saved in **Outbox**.

You can work with messages saved in the outbox by following these instructions:

- 1 From the **Text messages** menu, scroll to **Outbox**, and press **Select**.
- 2 Scroll to the desired message, and press **Select**.
- 3 Press **Options**, and press **Resend** (or **Edit** if the message was a saved draft).

From this point, you have several options, including:

- Select **Edit message** and continue working with the message.
- Scroll to **Add e-mail**, **Add number**, or **Add list** to add additional recipients.
- Scroll to **Send**, and press **Select** to send the message.

## 10 Personalization



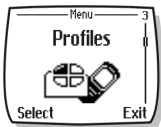
**Warning!** Do not switch on the phone when wireless phone use is prohibited or when it may cause interference or danger.

### • LEARN ABOUT PROFILES

A *profile* refers to a group of settings you can use to customize the way your phone works. You can use the existing profiles or you can customize a profile to suit your own preferences. Some of the items you can customize are:

- Ringing options and vibrating alert
- Ringing tones and ringing volume
- Keypad and message alert tones
- Warning tones

Your phone comes with five profiles: **Normal** (default setting), **Silent**, **Meeting**, **Outdoor**, and **Pager**.



### • SELECT A PROFILE

#### QUICK METHOD

- 1 Press the power key briefly.
- 2 Use the scroll key to scroll to the profile you want to use.
- 3 Press **Select** to select a profile.

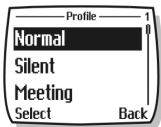
#### PROFILES MENU METHOD

- 1 Press **Menu 3 (Profiles)**.
- 2 Scroll to the profile you want to use, and press **Select**.
- 3 Press **Select** again to choose the highlighted profile.

### • CUSTOMIZE A PROFILE

- 1 Press **Menu 3 (Profiles)**.
- 2 Scroll to the profile you want to customize, and press **Select**.
- 3 Scroll to **Customize**, and press **Select**.

The following sections describe each of the options you can customize.



### Set ringing options

You can choose the way your phone rings to notify you of incoming calls. This setting does not affect text message alert tones.

- 1 From a profile **Customize** menu, scroll to **Ringing options**, and press **Select**.

- 2 Scroll to one of the ringing options described below, and press **Select**.

Option	Description
<b>Ring</b>	The phone rings normally.
<b>Ascending</b>	Ringing volume increases in volume if the phone is not answered.
<b>Ring once</b>	The phone rings once to indicate an incoming call.
<b>Beep once</b>	The phone beeps once to indicate an incoming call.
<b>Silent</b>	The phone makes no sound.



**Important:** The **Silent** or **Beep once** ringing option disables any melody you choose. To hear a ringing tone while editing a profile, make sure one of the other ringing options is selected.

## Set a ringing tone

A ringing tone is the melody your phone plays when you receive a call. You can set the ringing tone to a specific sound effect or to a melody to personalize how the phone rings. Your phone can store 20 different tones.

- 1 From a profile **Customize** menu, scroll to **Ringing tone**, and press **Select**.
- 2 Scroll through the options and listen; when you hear the ringing tone you want to use, press **Select**.

## Set ringing volume

You can set the default ringing volume for incoming voice calls and message alert tones. There are five different levels of volume.

- 1 From a profile **Customize** menu, scroll to **Ringing volume**, and press **Select**.
- 2 Scroll to an option and listen. When you hear the ringing volume you want to use, press **Select**.

## • RENAME PROFILES

You can rename any of the profiles except **Normal**. You may want to use your own name for one of the profiles. When you select this profile, your name appears on the start screen.

- 1 Press **Menu 3 (Profiles)**.
- 2 Scroll to the desired profile, and press **Select**.
- 3 Select **Customize**, scroll to **Profile name**, and press **Select**.
- 4 Enter the new name and press **OK**.

## Select and customize an enhancement profile



**Note:** You must have an enhancement (such as a TTY/TDD) attached to your phone prior to selecting the **Enhancement settings** menu.

To select and customize profiles for use with the headset, handsfree device (car kit), or TTY/TDD:

- 1 Press **Menu 4-4 (Settings > Enhancement settings)**.
- 2 Scroll to **Headset** or **TTY/TDD** and press **Select**.

## HEADSET

The following options are available. Scroll to the option of your choice and press **Select** to enter the option's submenu and modify its settings.

**Default profile**—Choose the profile you wish to be automatically activated when your phone is connected to a car kit.

**Automatic answer**—Calls are answered automatically after one ring when connected to a car kit. Scroll to **On** or **Off** and press **Select**.

## TTY/TDD

The **Default profile** and **Automatic answer** options are available. Please refer to "Headset" on page 40, for a description of these options. In addition, the following option is available:

**Use loopset**—Enable use of the LPS-4 mobile inductive loopset. Scroll to **Yes** or **No** and press **Select**.

## • DOWNLOAD A RINGING TONE

Your phone has 35 predefined ringing tones and can store up to 10 new ringing tones (sent from an Internet Web site as an SMS or created or downloaded using Nokia PC Suite).



**Note:** Buzzer tones can be sent using SMS.

Once your phone receives a new ringing tone, the phone displays **Ringing tone received**.

- 1 Press **Options**; and choose **Playback, Save, or Delete**.
- 2 Press **OK**.

If you choose to save the new ringing tone, it becomes part of the ringing tone list available to you when you customize a profile (see "Customize a profile" on page 38).

## • SET THE DISPLAY LANGUAGE

You can set your phone to display information in different languages.

Your possible choices are English, Spanish, and French.



**Note:** Some languages may vary due to regional differences. All of these languages may not be available in your phone.

- 1 Press **Menu 4-2-1 (Settings > Phone settings > Language)**.
- 2 Scroll to the language you want to use and press **Select**.

## • SET THE CLOCK

Your phone contains a real-time clock that can be set two different ways: the clock can use the time and date information provided by the wireless system, or it can be set manually.

The clock will display the current time and date on the start screen. You can also choose to hide the clock if you prefer. Please see "Display or hide the clock" on page 41.



**Note:** Your phone also has an alarm clock. See "Alarm clock" on page 60 for more information.

By default, the clock gets its information from the wireless network. If you wish to override the network clock, do the following:

## Manually set the clock

- 1 Press **Menu 4-3-1** (**Settings > Time settings > Clock**).
- 2 Scroll to **Set the time**, and press **Select**.
- 3 Enter the current time, and press **Select**.  
For example, to enter 7:30, enter 0730.
- 4 Scroll to **am** or **pm**, and press **OK**.

## Selecting time format

- 1 Press **Menu 4-3-1** (**Settings > Time settings > Clock**).
- 2 Scroll to **Time format**, and press **Select**.
- 3 Scroll to either **24-hour** or **am/pm**, and press **Select**.

## Allow the network to set the clock

- 1 Press **Menu 4-3-3** (**Settings > Time settings > Auto-update of date and time**).
- 2 Scroll to **On** (or **Confirm first**), and press **Select**.

Selecting the **On** option will set your phone clock to be automatically updated by your network. Selecting **Confirm first** will prompt the network to ask you if you want the date and time updated before it is updated.



**Important:** If you use the **Auto-update of date and time** option while outside your digital network, you may be prompted to enter your own time manually (see "Manually set the clock" on page 41). Network time will replace the time and date you set once you re-enter your digital network.



**Note:** If your battery has been removed or has drained outside the digital network, you may be prompted to enter your own time (once the battery is replaced or recharged, and you are still outside of the digital network).

## Display or hide the clock

- 1 Press **Menu 4-3-1** (**Settings > Time settings > Clock**).
- 2 Depending on the current settings, either **Hide clock** or **Show clock** is highlighted.
- 3 Press **Select**.



## • VOICE COMMANDS

The voice command feature provides handsfree operation of certain menu options and commands. Just like voice dialing, you must create a voice "tag" for the commands you want to use (please read "Assign a voice tag" on page 48 for detailed information on voice tags). The following table lists menu options for use with voice commands:




Option	Description
<b>Profiles</b>	Switch between <b>Normal, Silent, Meeting, Outdoor, and Pager.</b>
<b>Voice mailbox</b>	Access your voice messages.
<b>Recorder</b>	Start recording a memo.
<b>Call log</b>	Access the Call log menu.

## Create a voice tag for a menu option



**Important:** Please see "Voice tag notes" on page 48, for more information on creating voice tags.

- 1 Press **Menu 6-2 (Voice > Voice commands)**.
- 2 Scroll to the menu option you wish to tag, and press **Select**.
- 3 Press **Options**, and select **Add command**.
- 4 Press **Start**.
- 5 After the tone sounds, speak the voice tag clearly into the microphone.

The phone replays then saves the recorded tag. The  icon appears next to commands which have voice tags assigned.

## Use a voice command



**Warning!** Do not use voice command in an emergency situation. In emergencies, stress causes changes in your voice, which may keep the phone from recognizing your voice command.

- 1 At the start screen, press and hold **Contacts** for 1–2 seconds.  
A tone is heard and **Please speak now** is displayed.
- 2 After the tone, clearly speak the voice tag that you recorded previously into the microphone.

Another option for initiating a voice command is as follows:

- 1 Press the headset button momentarily at the start screen.  
The alert tones plays through the headset.
- 2 Speak the voice tag into the headset microphone.  
The voice tag will playback through the headset to confirm your choice.

## Work with voice tags

You can listen to an existing voice tag (in case you forgot what you recorded), rerecord a voice tag, or delete an existing tag.

- 1 Press **Menu 6-2 (Voice > Voice commands)**.
- 2 Scroll to the menu option you wish to tag, and press **Select**.
- 3 Press **Options**; scroll to either **Playback, Change, or Delete**; and press **Select**.
- 4 If you chose **Change**, press **Start** to record again.  
The new tag that is recorded replaces the old information.

## 11 Advanced features



**Warning!** Do not switch on the phone when wireless phone use is prohibited or when it may cause interference or danger.



**Note:** Some in-call options are Network Services features. Contact your service provider for information and availability.

This chapter describes advanced calling features such as conference calling, call waiting, and the use of calling cards for calls. Not all the features described here are available in all wireless network systems.

### • IN-CALL OPTIONS

Your phone allows you to use a number of features during a call. These features are known as *in-call options*.

You cannot use all these options at all times. This section tells you when you can use a certain option.

- 1 To access an option during a call, press **Options**.
- 2 Scroll to one of the following options, and press **Select**:

Option	Description
<b>Mute or Unmute</b>	Disables or enables the microphone. If mute has already been selected, <b>End mute</b> is displayed. These options affect any enhancements connected to the phone (headset, car kit).
<b>New call</b>	Initiates a new call while in a call (call-waiting and three-way calling).
<b>End all calls</b>	Ends all active calls (call-waiting or three-way calling).
<b>Touch tones</b>	Manually enters a touch tone string (series of tones) or search for a string in your phone.
<b>Contacts</b>	Views the phone book. Press <b>Back</b> to close the phone book and return to call.
<b>Menu</b>	Displays the main menu.

### • USE CALL FORWARDING

When you use *call forwarding*, your network redirects incoming calls to another phone number. Using this feature helps to prevent missing important phone calls.



**Important:** Call forwarding is a network-dependent feature and may not work the same in all networks. Contact your service provider for availability and for your network's feature codes.

## Feature codes

Your network requires separate codes for activating and cancelling the various types of call forwarding. Your service provider can provide you with the necessary feature codes for these network services.

Once you store these feature codes in your phone, they are sent automatically to the network when you select one of the call forwarding options from your phone menu.

Your phone can store the following types of feature codes:

Feature code type	Description
<b>Forward all calls</b>	Forwards all incoming calls to the number you specify
<b>Forward if busy</b>	Forward incoming calls when you are in a call
<b>Forward if not answered</b>	Forwards incoming calls to another number when you are unable to answer
<b>Forward if out of reach</b>	Forwards incoming calls to another number when you are out of the network or when the phone is switched off
<b>Forward all data calls</b>	Forwards all incoming data calls to the number you specify
<b>Cancel all call forwarding</b>	Cancels all call forwarding options you may have set

## Store a code

- 1 Press **Menu 4-6-5** (**Settings** > **Network services** > **Network feature setting**).  
The **Feature code** field appears after a few seconds.
- 2 Enter the feature code your service provider gave you. For example, \*90 for activating **Forward if busy**, and press **OK**.
- 3 Press **Select** when **Call forwarding** is displayed.
- 4 Scroll to the type of forwarding that matches the feature code you entered (for example, **Forward if busy**, and press **Select**).
- 5 Select **Activate**.

The Activate feature code is now stored in your phone, and you are returned to the **Feature code** field. Continue entering other feature codes (for example, \*900 to cancel **Forward if busy**), or press the **End** key to return to the start screen.



**Important:** Once you enter a network feature code successfully, the feature becomes visible in the **Network services** menu.

## Activate or cancel call forwarding

After you store the correct feature codes, you can activate or cancel call forwarding as follows:

- 1 Press **Menu 4-6-2** (**Settings** > **Network services** > **Call forwarding**).
- 2 Scroll to the desired call forwarding option, and press **Select**.

- 3 Highlight **Activate** and press **Select**.
- 4 Enter the number to which you want your calls forwarded (or press **Search** to recall a number from the phone book), and press **OK**.

Your phone calls the network to activate or cancel the feature you have requested. The network sends a confirmation when the feature is activated or cancelled successfully.

## • CALL WAITING

This network service lets you receive an incoming call when you are already in a call. When you receive an incoming call, your phone displays the caller's phone number (or the caller's entry in your phone book). The phone also beeps, notifying you of the incoming call.

To answer call waiting, press the **Send** key or **Answer** to place the current active call on hold and automatically answer the new call.

To switch between two calls, accepting the waiting call puts the first caller on hold. To put the second caller on hold and reconnect with the first caller, press the **Send** key.

To end an active call, simply allow the other party to hang up; the call on hold then becomes the active call.

## • CONFERENCE CALLING

This feature allows you to talk to two people at the same time. Conference calling is a network—dependent feature.



**Note:** Check with your service provider to make sure this service is available in your network.

- 1 Make a call to the first participant as usual.
- 2 When you are ready to place a call to the next party, press **Options > New call**.
- 3 Enter the number and press the **Send** key.

OR

Press **Search** to recall the number from the phone book.

- 4 Press the **Send** key again to connect both parties.
- 5 To end the call, press the **End** key.

This action disconnects both parties.

## End calls

To end a conference call, that is, to disconnect with all callers, press the **End** key, or press **Options > End all calls**.

## Disconnect one party

If you wish to disconnect with the first party and remain connected to the second party, have the first party terminate the call on his/her end.

## • SEND OWN CALLER ID WHEN CALLING

This feature allows you to block caller ID when you call someone (your number will not be displayed on their caller ID). This feature may only be effective when calling a number equipped with caller ID.



**Note:** This feature is available only when supported by the wireless network and may not function if you are roaming.



**Important:** This feature works on a call-by-call basis. You must enable this feature each time you want to block the sending of your own number to the caller ID.

## Store feature codes

Before you can use the **Send own caller ID when calling** feature, you must store the feature codes for activating this feature. Once the code is stored in your phone, it is sent automatically to the network when you select this option from your phone menu.

- 1 Press **Menu 4-6-5** (**Settings** > **Network services** > **Network feature setting**).  
The **Feature code** field appears after a few seconds.
- 2 Enter the feature code your service provider gave you (for example, \*67 for activating **Send own caller ID when calling**), and press **OK**.
- 3 Scroll to **Send own caller ID when calling** and press **Select**.
- 4 Select **No** to assign the activation code.

## Place a call without sending your number

- 1 Press **Menu 4-6-4** (**Settings** > **Network services** > **Send own caller ID when calling**).
- 2 Scroll to **No**, and press **Select**.
- 3 Enter the desired phone number, and press **OK**.

OR

Press **Search** to recall a phone number from the phone book.

The phone automatically inserts the feature code into the dialing string and dials the phone number. The person you are calling cannot see your phone number on their caller ID.

## • USE AUTOMATIC REDIAL

There are times when you may not be able to place a call (for example, during high-traffic volume on the wireless network). When the wireless network is busy or unavailable, **Automatic redial** instructs your phone to retry the call.

### ACTIVATE AUTOMATIC REDIAL

- 1 Press **Menu 4-1-2** (**Settings** > **Call settings** > **Automatic redial**).
- 2 Scroll to **On** and press **Select**.

If the system is busy, your phone makes three additional call attempts. If you want to stop the automatic redial process before the last attempt, press the **End** key.



**Important:** This feature does not automatically retry a number when the number you are calling is busy.

## • CALLING CARD

If you wish to use a calling card for long distance calls, you can first save your calling card information into your phone. Your phone is equipped to handle up to four calling cards.

### Save card information

- 1 Press **Menu 4-1-7 (Settings > Call settings > Calling card)**.
- 2 Enter your security code, and press **OK**.  
For more information on security codes, see "Security code" on page 54.
- 3 Scroll to one of the four memory locations, and press **Options**.
- 4 Scroll to **Edit**, and press **OK**.
- 5 Select **Dialing sequence**.

Dialing sequence	Use for cards that require you to:
Access number + phone number + card number	Dial the 1-800 access number, phone number, and card number (+ PIN if required).
Access number + card number + phone number	Dial the 1-800 access number, card number (+ PIN if required), and phone number.
Prefix + phone number + card number	Dial the prefix, phone number, and card number (+ PIN if required).

- 6 Scroll to one of the three sequence types and press **Select**.
- 7 Enter the required information (access number or prefix and card number).
- 8 Press **OK** to confirm your entries and press **OK** to save your changes.
- 9 Scroll to **Card name**, press **Select**, enter the card name, and press **OK**.



**Note:** This procedure might not work with all calling cards. Please look at the back of your calling card or contact your long distance company for more information.

### Choose a calling card

Use **Menu 4-1-7 (Settings > Call settings > Calling card)** to select a calling card to use. You will be required to enter your security code.

### Make calling card calls

After you have saved your calling card information in your phone, you can make a call using your calling card.

- 1 Enter the phone number, including any prefix (such as **0** or **1**) that your calling card may require when you make a calling card call. See your calling card for instructions.
- 2 Press and hold the **Send** key for a few seconds until your phone displays **Card call**.  
Your phone displays **Wait for tone**, and press **OK**.
- 3 When you hear the tone or system message, press **OK**.
- 4 Your phone displays **Wait for tone**, press **OK again**.  
When you hear the tone or system message, press **OK**.

## • VOICE DIALING

You can dial up to 25 stored phone book numbers using the voice dialing feature. Before you can place a call using voice dialing, you must first assign a voice tag to the number. Before using voice dialing, note:

- Voice tags are not language—dependent. They are dependent on the speaker's voice.
- Voice tags are sensitive to background noise. Record them and make calls in a quiet environment.
- When recording a voice tag or making a call by saying a voice tag, hold the phone in the normal position near to your ear.
- Very short contacts are not accepted. Use long contacts and avoid similar contacts for different numbers.



**Important:** You must say the name exactly as you said it when you recorded it. This may be difficult in, for example, a noisy environment or during an emergency, so you should not rely solely upon voice dialing in all circumstances.

## Assign a voice tag

You must record a voice tag (up to two seconds) for a phone number before you can use the voice dialing feature to dial it.


### PHONE BOOK ENTRY

- 1 At the start screen, scroll to the desired phone book entry, and press **Details**.
- 2 Scroll to the phone number you want to tag and press **Options**.
- 3 Scroll to **Add voice tag** and press **Select**.  
The phone displays **Press Start**, and **speak after the tone**.
- 4 Press **Start**, and after the tone, speak the voice tag clearly into the phone microphone.



**Note:** Your phone informs you if the recording is not successful.

- 5 Press **OK** to try again or **Back** to return to phone book.

The message **Voice tag saved** is displayed upon completion of the recording process. The  icon next to a phone number denotes that a voice tag exists for this number.

### VOICE TAG NOTES

- The recording process stops automatically; press **Quit** to abort the recording attempt.
- Voice tags are sensitive to background noise. Record tags or use voice dialing in a quiet environment.
- Unique tags are recognized more accurately. Consider using first and last name or first name, last name, and number type when tagging a number.
- Avoid pauses or silence as you record the voice tag.
- If the voice tag memory is full, the phone displays **Delete an existing voice tag?** Press **OK**, scroll to locate a tag to delete, and press **Delete**.
- Deleting a phone number deletes any associated voice tags.



**Warning!** Do not use a voice tag for dialing emergency numbers. In emergencies, stress causes changes in your voice, which may keep the phone from recognizing your voice command.

## Dialing a number using voice dialing



**Note:** You must say the name exactly as you said it when you recorded it.

- 1 At the start screen, press and hold **Contacts** for two seconds.  
A tone is heard and **Please speak now** is displayed.
- 2 After the tone, clearly speak the voice tag that you recorded previously into the microphone.  
If the voice tag is not recognized by the phone or if you fail to speak a tag within three seconds after the tone, the message **Name not recognized** is displayed, and you are returned to the start screen.
- 3 When the voice tag is recognized,  
The phone book entry will be displayed on the screen for three seconds  
AND  
The voice tag is replayed (through the ear piece).  
After three seconds, the number is dialed.

The only other option for initiating voice dialing is to press the headset button momentarily at the start screen. The alert tones play through the headset.

Speak the voice tag into the headset microphone. The voice tag will playback through the headset to confirm your choice.

## Voice tags

You can listen to an existing voice tag (in case you forgot what you recorded), rerecord a voice tag, or delete an existing tag.

- 1 At the start screen, select **Contacts > Voice tags**.  
This option displays a list of only those contacts and numbers that have been assigned a voice tag.
- 2 Scroll to the phone number voice tag you want to edit, and press **Options**.
- 3 Scroll to either **Playback**, **Change**, or **Delete**.
- 4 If you choose **Change**, press **Start** to begin rerecording.  
The new tag that is recorded replaces the old information.

## • 1-TOUCH DIALING

When a phone number is assigned to one of the 1-touch dialing locations (2–9), you can call the phone number in either of the following ways:

- Press the number key that corresponds to a 1-touch dialing location and press the **Send** key.
- Press and hold the number key that corresponds to a 1-touch dialing location until the call is initiated.

The 1 key is preassigned to dial your voice mailbox number and cannot be reassigned.



## Assign a number

If you want to assign a number to one of the number keys (2–9), do the following:

- 1 Select **Contacts > 1-touch dialing**.
- 2 Scroll to the desired number key (2–9), and press **Assign**.  
If a phone number is already assigned to a key, the phone book entry name is displayed and the **Left soft key** is **Options**.
- 3 Enter the phone number manually, or press **Search** to locate a phone book entry.
- 4 Select the desired name or entry from the phone book.
- 5 If more than one number is stored for that entry, scroll to the desired number and press **Select**.

## Edit assigned numbers

You can change or delete (clear) numbers assigned to 1-touch dialing, or view the number assigned to a key from the 1-touch dialing menu.

- 1 Select **Contacts > 1-touch dialing**.
- 2 Scroll to a key that is assigned a number, and press **Options**.
- 3 Select **View number, Change, or Delete**.

## • CALLER GROUPS

You can group phone book entries using one of the existing categories (**Family, VIP, Friends, Business, and Other**). Each group has its own unique ringing tone and logo.

When you receive a call from a number assigned to a caller group, the ringing tone for that caller group is used, and the caller group's logo is displayed on the screen. This feature can help you identify incoming calls more quickly.

### ADD A NUMBER

- 1 At the start screen, scroll to the desired phone book entry, and press **Details**.
- 2 Scroll to the phone number you want to use, and press **Options**.
- 3 Select **Caller groups**.
- 4 Scroll to the desired caller group (for example, **Friends**), and press **Assign**.

### A RINGING TONE AND GRAPHIC

- 1 Select **Contacts**.
- 2 Scroll to one of the caller groups, and press **Options**.
- 3 Scroll to one of the following options and press **Select**:

Option	Description
Rename group	Renames the selected caller group.
Group ringing tone	Selects a ringing tone for this group. Scroll through the ringing tones, and press <b>OK</b> .
Group logo	Views, activates, or deactivates the group logo.
Group members	Assigns other phone book entries to the selected caller group.

## • TOUCH TONES

Touch tones (sometimes known as DTMF tones) are those tones produced when you press the keys on your phone keypad. You can use touch tones for many automated dial-up services such as banking and airlines or for entering your voice mailbox number and password.

Touch tones are sent during an active call. You can send them manually from your phone keypad, or send them automatically by saving them in your phone.

### Set manual options

You may customize the way your phone sends the touch tones for optimum performance with the system you are calling.

#### SET TYPE

- 1 Press **Menu 4-2-2-1** (**Settings > Phone settings > Touch tones > Manual touch tones**).
- 2 Select one of the following options, and press **Select**:

Option	Description
<b>Continuous</b>	Tone sounds for as long as you press and hold a key.
<b>Fixed</b>	Sends tones of the duration you specify in the <b>Touch tone length</b> option.
<b>Off</b>	Turns off tones. No tones are sent when you press a key.

#### SET FIXED LENGTH

You can specify touch tone length when using the **Fixed** option.

- 1 Press **Menu 4-2-2-2** (**Settings > Phone settings > Touch tones > Touch tone length**).
- 2 Scroll to **Short** (1 /10 second) or **Long** (1/2 second), and press **Select**.

### Send manually

Before you begin, make sure that **Manual touch tones** is not set to **Off**.

- 1 During a call to the automated service, select **Options**, scroll to **Touch tones**.
- 2 Enter the touch tone string from your phone keypad as required by the service you are calling, and press **Tones**.

### Send from phone book

You can save a touch tone string as a separate phone book entry, and recall and send the string using the in-call menu option **Touch tones**.

#### SAVE AS A PHONE BOOK ENTRY

Save the touch tone string (including any pause or wait characters that may be required) to a new entry in the phone book. For more information on saving contacts and number to your phone book see "Save contacts and numbers" on page 20.

#### RECALL FROM THE PHONE BOOK

- 1 During a call to the automated service, select **Options > Touch tones**.
- 2 Press **Search**, scroll to the touch tone string entry in your phone book, and press **OK**.
- 3 Press **Tones** to send the touch tones.

## Store with phone number

You can store touch tone strings (for example, voice mailbox number and PIN code) as a part of a phone book entry. Once the string is stored, it is sent automatically (instead of entering the touch tones from the keypad).

- 1 Enter the phone number of the automated service.
- 2 Use the **\*/+** key to enter a **w** or **p** after the number.
  - w** (wait)—The phone waits for you to press **Send**. When you press **Send**, the phone sends the touch tone string you have saved.
  - p** (pause)—The phone pauses for 2.5 seconds and automatically sends the touch tone string you've saved.
- 3 Enter the touch tone string after the **w** or **p** characters, as required by the service.

Example: 214-555-1234w1234#p5678#

- 4 Save this phone book entry as you normally would.

Once the touch tone string is stored with the phone number, you can now call the number and have the touch tone strings sent automatically.

## • LINK PHONE BOOK ENTRIES

This feature allows you to store a phone number in one phone book location and link it to another phone book entry.

For example, linking the phone number of an automated service (for example, automated banking service) with a touch tone string entry in your phone book (for example, account and PIN numbers) automatically recalls and sends the touch tone string when you call the service.

### OPTIONS

- 1 Store the touch tone string into your phone book.
- 2 Assign the phone book entry with the touch tones to a 1-touch dialing location (for example, location 3).
  - For more information, see "1-touch dialing" on page 49.
- 3 Edit the automated service's phone number by adding *+n* to the end of the phone number (where *n* is the 1-touch dialing location).

Example: 214-555-1234+3

- 4 Press **OK** to save your changes.
- 5 Dial the automated service's number from your phone book.

Your phone automatically sends the touch tones when the call connects.



**Important:** You may need to enter a pause (**p**) before the **+** in order to account for delays in the automated system answering your call (for example, 214-555-1234p+3).

## • VOICE RECORDER

**Voice recorder** allows you record audio memos and store them in your phone. Use this feature to record phone numbers and personal memos. Total time available for all memos is three minutes. Maximum length of a single message is one minute, up to 60 seconds.

The maximum number and length of remaining memos depends on how much memory is still available. A countdown timer is displayed while recording and shows remaining record time.

### Record a memo

- 1 Press **Menu 6-3-1 (Voice > Voice recorder > Record)**.
- 2 After the tone, begin recording your memo; when you finish recording, press **Stop**.
- 3 Enter the subject of the voice memo, and press **OK**.  
OR  
Press **Back** (instead of entering a subject) to discard the memo without saving.  
Press **OK** without entering a subject to assign the default name (**Recording**) to the memo.

### Options

- 1 Press **Menu 6-3-2 (Voice > Voice recorder > Recordings list)**.
- 2 Scroll through the list of memos, and press **Options**. The following options are available:

Option	Description
<b>Playback</b>	Plays back the message through the earpiece (phone or headset).
<b>Delete</b>	Deletes selected voice memo.
<b>Edit title</b>	Edits the memo of the subject or renames the memo.
<b>Add alarm / Alarm</b>	Adds (edits or removes) a reminder alarm for the memo.

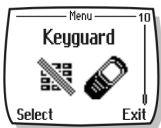
An incoming call interrupts voice memo playback. When the call is complete, the phone returns to the **Options** menu for the selected voice memo.

An incoming call stops voice memo recording. The recorded memo is automatically saved with the default name.

## 12 Security and System settings



**Warning!** Do not switch on the phone when wireless phone use is prohibited or when it may cause interference or danger.



Your phone has a variety of security features that help prevent some of the following:

- Placing accidental or unintentional calls
- Unauthorized use of your phone
- Placing and accepting calls from certain phone numbers
- Accidental erasing of information or restoring factory settings


### • LOCK KEYPAD (KEYGUARD)

With keypad lock (Keyguard) you can temporarily lock your phone keypad and prevent the accidental placing of calls or pressing of the keypad (for example, when the phone is in your pocket or in your purse).

Press **Menu 10**, to activate Keyguard. You can also press **Menu**, followed by **\*/+** (within 3 seconds), to activate Keyguard. It is possible to answer a call, even though Keyguard is activated. Press the **Send** key to answer the call. When the call has ended, the keypad remains locked.

Press **Unlock**, followed by **\*/+** (within 3 seconds), to deactivate Keyguard and unlock your phone keypad.



**Important:**  appears at the top of the display. The left softkey is also labeled **Unlock**.



**Important:** When the phone is locked, calls may be possible to the emergency number programmed into your phone (for example, 911 or other official emergency number).

### • SECURITY CODE

Your phone prompts you for a five-digit *security code* for certain features and commands. Access is granted only after the correct security code has been entered successfully.

The default security code is 12345. It is recommended that you change this code at once, write it down, and store it in a safe place away from your phone.

You can delete the last entered digit by pressing **Clear** (or by pressing and holding **Clear** to delete all the digits more quickly). Enter the correct code or press **Back** to exit. If you enter an incorrect security code, **Code error** will appear five times in a row, and your phone will not accept any entries for the next five minutes.

### Change your security code

- 1 Press **Menu 4-5-4-4** (**Settings > Security settings > Access codes > Change security code**) and press **Select**.
- 2 Enter the existing (or default) security code, and press **OK**.

- 3 Enter the new five-digit security code, and press **OK**.
- 4 Reenter the new five-digit security code for verification, and press **OK**.

Your phone displays the confirmation message **Security code changed**.



**Important:** If you change your security code and do not remember the new code, contact your service provider. Once you change your security code, the default code is no longer valid.

## • PHONE LOCK

This feature protects your phone from unauthorized outgoing calls or unauthorized access to information stored in the phone. When phone lock is activated, **Phone locked** is displayed each time you turn your phone on or off.

After pressing either **Contacts** or **Menu**, you must enter your lock code. Once your lock code has been accepted, your phone will function normally.



**Important:** **Call not allowed** is displayed if you attempt to place a call while phone is locked.



**Important:** When the phone is locked, calls may be possible to the emergency number programmed into your phone (for example, 911 or other official emergency number).

### Lock code

In addition to a security code, your phone also has a *lock code*. You will need the lock code to activate and deactivate the phone lock feature, or to change your lock code.

The default lock code is 1234. If you enter an incorrect lock code five times in a row, your phone will prompt you for the security code. For more information, see "Security code" on page 54.

### CHANGE THE LOCK CODE

- 1 Enter **Menu 4-5-4-3** (**Settings** > **Security settings** > **Access codes** > **Change lock code**) and press **Select**.
- 2 Enter the current (or default) lock code and press **OK**.
- 3 Enter the new lock code and press **OK**.
- 4 Reenter the new lock code for verification, and press **OK**.



**Important:** When you change your lock code, make sure you store it in a safe place, away from your phone. Avoid entering access codes similar to emergency numbers to prevent accidental emergency calls.

### ACTIVATE AND DEACTIVATE PHONE LOCK

- 1 Press **Menu 4-5-4-1** (**Settings** > **Security settings** > **Access codes** > **Phone lock**).
- 2 Enter the lock code, and press **OK**.
- 3 Select **On** or **Off**.
- 4 Turn your phone off and back on to complete the phone lock activation (or deactivation).

### ANSWER A CALL

Press the **Send** key or **Answer**.

## ALLOWED NUMBER

When phone lock is on, the only outgoing calls that can be made are to the following numbers:

- The emergency number programmed into your phone (for example, 911 or other official emergency number).
- The number stored in the **Allowed number when phone locked** location.

## Store the unlocked number

- 1 Press **Menu 4-5-4-2** (**Settings > Security settings > Access codes > Allowed number when phone locked**).
- 2 Enter the lock code and press **OK**.
- 3 Enter the phone number (or press **Search** and recall the number from the phone book), and press **Select**.

## Call the allowed number

At the start screen, press up scroll or down scroll key to display the number. Press the **Send** key to place the call.



**Important:** Phone lock must be activated to use this feature.

## • CALL RESTRICTIONS

This feature allows you to restrict incoming and outgoing calls. You can restrict all calls or create a custom list of numbers to restrict.

When you select either **Restrict outgoing calls** or **Restrict incoming calls** from the **Security settings** options, your options are as follows:

- **Select**—Used to display a list of all available restricted numbers. Select those numbers you want to restrict from this screen.
- **Add restriction**—Used to create your own list of restricted numbers.

Once you have added at least one restriction to either the outgoing or incoming calls list, the following options become visible:

- **Edit**—Used to edit an existing outgoing call restriction
- **Delete**—Used to delete call restrictions from the list



**Important:** When calls are restricted, calls may be possible to the emergency number programmed into your phone (for example, 911 or other official emergency number).

## Add a call restriction

You can add up to 10 restrictions for outgoing calls and 15 restrictions for incoming calls. The maximum number of characters you can enter for each restriction is 15.

- 1 Press **Menu 4-5-3** (**Settings > Security settings > Call restrictions**).
- 2 Enter the security code and press **OK**.
- 3 Select **Restrict outgoing calls** or **Restrict incoming calls > Add restriction**.

- 4 Enter the number string you wish to restrict and press **OK**.

For example:

If you wish to restrict all calls that begin with 1, enter 1.

If you wish to restrict all calls that begin with 1972, enter 1972.

If you wish to restrict all calls that begin with 214, enter 214.

- 5 Enter a name to identify this restriction, or press **OK**.



**Note:** When creating a new restriction, that restriction is automatically selected (enabled) at the time it is saved.

## Select call restrictions

- 1 Press **Menu 4-5-3 (Settings > Security settings > Call restrictions)**.
- 2 Enter your security code and press **OK**.
- 3 Scroll to **Restrict outgoing calls** or **Restrict incoming calls** and press **Select**.
- 4 Scroll to **Select** and press **Select**.
- 5 Scroll to each restriction you wish to use and press **Mark**.  
Press **Unmark** to deactivate existing restrictions.
- 6 Press **Done**, and press **Yes** to save the changes you have made.

## Edit call restrictions

You can edit the name or number of an entry in the call restrictions list.

- 1 Press **Menu 4-5-3 (Settings > Security settings > Call restrictions)**.
- 2 Enter your security code and press **OK**.
- 3 Select **Restrict outgoing calls** or **Restrict incoming calls > Edit**.
- 4 Select the restriction you wish to edit.



**Note:** If no name has been entered for a restriction, the restricted number will be displayed.

- 5 Edit the number (as needed), and press **OK**.
- 6 Edit the name (as needed), and press **OK**.

## Erase call restrictions

You may want to delete a restriction that is no longer needed.

- 1 Press **Menu 4-5-3 (Settings > Security settings > Call restrictions)**.
- 2 Enter your security code and press **OK**.
- 3 Select **Restrict outgoing calls** or **Restrict incoming calls > Delete**.
- 4 Scroll to the restriction you wish to delete, and press **OK**.







## • GPS (LOCATION PRIVACY)

The GPS feature allows the phone to share position information over the network. For calls to emergency numbers, this position information may be used by the emergency operator to determine the position of the phone. The functionality of this feature is dependent on the network, satellite systems and the agency receiving the information. It may not function in all areas or at all times. The user can enable or disable the GPS feature for non-emergency calls by accessing the **Location privacy** feature in the phone.

### ENABLE OR DISABLE GPS (LOCATION PRIVACY)

1 Press **Menu 4-1-1 (Settings > Call settings > Location privacy)**.

2 Select either **Emergency** or **Share location**.

The profile selected in the **Location privacy** menu, is shown on the lower right part of the screen. The default profile is **Emergency**. When **Emergency** is selected, the location information is shared only during an emergency call to the official emergency number programmed into your phone. Depending on which network provides your phone service, the phone screen displays  or  in the upper left hand corner. When **Share location** is selected, the location information is shared with the network whenever the phone is powered on and activated. Depending on which network provides your phone service, the screen displays  or  in the upper left hand corner.



**Note:** Location information will always be shared with the network during emergency calls to the official emergency number programmed into the phone, regardless of which setting is selected. After placing an emergency call the phone remains in emergency mode for five minutes. During this time, the location information will be shared with the network. For more information on emergency calls, see "Emergency calls" on page 73.

## • AUTOMATIC UPDATE OF SERVICE

Your phone updates to wireless services sent by your service provider. Use **Menu 4-1-5 (Settings > Call settings > Auto-update of service)** to turn this feature on or off.

## • SYSTEM SELECTION

The **System** menu **Menu 4-7 (Settings > System)** allows you to customize the way your phone chooses a system in which to operate while you are within or outside of your primary or home system.

Your phone is set to search for the most cost-effective system. If your phone cannot find a preferred system, it selects a system automatically based on the option you choose in the **System** menu.



**Important:** Before selecting an item in the **System** menu, contact your service provider to find out how your selection will affect your service charges.

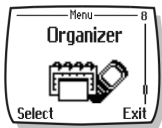
## Roaming options

The menu options you see in your phone are based on your service provider's network. Their network determines which options actually appear in the phone menu. The following is a description of the options that may appear in your phone:

**Home only**—You can make and receive calls in your home area only. While roaming, **No Service** appears, and you cannot make or receive calls.


**Automatic**—Your phone automatically selects the best available system.

## 13 Organizer



Your phone has a calendar, alarm clock, stopwatch, and contact database—everything you need in an organizer or personal digital assistant.

### • ALARM CLOCK

Your phone alarm clock can be set to sound an alarm at a time you specify. The alarm clock uses the clock time format (12 or 24-hour format). The  icon, displayed on the start screen, indicates that an alarm is set. The alarm clock will work, regardless if the phone is on or off.



**Important:** The alarm clock works in conjunction with your phone clock. Make sure the time and date are correct before using this feature.

### Set the alarm

- 1 Press **Menu 8-1 (Organizer > Alarm clock)**, and press **Select**.
- 2 Enter the alarm time, and press **OK**.
- 3 Select **am** or **pm**, and press **OK**.

### Respond to an alarm

At the time of the alarm, the phone sounds an alert tone, displays an animated message, and flashes its lights.

Press **Stop** or the **End** key to stop the alarm from sounding, and return to the start screen.

### ENABLE SNOOZE

- 1 Press **Menu 8-1 (Organizer > Alarm clock)**, and press **Select**.
- 2 Press the **Snooze** soft key.
- 3 Press any key (except the **End** key or **Stop**).
- 4 Allow the alarm to sound for one minute.

Once snooze is enabled, the alarm will sound again in 10 minutes.

### Alarm when phone is off

If the alarm time is reached while the phone is switched off, the phone switches itself on and starts sounding the alarm tone. If you press **Stop**, the phone asks whether you want to activate the phone for calls. Press **No** to switch off the phone or **Yes** to make and receive calls.



**Warning!** Do not press **Yes** when wireless phone use is prohibited or when it may cause interference or danger.

### • CALENDAR



**Warning!** Your phone must be switched on to use the calendar feature. Do not switch on the phone when wireless phone use is prohibited or when it may cause interference or danger.

You can use your phone calendar to record notes to remind you of appointments such as meetings, phone calls, birthdays, or general reminders. Alarms can also be set to notify you of your appointments or notes.

You can also use the DKU-5 cable in conjunction with Nokia PC Suite to synchronize your PIM application calendar with your phone calendar, keeping you up-to-date when you are away from you office or PC.

## Add a note

Predictive text input is available for calendar notes.

- 1 From the day list view, scroll to the desired day and press **Options**.
- 2 Select **Make a note**.
- 3 Scroll to one of the following note types and press **Select**:
  - Meeting**—Enter the note (or select **Search** to recall a name from the phone book) and press **OK**. Enter the time and press **Options**.
  - Call**—Enter the desired phone number (or select **Options** > **Search** to recall it from phone book) and press **OK**. Enter the time and press **OK**.
  - Birthday**—Enter the person's name (or press **Options** > **Search** to recall it from phone book) and press **OK**. Select **Options** > **Save** and enter date of birth and year (optional). Press **OK**.
  - Memo**—Enter the note. Select **Options** > **Save**. Enter a date for the memo, and press **OK**.
  - Reminder**—Enter the note. Select **Options** > **Save** > **Alarm on, Alarm off**.
- 4 Scroll to the desired alarm option, and press **Select**.

The presence of an alarm is indicated by  when you view the notes.

### NOTE ALARM

The phone flashes its lights, beeps, and displays the note. When a call note is displayed, you can call the number by pressing the **Send** key.

To stop the alarm, press **Exit** or the **End** key.

## • CALCULATOR

You can use your phone calculator to add, subtract, multiply, or divide numbers and convert currencies.



**Warning!** Your phone must be switched on to use this function. Do not switch the phone on when wireless phone use is prohibited or when it may cause interference or danger.

- 1 From the **Organizer** menu, select **Calculator**.
- 2 Enter the first number in the calculation (press **#** for decimal point).
- 3 To add, press **\*/+** once (+ appears); to subtract, press **\*/+** twice (-); to multiply, press **\*/+** three times (\*); to divide, press **\*/+** four times (/).  
OR  
Select **Options** > **Add, Subtract, Multiply, Divide, Square, or Square root**, and press **Select**.

- 4 Enter the second number.  
Repeat steps 3 as many times as necessary.  
A subtotal is shown after you enter the next operand (+, -, \*, or /).
- 5 For a total, press **Options** twice.
- 6 To start a new calculation, press and hold **Clear** for 2 seconds.



**Note:** This calculator has limited accuracy and rounding errors may occur, especially in long divisions.

## • STOPWATCH

You can use your phone **Stopwatch** feature to time an event in hours, minutes and seconds. The event time can be saved, viewed, or deleted.



**Warning!** Your phone must be switched on to use this function. Do not switch the phone on when wireless phone use is prohibited or when it may cause interference or danger.



**Important:** Using the stopwatch consumes the battery and the operating time of the phone will be reduced. Be careful not to let it run in the background when performing other operations with your phone.

### Split timing

The split time function allows you to measure the total time for an event, yet allows you to capture the elapsed time at various intervals. To measure split time:

From the **Organizer** menu, select **Stopwatch > Split timing > Start**.

The elapsed time appears on the display.

Once the split timer has started, the following options are available:

- Press **Split** to display the split time while the timer continues to display elapsed time.
- Press **Stop** to stop the timer and view the total elapsed time.

If you continue pressing **Split**, the most recent split time appears at the top of the list of split times. You can scroll to review previous times.

### Timing options

Once you have stopped timing an event (using lap or split), you have the option to save the information, reset the stopwatch, or continue timing (split timing only).

While stopwatch is running, press **Stop > Options** and select one of the following:

- **Save** saves the current timing data. Enter a name, and press **OK**.
- **Reset** clears the current timing data and resets the timer.
- **Start** restarts the split timer from the point the timer was stopped.

## Lap timing

The lap time function allows you to measure the amount of time it takes to complete a cycle or lap. To measure lap time:

Select **Organizer > Stopwatch > Lap timing > Start**.

The running time appears on the display.

Once the lap timer has started, you can:

- Press **Stop** to stop the timer and view the elapsed time.
- Press **Lap** to display the lap time; the timer restarts from zero.

If you continue pressing **Lap**, the most recent lap time appears at the top of the list of lap times. You can scroll to review previous times.

Press **Stop** to stop the timer. The final lap time is displayed.

## Stopwatch options

You can choose the following options from the **Stopwatch** menu:

Option	Description
<b>Continue</b>	Redisplays the active timer (for example, if you receive a call while the timer is still running).
<b>Show last time</b>	Allows you to view the last measured time.
<b>View times</b>	Allows you to view the list of saved times.
<b>Delete times</b>	Allows you to delete the saved times. You can delete the saved times one by one or all at once.



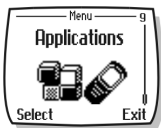
**Note:** If you receive a call while using the stopwatch, the timer continues running in the background. After ending the call, you can redisplay the timer by doing the following:

Press **Menu 8-5-1 (Organizer > Stopwatch > Continue)**. Press **Select**.

## 14 Applications



**Important:** Your phone must be switched on to use this function. Do not switch the phone on when wireless phone use is prohibited or when it may cause interference or danger. This feature shares memory space with other features. For more information, see "Memory use" on page 11.



**Note:** Applications is a network-dependent feature. Check with your local service provider to subscribe to and use this feature.

This menu allows the management of Java™ applications installed on your phone or downloaded from your PC using Nokia PC Suite. Your phone software may include Java applications designed for your Nokia phone. Some service providers offer other applications via mobile Internet services.

### • LAUNCH AN APPLICATION

- 1 Press **Menu > Applications > Select app.**, scroll to an application (name depends on the application) and press **Options**.
- 2 Select **Open**.

If the selection is a single application it will launch. Otherwise, a list of applications is displayed corresponding to the selected application set. Scroll to the desired application and press **Select**. The application launches.

If an application uses the whole display area, no contacts are displayed. Press one of the soft keys to show the options list. Then select one of the options or press **Back** to continue with the application.

### • OPTIONS AVAILABLE FOR APPLICATIONS

- **Delete**—deletes the application or application set from the phone.
- **Check version**—checks if a new version of the application is available for download from the mobile Internet services.
- **Details**—gives additional information about the application.



**Note:** Check version and Internet link may not be available for all applications.

### • DOWNLOAD A NEW APPLICATION

You can use the Internet to download Java applications to your PC; and use the Java installer from PC Suite to download the applications in your phone.



**Note:** Nokia does not provide any warranty for Nokia applications other than those that belong to Nokia. If you choose to download and install an application, you should take the same precautions, for security or content, as you would with any Internet site.

Memory status allows you to view memory that is available for applications. Press **Menu > Applications > Memory**. You will see the amount of **Free memory** and the **Total memory**. This will vary according to the number of applications you have installed.

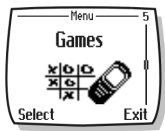
## 15 Games



**Warning!** Your phone must be switched on to use this function. Do not switch the phone on when wireless phone use is prohibited or when it may cause interference or danger.

You can use your phone not only for communication but also for some serious fun. Your phone offers you four games from which to choose.

- In **Snake II**, you feed the snake with as many goodies as possible. The longer the snake's tail grows, the higher your score is.
- In **Space Impact II**, you try to destroy the falling asteroids before they destroy you.
- In **Bumper**, you can play an exciting game of pinball. Increase your score by keeping the ball on the table using the flippers.



### Two-way scrolling

Your phone supports two-way scrolling while playing the games:

- Use **2** to scroll **up**. Use **8** to scroll **down**.
- Use **4** to scroll **left**. Use **6** to scroll **right**.

### Start a new game

- 1 Press **Menu 5-1 (Games > Select game)**, scroll to the desired game, and press **Select**.
- 2 Choose an option and press **Select**.

### Options

Use the option **Instructions** to learn how to play the game. With the option **Level** you can choose the difficulty level of the game.

In **Snake II** you can pause the game by pressing either soft key and resume a paused game with **Continue**. Use **Top score** (available in some games) to check the high score in your phone.

### Settings

The following settings are available for all games:

**Game sounds**—Turns game sound effects **On** or **Off**.

**Game lights**—Turns screen lights **On** or **Off** during game play only.

**Shakes**—Turns game vibrating effects **On** or **Off**.



## 16 Your phone and other devices

If interacting with, or connecting to a computer using the DKU-5 serial cable, your phone can exchange information with other desktop and laptop PCs. Your phone can also function as a wireless modem when connected to PCs.



**Warning!** Your phone must be switched on to use this function. Do not switch the phone on when wireless phone use is prohibited or when it may cause interference or danger.

### • PC CONNECTIVITY

You can make a serial connection between your Nokia phone and compatible PC using the DKU-5 serial cable. This cable is available for purchase as an enhancement or may be included in your sales package. Once your phone and PC are connected, you can access phone information from your PC, or use your phone as a wireless modem for digital data/fax calls.

When your phone is connected to your PC, you can use Nokia PC Suite to:

- Make a backup copy of the data in your phone (Nokia Content Copier).
- Edit phone book contacts and numbers, profiles, and settings using your PC keyboard (Nokia Phone Editor).
- Synchronize your phone book and reminders with personal information manager (PIM) applications such as Microsoft Outlook, Outlook Express, and Lotus Organizer (PC Sync).

Please refer to the document, *Nokia PC Suite User Guide and PC/PDA Connectivity Guide*, for installation and setup instructions.

You can use your Nokia phone as a modem with your laptop computer or handheld device, to access the Internet (for e-mail and Web browsing) or corporate networks.

For more information refer to *Nokia PC Suite User Guide and PC/PDA Connectivity Guide*.

### Download software

Nokia PC Suite, the Nokia PC Suite/PC connectivity user guide, and all related software is provided to you free of charge. These items can be downloaded from the US mobile phone products section at:

<http://www.nokia.com/us>

## 17 Minibrowser



**Warning!** Your phone must be switched on to use this function. Do not switch the phone on when wireless phone use is prohibited or when it may cause interference or danger.



**Important:** This feature is available only if your service provider's network supports mobile internet access. Your service provider may also require that you subscribe to this additional service. For more information, contact your service provider.

The **minibrowser** feature allows you to access special Internet content designed specifically for viewing from your mobile phone. The browser menu allows you to save addresses of Web sites as bookmarks, so you can return to your favorite sites quickly and easily.

### • BROWSE SESSIONS AND INDICATORS

When you launch the minibrowser, two icons appear on the screen status bar:



Minibrowser icon (you are in a minibrowser session)



Active call icon (you are being billed accordingly)



High-speed data indicator (you are connected to high-speed data network)

The minibrowser disconnects from the network after inactivity. This function minimizes your bill. You may be billed for several network connections in a single session. You can still access pages stored in memory without the connection. If you navigate to a page not stored in memory, a new connection is established and you will be billed accordingly.

### • LAUNCH THE MINIBROWSER

The first time you launch the minibrowser, you go through a security setup process that takes three to five minutes (follow the on-screen prompts).

- 1 Select **Menu > Minibrowser > Connect**.

A message appears, reminding you that you may be billed for the connection time. (You can disable this message. See "Disable minibrowser confirmations" on page 70.)

- 2 Press **Yes**.

After a few seconds, the **Home Page** appears. Your menu may vary according to your service provider.

You can also launch the minibrowser by pressing and holding the **0** key from the start screen.

#### Home Page

- 1 **News**
- 2 **Yahoo**
- 3 **Weather**
- 4 **Finance**
- 5 **Web site**

To end a minibrowser session, press and hold the **End** key.

## • MINIBROWSER MENU

While browsing, press and release the power key to display the **minibrowser** menu:

**Reload**—Reloads information for current page.

**Home**—Returns you to the Home page.

**Bookmarks**—Displays a list of bookmarks you have saved.

**Bookmark site**—Used to save a bookmark for the current page.

**Version**—Displays information about the minibrowser software version and developers.

**Advanced**—Displays several advanced browser options.

**Downloads**—Views or accesses downloaded ringing tones.

**Exit browser**—Exits the minibrowser and ends your browsing session.

**Switch off!**—Turns the phone off.

## • NAVIGATE IN THE MINIBROWSER

- 1 Scroll through the menus and contents of a page.

Press the scroll up or scroll down keys to move through menus or the contents of a page (contents may not fit on one screen). To scroll quickly, press and hold the scroll key.

- 2 To go back to a previous page, press the **End** key.

Press the **End** key repeatedly to move back through previously viewed pages until the **Home Page** appears.

OR

Press **⓪** to display the **Minibrowser** menu, scroll to **Home**, and press **OK**.

- 3 Select or open an item (for example, a link).

Press the appropriate number key on the phone keypad (if the item on the page is numbered),  
OR

Scroll to the item, and press the appropriate soft key (for example, to select or open a link).

- 4 To navigate to different screens or select special functions, use the soft keys.

The function of each soft key can change with each page and depends on each highlighted item.

## • LINKS

Links usually appear as items in a numbered list. When activated, a link will take you to another page or site or make a phone call if the sites support this feature. When you make a call, the connection terminates and the page you were viewing is stored in memory. When you end the call, that page is displayed again. To activate a link, highlight the link and press the appropriate soft key. (If the link is a phone number, in some cases, you can also press the talk key to make the call.)

## • BOOKMARKS

You can create a bookmark for a page so that you can quickly return to that page later. You may also be able to create bookmarks using your personal account at your service provider's web site.

### BOOKMARK A PAGE

- 1 Go to the page for which you want to set a bookmark.
- 2 Press the power key to access the minibrowser menu.
- 3 Select **Bookmark page**.

A message may appear asking you to confirm this action.

### A BOOKMARKED PAGE

- 1 From the **Home Page**, **Bookmarks > OK**.

A list of your bookmarks appears.

- 2 Scroll to the bookmark you want to use, and press **Select**.

**Tip:** The first ten bookmarks are assigned to keys 1–0. Press and hold the number associated with the desired bookmark to go to the bookmarked site at any time during a browser session.

## • RECEIVE MESSAGES USING THE MINIBROWSER

Depending on your service provider, you may be able to receive text messages through the minibrowser. Unlike SMS text messages, minibrowser messages are not stored in the phone and must be accessed through the minibrowser homepage.

### New message alert

When a new minibrowser message is received, the  icon appears in the status bar.

Depending on the message priority, you may also hear an alert tone and/or see **New message from** displayed on your screen.

- If you receive the message while browsing, press **View** to read the message or **Skip**, allowing you to view the message later.
- If you receive the message while the phone is idle, press **Connect** to launch the browser and view the message, or press **Back** to return to the start screen.

You can use the **Minibrowser messages** menu **Menu 01-3 (Messages > Minibrowser messages)** to read your messages at a later time.

### Message

You can receive minibrowser messages containing Web links. If you receive a message containing a link, select **Use Web link** from the message **Options** menu to open the link and go to the Web site.

You can also receive Web links in standard SMS messages. Selecting **Use Web link** from the message **Options** menu launches the minibrowser and takes you to the link Web site.

- **END THE MINIBROWSER SESSION**

Press and hold the **End** key.

OR

Press the **Power** key, and select **Exit browser > OK**.

- **DISABLE MINIBROWSER CONFIRMATIONS**

You can specify whether or not you want your phone to display confirmation messages when you begin or end a browser session.

To modify minibrowser confirmations settings:

- 1 Press **Menu 4-1-6 (Settings > Call settings > Minibrowser confirmation)**. The following options appear:
  - Both**—Confirmation required before connecting to the Internet, and before you terminate a browser session.
  - None**—No confirmation notes are displayed.
  - On connection**—Phone asks you to confirm your awareness to possible charges incurred for Internet access.
  - On exit**—Phone asks you to confirm your wish to end browsing.
- 2 Scroll to the appropriate option, and press **OK**.
- 3 Press and hold the **End** key to end the minibrowser session without confirmation (regardless of the minibrowser confirmation setting).

## 18 Reference information

### • USE ENHANCEMENTS SAFELY

This section provides information about the phone's batteries, enhancements, and chargers. Be aware that the information in this section is subject to change as the batteries, chargers, and enhancements change.

This phone is intended for use when supplied with power from an ACP-7U, ACP-8U, ACP-12U, or LCH-9 charger. Other usage could invalidate any approval given to this apparatus and may be dangerous.



**Warning!** When you purchase batteries, chargers, and enhancements for your phone, use *only* batteries, chargers, and enhancements that have received approval from Nokia. The use of any other type may invalidate any approval or warranty applying to the phone, and could also be dangerous. For availability of approved batteries, chargers, and enhancements, check with your service provider.



**Note:** For information on how to charge and recharge your battery, please see "Charge" on page 8.

When the battery is fully charged, the indicator will tell you that the battery is fully charged.

When you are not using a charger, disconnect it from the power source. Do not leave the battery connected to a charger for more than 72 hours, since prolonged maintenance charging could shorten its lifetime. If left unused, a fully-charged battery will discharge over time.

Temperature extremes can affect the ability of your battery to charge. Therefore, allow it to cool down or warm up before trying to charge it.

When the battery is running out of power and your phone only has a few minutes of talk time remaining, a warning tone sounds and the **Battery low** message appears briefly. When no more talk time is left, a warning tone is sounded and the phone switches itself off.

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 and 77°F (15°C and 25°C). A phone with a hot or cold battery may temporarily not work, even when the battery is fully charged. Battery performance is particularly limited in temperatures below freezing.

Do not dispose of batteries in a fire!



**Warning!** Use only your hands to remove the battery. Do not puncture, burn or use any objects that may damage the phone or the battery. Please recycle the battery, or dispose of properly.

### • IMPORTANT SAFETY INFORMATION

This section provides additional safety information. A brief overview of safety can be found in the section.

#### Traffic Safety

Do not use a handheld telephone while driving a vehicle. 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.

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.

Use the phone only in its normal operating positions.

## Electronic devices

Most modern electronic equipment is shielded from radio frequency (RF) signals. However, certain electronic equipment may not be shielded against the RF signals from your wireless phone.

### PACEMAKERS

Pacemaker manufacturers recommend that a minimum separation of at least 6 inches (approximately 15.3 cm) be maintained between a handheld wireless phone and a pacemaker to avoid potential interference with the pacemaker. These recommendations are consistent with the independent research by and recommendations of Wireless Technology Research.

Persons with pacemakers:

- Should always keep the phone more than 6 inches (15.3 cm) from their pacemaker when the phone is switched on
- Should not carry the phone in a breast pocket
- Should use the ear opposite the pacemaker to minimize the potential for interference.
- Switch off the phone immediately if you have any reason to suspect that interference is taking place.

### HEARING AIDS

Some digital wireless phones may interfere with some hearing aids. In the event of such interference, you may want to consult your service provider.

## Other medical devices

Operation of any radio transmitting equipment, including cellular phones, may interfere with the functionality of inadequately protected medical devices. Consult a physician or the manufacturer of the medical device to determine if they are adequately shielded from external RF energy or if you have any questions. Switch off your phone in health care facilities when any regulations posted in these areas instruct you to do so. Hospitals or health care facilities may be using equipment that could be sensitive to external RF energy.

## Vehicles

RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles (for example, electronic fuel injection systems, electronic antiskid/antilock braking systems, electronic speed control systems, air bag systems). Check with the manufacturer or its representative regarding your vehicle. You should also consult the manufacturer of any equipment that has been added to your vehicle.

### POSTED FACILITIES

Switch your phone off in any facility where posted notices so require.

## Potentially explosive atmospheres

Switch off your phone when in any area with a potentially explosive atmosphere and obey all signs and instructions. Sparks in such areas could cause an explosion or fire resulting in property and/or bodily injury or even death.

Users are advised to switch off the phone when at a refuelling 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.

Areas with a potentially explosive atmosphere are often but not always clearly marked. They include below deck on boats; chemical transfer or storage facilities; vehicles using liquefied petroleum gas (such as propane or butane); areas where the air contains chemicals or particles, such as grain, dust, or metal powders; and any other area where you would normally be advised to turn off your vehicle engine.

## Vehicles

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

Check regularly that all wireless phone equipment in your vehicle is mounted and operating properly.

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

For vehicles equipped with an air bag, remember that an air bag inflates with great force. Do not place objects, including both installed and portable wireless equipment in the area over the air bag or in the air bag deployment area. If in-vehicle wireless equipment is improperly installed and the air bag inflates, serious injury could result.

FCC regulations prohibit using your phone while in the air. Switch off your phone before boarding an aircraft. The use of wireless telephones in an aircraft may be dangerous to the operation of the aircraft, disrupt the wireless telephone network, and may be illegal.

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

## Emergency calls



**Important:** This phone, like any wireless phone, operates using radio signals, wireless, and landline networks as well as user-programmed functions. Because of this, connections in all conditions cannot be guaranteed. Therefore you should never rely solely upon any wireless phone for essential communications (for example, medical emergencies).

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

## Make an Emergency Call

- 1 If the phone is not on, switch it on.
- 2 Press the end key as many times as needed (for example, to exit a call, to exit a menu, etc.) to clear the display and ready the phone for calls.
- 3 Enter the emergency number for your present location (for example, 911 or any other official emergency number—emergency numbers vary by location).
- 4 Press the talk key.
  - If certain features are in use, you may first need to turn those features off before you can make an emergency call. Consult this user guide 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 wireless phone may be the only means of communication at the scene of an accident - do not end the call until given permission to do so.



- **CERTIFICATION INFORMATION (SAR)**

THIS MODEL PHONE MEETS THE GOVERNMENT'S REQUIREMENTS FOR EXPOSURE TO RADIO WAVES.

Your wireless phone is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

The exposure standard for wireless mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6W/kg.\* Tests for SAR are conducted using standard operating positions accepted by the FCC with the phone transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the phone while operating can be well below the maximum value. This is because the phone is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output.

Before a phone model is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the limit established by the government-adopted requirement for safe exposure. The tests are performed in positions and locations (for example, at the ear and worn on the body) as required by the FCC for each model. The highest SAR value for this model phone as reported to the FCC:

When tested for use at the ear-

FCCID # QMNRH-3 is 1.15 W/kg

When worn on the body, as described in this user guide-

FCCID # QMNRH-3 is 0.99 W/kg

(Body-worn measurements differ among phone models, depending upon available enhancements and FCC requirements).

While there may be differences between the SAR levels of various phones and at various positions, they all meet the government requirement.

The FCC has granted an Equipment Authorization for this model phone with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this model phone is on file with the FCC and can be found under the Display Grant section of <http://www.fcc.gov/oet/fccid> after searching on FCC ID QMNRH-3.

For body worn operation, this phone has been tested and meets the FCC RF exposure guidelines for use with an enhancement that contains no metal and that positions the handset a minimum of 7/8 inch (2.2 cm) from the body. Use of other enhancements may not ensure compliance with FCC RF exposure guidelines. If you do not use a body worn enhancement, and are not holding the phone at the ear, position the handset a minimum of 7/8 inch (2.2 cm) from your body when the phone is switched on.

\*In the United States and Canada, the SAR limit for mobile phones used by the public is 1.6 watts/kilogram (W/kg) averaged over one gram of tissue. The standard incorporates a substantial margin of safety to give additional protection for the public and to account for any variations in measurements. SAR values may vary depending on national reporting requirements and the network band. For SAR information in other regions please look under product information at:

<http://www.nokia.com>

## • 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 enhancements out of the reach of small children.
- Keep the phone dry. Precipitation, humidity and all types of liquids or moisture can 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 it warms up (to its normal temperature), moisture can form inside and may damage electronic circuit boards.
- Do not attempt to open the phone except to remove or change front and back covers. Nonexpert handling 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.
- Do not paint the phone. Paint can clog the moving parts and prevent proper operation.
- Use only the supplied or an approved replacement antenna. Unauthorized antennas, modifications, or attachments could damage the phone and may violate regulations governing radio devices.

All of the above suggestions apply equally to your phone, battery, charger or any enhancement. If any of them are not working properly, take them to your nearest qualified service facility. The personnel there will assist you, and if necessary, arrange for service.

## • ENHANCEMENTS

If you want to enhance your phone functionality, a range of enhancements is available for you. You can select any of these items to help accommodate your specific communication needs. For availability of these and other enhancements, contact your service provider.



### **A FEW PRACTICAL RULES FOR ENHANCEMENT OPERATION**

- Keep all enhancements out of the reach of small children.
- When you disconnect the power cord of any enhancement, grasp and pull the plug, not the cord.
- Check regularly that any vehicle-installed enhancements are mounted and are operating properly.
- Installation of any complex car enhancements must be made by qualified personnel only.
- Use only batteries, chargers, and enhancements that have been approved by Nokia. The use of any other types could invalidate any approval or warranty applying to the phone and could be dangerous. Refer to "Use enhancements safely" on page 71 for important battery usage information.

## • BATTERY INFORMATION



**Note:** The phone has a lithium ion (Li-Ion) battery. Dispose of batteries according to local regulations (for example, recycling). Do not dispose as household waste.

This section provides information about the phone battery. Be aware that the information in this section is subject to change.

The tables shown in this section provide information about the battery that is available for your phone, charging times with the Standard Travel Charger (ACP-7U), the talk and standby times. Consult your service provider for more information.

### Charging Times

Charging times for the BL-5C Li-ion Battery (850 mAh) are approximate:

Battery option:	ACP-7U
BL-5C Li-ion	3 hrs 50 min

### Standby and Talk Times

Mode	Talk time	Standby time
Digital	Up to 3 hrs and 7 min	Up to 14.5 days



**Note:** Battery talk and standby times are estimates only and depend on signal strength, network conditions, features used, battery age and condition (including the effect of charging habits), temperatures to which battery is exposed, use in digital mode, and many other factors. Please note that the amount of time a phone is used for calls will affect its standby time. Likewise, the amount of time that the phone is turned on and in standby mode will affect its talk time.

### Charging and Discharging

Your phone is powered by a rechargeable battery. Note that the full performance of a new battery is achieved only after two or three complete charge and discharge cycles!

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.

Use only batteries approved by the phone manufacturer and recharge your battery only with the chargers approved by the manufacturer. Unplug the charger when not in use. Do not leave the battery connected to a charger for longer than 72 hours, since prolonged maintenance charging may shorten its lifetime. If left unused, a fully charged battery will discharge over time.

Temperature extremes can affect the ability of your battery to charge. Battery will not charge at temperatures above 140°F (60°C).

## • CHARGERS AND OTHER ENHANCEMENTS

Check the model number of any charger before use with this device. This device is intended for use when supplied with power from the devices listed on the following pages.



**Warning!** Use only batteries, chargers, and enhancements approved by Nokia for use with this particular phone model. The use of any other types may invalidate any approval or warranty applying to the phone and may be dangerous.

For availability of approved enhancements, please check with your dealer.

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

### Learn about chargers and other enhancements

Be aware that the information about the phone chargers and enhancements found in this section is subject to change as the chargers and enhancements change. Chargers and enhancements described in this section are available for your phone. Contact your dealer for details and refer to the enhancements brochure in your sales package for all Nokia Original enhancements.



**Note:** When a charger is not in use, disconnect it from the power source. Do not leave the battery connected to a charger for more than 72 hours, since prolonged maintenance charging of the battery could shorten its lifetime. If left unused, a fully charged battery will discharge over time.

- Standard Charger (ACP-7U)
- Rapid Travel Charger (ACP-8U)
- Travel Charger (ACP-12U)
- Rapid Mobile Charger (LCH-9)
- Headset (HS-5)
- Headset (HDB-4)
- Data Cable (DKU-5)
- DCV-15 Desktop charger
- Loopset (LPS-4)
- BHF-1 Basic Car Kit
- Mobile Holder (MBC-17)

## • NOKIA XPRESS-ON™ COLOR COVERS

The Xpress-on cover is available in several fashion colors. Xpress-on covers may be purchased from your authorized Nokia dealer.

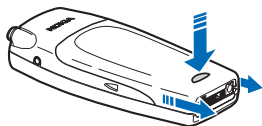


**Warning!** Before changing the cover, always switch off the power and disconnect the phone from the charger or any other device. Always store and use the phone with the covers attached.

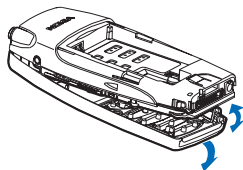
**REMOVE THE BACK COVER**

Switch off the power. Disconnect the phone from the charger or any other device.

- 1 Push the release button on the back cover.
- 2 Slide the cover downward and lift off.

**REMOVE THE FRONT COVER**

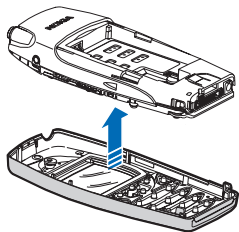
- 1 With the phone face down or up, grab the bottom of the front cover.
- 2 Gently pry the front cover away from the phone and lift the cover off the phone.



**Warning!** When the front cover is off the phone, be careful not to damage the phone screen face or the rubber gasket around it.

**REPLACE THE FRONT COVER**

- 1 Align the keypad with the proper openings in the front cover.
- 2 Gently push the front cover into the phone until it clicks into place.

**REPLACE THE BACK COVER**

- 1 Insert the two catches of the back cover in the corresponding slots in the phone.
- 2 Slide the cover towards the top of the phone until it locks into place.



## 19 Nokia One Year Limited Warranty

Nokia Inc. ("Nokia") warrants that this cellular phone ("Product") is free from defects in material and workmanship that result in Product failure during normal usage, according to the following terms and conditions:

- 1 The limited warranty for the Product extends for ONE (1) year beginning on the date of the purchase of the Product. This one year period is extended by each whole day that the Product is out of your possession for repair under this warranty.
- 2 The limited warranty extends only to the original purchaser ("Consumer") of the Product and is not assignable or transferable to any subsequent purchaser/end- user.
- 3 The limited warranty extends only to Consumers who purchase the Product in the United States of America.
- 4 During the limited warranty period, Nokia will repair, or replace, at Nokia's sole option, any defective parts, or any parts that will not properly operate for their intended use with new or refurbished replacement items if such repair or replacement is needed because of product malfunction or failure during normal usage. No charge will be made to the Consumer for any such parts. Nokia will also pay for the labor charges incurred by Nokia in repairing or replacing the defective parts. The limited warranty does not cover defects in appearance, cosmetic, decorative or structural items, including framing, and any non-operative parts. Nokia's limit of liability under the limited warranty shall be the actual cash value of the Product at the time the Consumer returns the Product for repair, determined by the price paid by the Consumer for the Product less a reasonable amount for usage. Nokia shall not be liable for any other losses or damages. These remedies are the Consumer's exclusive remedies for breach of warranty.
- 5 Upon request from Nokia, the Consumer must prove the date of the original purchase of the Product by a dated bill of sale or dated itemized receipt.
- 6 The Consumer shall bear the cost of shipping the Product to Nokia in Melbourne, Florida. Nokia shall bear the cost of shipping the Product back to the Consumer after the completion of service under this limited warranty.
- 7 The Consumer shall have no coverage or benefits under this limited warranty if any of the following conditions are applicable:
  - a The Product has been subjected to abnormal use, abnormal conditions, improper storage, exposure to moisture or dampness, unauthorized modifications, unauthorized connections, unauthorized repair, misuse, neglect, abuse, accident, alteration, improper installation, or other acts which are not the fault of Nokia, including damage caused by shipping.
  - b The Product has been damaged from external causes such as collision with an object, or from fire, flooding, sand, dirt, windstorm, lightning, earthquake or damage from exposure to weather conditions, an Act of God, or battery leakage, theft, blown fuse, or improper use of any electrical source, damage caused by computer or internet viruses, bugs, worms, Trojan Horses, cancelbots or damage caused by the connection to other products not recommended for interconnection by Nokia.

- c Nokia was not advised in writing by the Consumer of the alleged defect or malfunction of the Product within fourteen (14) days after the expiration of the applicable limited warranty period.
  - d The Product serial number plate or the enhancement data code has been removed, defaced or altered.
  - e The defect or damage was caused by the defective function of the cellular system or by inadequate signal reception by the external antenna, or viruses or other software problems introduced into the Product.
- 8** Nokia does not warrant uninterrupted or error-free operation of the Product. If a problem develops during the limited warranty period, the Consumer shall take the following step-by-step procedure:
- a The Consumer shall return the Product to the place of purchase for repair or replacement processing.
  - b If "a" is not convenient because of distance (more than 50 miles) or for other good cause, the Consumer shall ship the Product prepaid and insured to:  
Nokia Inc., Attn: Repair Department  
795 West Nasa Blvd.  
Melbourne, FL 32901
  - c The Consumer shall include a return address, daytime phone number and/or fax number, complete description of the problem, proof of purchase and service agreement (if applicable). Expenses related to removing the Product from an installation are not covered under this limited warranty.
  - d The Consumer will be billed for any parts or labor charges not covered by this limited warranty. The Consumer will be responsible for any expenses related to reinstallation of the Product.
  - e Nokia will repair the Product under the limited warranty within 30 days after receipt of the Product. If Nokia cannot perform repairs covered under this limited warranty within 30 days, or after a reasonable number of attempts to repair the same defect, Nokia at its option, will provide a replacement Product or refund the purchase price of the Product less a reasonable amount for usage. In some states the Consumer may have the right to a loaner if the repair of the Product takes more than ten (10) days. Please contact the Customer Service Center at Nokia at the telephone number listed at the end of this warranty if you need a loaner and the repair of the Product has taken or is estimated to take more than ten (10) days.
  - f If the Product is returned during the limited warranty period, but the problem with the Product is not covered under the terms and conditions of this limited warranty, the Consumer will be notified and given an estimate of the charges the Consumer must pay to have the Product repaired, with all shipping charges billed to the Consumer. If the estimate is refused, the Product will be returned freight collect. If the Product is returned after the expiration of the limited warranty period, Nokia's normal service policies shall apply and the Consumer will be responsible for all shipping charges.
- 9** YOU (THE CONSUMER) UNDERSTAND THAT THE PRODUCT MAY CONSIST OF REFURBISHED EQUIPMENT THAT CONTAINS USED COMPONENTS, SOME OF WHICH HAVE BEEN REPROCESSED. The used components comply with Product performance and reliability specifications.



- 10 ANY IMPLIED WARRANTY OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE OR USE, SHALL BE LIMITED TO THE DURATION OF THE FOREGOING LIMITED WRITTEN WARRANTY. OTHERWISE, THE FOREGOING LIMITED WARRANTY IS THE CONSUMER'S SOLE AND EXCLUSIVE REMEDY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. NOKIA SHALL NOT BE LIABLE FOR SPECIAL, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOSS OF ANTICIPATED BENEFITS OR PROFITS, LOSS OF SAVINGS OR REVENUE, LOSS OF DATA, PUNITIVE DAMAGES, LOSS OF USE OF THE PRODUCT OR ANY ASSOCIATED EQUIPMENT, COST OF CAPITAL, COST OF ANY SUBSTITUTE EQUIPMENT OR FACILITIES, DOWNTIME, THE CLAIMS OF ANY THIRD PARTIES, INCLUDING CUSTOMERS, AND INJURY TO PROPERTY, RESULTING FROM THE PURCHASE OR USE OF THE PRODUCT OR ARISING FROM BREACH OF THE WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, STRICT TORT, OR ANY OTHER LEGAL OR EQUITABLE THEORY, EVEN IF NOKIA KNEW OF THE LIKELIHOOD OF SUCH DAMAGES. NOKIA SHALL NOT BE LIABLE FOR DELAY IN RENDERING SERVICE UNDER THE LIMITED WARRANTY, OR LOSS OF USE DURING THE PERIOD THAT THE PRODUCT IS BEING REPAIRED.
- 11 Some states do not allow limitation of how long an implied warranty lasts, so the one year warranty limitation may not apply to you (the Consumer). Some states do not allow the exclusion or limitation of incidental and consequential damages, so certain of the above limitations or exclusions may not apply to you (the Consumer). This limited warranty gives the Consumer specific legal rights and the Consumer may also have other rights which vary from state to state.
- 12 Nokia neither assumes nor authorizes any authorized service center or any other person or entity to assume for it any other obligation or liability beyond that which is expressly provided for in this limited warranty including the provider or seller of any extended warranty or service agreement.
- 13 This is the entire warranty between the Nokia and the Consumer, and supersedes all prior and contemporaneous agreements or understandings, oral or written, relating to the Product, and no representation, promise or condition not contained herein shall modify these terms.
- 14 This limited warranty allocates the risk of failure of the Product between the Consumer and Nokia. The allocation is recognized by the Consumer and is reflected in the purchase price.
- 15 Any action or lawsuit for breach of warranty must be commenced within eighteen (18) months following purchase of the Product.
- 16 Questions concerning this limited warranty may be directed to:  
Nokia Inc.  
Attn: Customer Service  
7725 Woodland Center Blvd., Ste. 150  
Tampa, FL 33614  
Telephone: 1-888-NOKIA-2U (1-888-665-4228)  
Fax: 1-813-249-9619  
TTY/TDD Users Only: 1-800-24-NOKIA (1-800-246-6542)
- 17 The limited warranty period for Nokia supplied attachments and enhancements is specifically defined within their own warranty cards and packaging.

Manufactured or sold under one or more of the following US patents:

D405445	5444816	5737323	5821891	5990740	6055264	6154455	Others
D406583	5491718	5754976	5854978	5991627	6072787	6167083	4558302
D414189	5596571	5758278	5859843	6005889	6076181	6205325	4901307
D405784	5642377	5790957	5887250	6009129	6078570	6253075	5056109
D423515	5699482	5793744	5887252	6025802	6084471	6292474	5101501
4969192	5701392	5796757	5889770	6029065	6088342		5109390
5440597	5708656	5802465	5929813	6047071	6148290		5265119
							RE32580

## NOTES

# Appendix A

## Message from the CTIA (Cellular Telecommunications & Internet Association) to all users of mobile phones.

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Phone: (202) 785-0081

*Safety is the most important call you will ever make.*

### **A Guide to Safe and Responsible Wireless Phone Use**

Tens of millions of people in the U.S. today take advantage of the unique combination of convenience, safety and value delivered by the wireless telephone. Quite simply, the wireless phone gives people the powerful ability to communicate by voice--almost anywhere, anytime--with the boss, with a client, with the kids, with emergency personnel or even with the police. Each year, Americans make billions of calls from their wireless phones, and the numbers are rapidly growing.

But an important responsibility accompanies those benefits, one that every wireless phone user must uphold. When driving a car, driving is your first responsibility. A wireless phone can be an invaluable tool, but good judgment must be exercised at all times while driving a motor vehicle--whether on the phone or not.

The basic lessons are ones we all learned as teenagers. Driving requires alertness, caution and courtesy. It requires a heavy dose of basic common sense---keep your head up, keep your eyes on the road, check your mirrors frequently and watch out for other drivers. It requires obeying all traffic signs and signals and staying within the speed limit. It means using seatbelts and requiring other passengers to do the same.

But with wireless phone use, driving safely means a little more. This brochure is a call to wireless phone users everywhere to make safety their first priority when behind the wheel of a car. Wireless telecommunications is keeping us in touch, simplifying our lives, protecting us in emergencies and providing opportunities to help others in need.

When it comes to the use of wireless phones, *safety is your most important call.*

### **Wireless Phone "Safety Tips"**

Below are safety tips to follow while driving and using a wireless phone which should be easy to remember.

- 1 Get to know your wireless phone and its features such as speed dial and redial. Carefully read your instruction manual and learn to take advantage of valuable features most phones offer, including automatic redial and memory. Also, work to memorize the phone keypad so you can use the speed dial function without taking your attention off the road.
- 2 When available, use a hands free device. A number of hands free wireless phone accessories are readily available today. Whether you choose an installed mounted device for your wireless phone or a speaker phone accessory, take advantage of these devices if available to you.
- 3 Position your wireless phone within easy reach. Make sure you place your wireless phone within easy reach and where you can grab it without removing your eyes from the road. If you get an incoming call at an inconvenient time, if possible, let your voice mail answer it for you.
- 4 Suspend conversations during hazardous driving conditions or situations. Let the person you are speaking with know you are driving; if necessary, suspend the call in heavy traffic or hazardous weather conditions. Rain, sleet, snow and ice can be hazardous, but so is heavy traffic. As a driver, your first responsibility is to pay attention to the road.

- 5 Do not take notes or look up phone numbers while driving. If you are reading an address book or business card, or writing a "to do" list while driving a car, you are not watching where you are going. It's common sense. Don't get caught in a dangerous situation because you are reading or writing and not paying attention to the road or nearby vehicles.
- 6 Dial sensibly and assess the traffic; if possible, place calls when you are not moving or before pulling into traffic. Try to plan your calls before you begin your trip or attempt to coincide your calls with times you may be stopped at a stop sign, red light or otherwise stationary. But if you need to dial while driving, follow this simple tip--dial only a few numbers, check the road and your mirrors, then continue.
- 7 Do not engage in stressful or emotional conversations that may be distracting. Stressful or emotional conversations and driving do not mix--they are distracting and even dangerous when you are behind the wheel of a car. Make people you are talking with aware you are driving and if necessary, suspend conversations which have the potential to divert your attention from the road.
- 8 Use your wireless phone to call for help. Your wireless phone is one of the greatest tools you can own to protect yourself and your family in dangerous situations--with your phone at your side, help is only three numbers away. Dial 9-1-1 or other local emergency number in the case of fire, traffic accident, road hazard or medical emergency. Remember, it is a free call on your wireless phone!
- 9 Use your wireless phone to help others in emergencies. Your wireless phone provides you a perfect opportunity to be a "Good Samaritan" in your community. If you see an auto accident, crime in progress or other serious emergency where lives are in danger, call 9-1-1 or other local emergency number, as you would want others to do for you.
- 10 Call roadside assistance or a special wireless non-emergency assistance number when necessary. Certain situations you encounter while driving may require attention, but are not urgent enough to merit a call for emergency services. But you still can use your wireless phone to lend a hand. If you see a broken-down vehicle posing no serious hazard, a broken traffic signal, a minor traffic accident where no one appears injured or a vehicle you know to be stolen, call roadside assistance or other special non-emergency wireless number.

Careless, distracted individuals and people driving irresponsibly represent a hazard to everyone on the road. Since 1984, the Cellular Telecommunications Industry Association and the wireless industry have conducted educational outreach to inform wireless phone users of their responsibilities as safe drivers and good citizens. As we approach a new century, more and more of us will take advantage of the benefits of wireless telephones. And, as we take to the roads, we all have a responsibility to drive safely.

*The wireless industry reminds you to use your phone safely when driving.*

For more information, please call 1-888-901-SAFE.

For updates: <http://www.wow-com.com/consumer/issues/driving/articles.cfm?ID=85>

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## NOTES

## Appendix B

### Message from the FDA (U.S. Food and Drug Administration) to all users of mobile phones.

July 18, 2001 ..... For updates: <http://www.fda.gov/cdrh/phones>



### 1. Do wireless phones pose a health hazard?

The available scientific evidence does not show that any health problems are associated with using wireless phones. There is no proof, however, that wireless phones are absolutely safe. Wireless phones emit low levels of radiofrequency energy (RF) in the microwave range while being used. They also emit very low levels of RF when in the stand-by mode. Whereas high levels of RF can produce health effects (by heating tissue), exposure to low level RF that does not produce heating effects causes no known adverse health effects. Many studies of low level RF exposures have not found any biological effects. Some studies have suggested that some biological effects may occur, but such findings have not been confirmed by additional research. In some cases, other researchers have had difficulty in reproducing those studies, or in determining the reasons for inconsistent results.

### 2. What is FDA's role concerning the safety of wireless phones?

Under the law, FDA does not review the safety of radiation-emitting consumer products such as wireless phones before they can be sold, as it does with new drugs or medical devices. However, the agency has authority to take action if wireless phones are shown to emit radiofrequency energy (RF) at a level that is hazardous to the user. In such a case, FDA could require the manufacturers of wireless phones to notify users of the health hazard and to repair, replace or recall the phones so that the hazard no longer exists.

Although the existing scientific data do not justify FDA regulatory actions, FDA has urged the wireless phone industry to take a number of steps, including the following:

- Support needed research into possible biological effects of RF of the type emitted by wireless phones;
- Design wireless phones in a way that minimizes any RF exposure to the user that is not necessary for device function; and
- Cooperate in providing users of wireless phones with the best possible information on possible effects of wireless phone use on human health.

FDA belongs to an interagency working group of the federal agencies that have responsibility for different aspects of RF safety to ensure coordinated efforts at the federal level. The following agencies belong to this working group:

- National Institute for Occupational Safety and Health
- Environmental Protection Agency
- Federal Communications Commission
- Occupational Safety and Health Administration
- National Telecommunications and Information Administration

The National Institutes of Health participates in some interagency working group activities, as well.

FDA shares regulatory responsibilities for wireless phones with the Federal Communications Commission (FCC). All phones that are sold in the United States must comply with FCC safety guidelines that limit RF exposure. FCC relies on FDA and other health agencies for safety questions about wireless phones. FCC also regulates the base stations that the wireless phone networks rely upon. While these base stations operate at higher power than do the wireless phones themselves, the RF exposures that people get from these base stations are typically thousands of times lower than those they can get from wireless phones. Base stations are thus not the subject of the safety questions discussed in this document.

### **3. What kinds of phones are the subject of this update?**

The term wireless phone refers here to hand-held wireless phones with built-in antennas, often called cell mobile or PCS phones. These types of wireless phones can expose the user to measurable radiofrequency energy (RF) because of the short distance between the phone and the user's head. These RF exposures are limited by Federal Communications Commission safety guidelines that were developed with the advice of FDA and other federal health and safety agencies. When the phone is located at greater distances from the user, the exposure to RF is drastically lower because a person's RF exposure decreases rapidly with increasing distance from the source. The so-called cordless phones; which have a base unit connected to the telephone wiring in a house, typically operate at far lower power levels, and thus produce RF exposures far below the FCC safety limits.

### **4. What are the results of the research done already?**

The research done thus far has produced conflicting results, and many studies have suffered from flaws in their research methods. Animal experiments investigating the effects of radiofrequency energy (RF) exposures characteristic of wireless phones have yielded conflicting results that often cannot be repeated in other laboratories. A few animal studies, however, have suggested that low levels of RF could accelerate the development of cancer in laboratory animals. However, many of the studies that showed increased tumor development used animals that had been genetically engineered or treated with cancer-causing chemicals so as to be pre-disposed to develop cancer in the absence of RF exposure. Other studies exposed the animals to RF for up to 22 hours per day. These conditions are not similar to the conditions under which people use wireless phones, so we don't know with certainty what the results of such studies mean for human health.

Three large epidemiology studies have been published since December 2000. Between them, the studies investigated any possible association between the use of wireless phones and primary brain cancer, glioma, meningioma, or acoustic neuroma, tumors of the brain or salivary gland, leukemia, or other cancers. None of the studies demonstrated the existence of any harmful health effects from wireless phone RF exposures. However, none of the studies can answer questions about long-term exposures, since the average period of phone use in these studies was around three years.

## **5. What research is needed to decide whether RF exposure from wireless phones poses a health risk?**

A combination of laboratory studies and epidemiological studies of people actually using wireless phones would provide some of the data that are needed. Lifetime animal exposure studies could be completed in a few years. However, very large numbers of animals would be needed to provide reliable proof of a cancer promoting effect if one exists. Epidemiological studies can provide data that is directly applicable to human populations, but 10 or more years follow-up may be needed to provide answers about some health effects, such as cancer. This is because the interval between the time of exposure to a cancer-causing agent and the time tumors develop - if they do - may be many, many years. The interpretation of epidemiological studies is hampered by difficulties in measuring actual RF exposure during day-to-day use of wireless phones. Many factors affect this measurement, such as the angle at which the phone is held, or which model of phone is used.

## **6. What is FDA doing to find out more about the possible health effects of wireless phone RF?**

FDA is working with the U.S. National Toxicology Program and with groups of investigators around the world to ensure that high priority animal studies are conducted to address important questions about the effects of exposure to radiofrequency energy (RF).

FDA has been a leading participant in the World Health Organization International Electromagnetic Fields (EMF) Project since its inception in 1996. An influential result of this work has been the development of a detailed agenda of research needs that has driven the establishment of new research programs around the world. The Project has also helped develop a series of public information documents on EMF issues.

FDA and the Cellular Telecommunications & Internet Association (CTIA) have a formal Cooperative Research and Development Agreement (CRADA) to do research on wireless phone safety. FDA provides the scientific oversight, obtaining input from experts in government, industry, and academic organizations. CTIA-funded research is conducted through contracts to independent investigators. The initial research will include both laboratory studies and studies of wireless phone users. The CRADA will also include a broad assessment of additional research needs in the context of the latest research developments around the world.

## **7. How can I find out how much radiofrequency energy exposure I can get by using my wireless phone?**

All phones sold in the United States must comply with Federal Communications Commission (FCC) guidelines that limit radiofrequency energy (RF) exposures. FCC established these guidelines in consultation with FDA and the other federal health and safety agencies. The FCC limit for RF exposure from wireless telephones is set at a Specific Absorption Rate (SAR) of 1.6 watts per kilogram (1.6 W/kg). The FCC limit is consistent with the safety standards developed by the Institute of Electrical and Electronic Engineering (IEEE) and the National Council on Radiation Protection and Measurement. The exposure limit takes into consideration the body's ability to remove heat from the tissues that absorb energy from the wireless phone and is set well below levels known to have effects.

Manufacturers of wireless phones must report the RF exposure level for each model of phone to the FCC. The FCC website (<http://www.fcc.gov/oet/rfsafety>) gives directions for locating the FCC identification number on your phone so you can find your phone's RF exposure level in the online listing.

## **8. What has FDA done to measure the radiofrequency energy coming from wireless phones?**

The Institute of Electrical and Electronic Engineers (IEEE) is developing a technical standard for measuring the radiofrequency energy (RF) exposure from wireless phones and other wireless handsets with the participation and leadership of FDA scientists and engineers. The standard, Recommended Practice for Determining the Spatial-Peak Specific Absorption Rate (SAR) in the Human Body Due to Wireless Communications Devices: Experimental Techniques, sets forth the first consistent test methodology for measuring the rate at which RF is deposited in the heads of wireless phone users. The test method uses a tissue-simulating model of the human head. Standardized SAR test methodology is expected to greatly improve the consistency of measurements made at different laboratories on the same phone. SAR is the measurement of the amount of energy absorbed in tissue, either by the whole body or a small part of the body. It is measured in watts/kg (or milliwatts/g) of matter. This measurement is used to determine whether a wireless phone complies with safety guidelines.

## **9. What steps can I take to reduce my exposure to radiofrequency energy from my wireless phone?**

If there is a risk from these products--and at this point we do not know that there is--it is probably very small. But if you are concerned about avoiding even potential risks, you can take a few simple steps to minimize your exposure to radiofrequency energy (RF). Since time is a key factor in how much exposure a person receives, reducing the amount of time spent using a wireless phone will reduce RF exposure.

If you must conduct extended conversations by wireless phone every day, you could place more distance between your body and the source of the RF, since the exposure level drops off dramatically with distance. For example, you could use a headset and carry the wireless phone away from your body or use a wireless phone connected to a remote antenna.

Again, the scientific data do not demonstrate that wireless phones are harmful. But if you are concerned about the RF exposure from these products, you can use measures like those described above to reduce your RF exposure from wireless phone use.

## **10. What about children using wireless phones?**

The scientific evidence does not show a danger to users of wireless phones, including children and teenagers. If you want to take steps to lower exposure to radiofrequency energy (RF), the measures described above would apply to children and teenagers using wireless phones. Reducing the time of wireless phone use and increasing the distance between the user and the RF source will reduce RF exposure. Some groups sponsored by other national governments have advised that children be discouraged from using wireless phones at all. For example, the government in the United Kingdom distributed leaflets containing such a recommendation in December 2000. They noted that no evidence exists that using a wireless phone causes brain tumors or other ill effects. Their recommendation to limit wireless phone use by children was strictly precautionary; it was not based on scientific evidence that any health hazard exists.

## **11. What about wireless phone interference with medical equipment?**

Radiofrequency energy (RF) from wireless phones can interact with some electronic devices. For this reason, FDA helped develop a detailed test method to measure electromagnetic interference (EMI) of implanted cardiac pacemakers and defibrillators from wireless telephones. This test method is now part of a standard sponsored by the Association for the Advancement of Medical Instrumentation (AAMI). The final draft, a joint effort by FDA, medical device manufacturers, and many other groups, was completed in late 2000. This standard will allow manufacturers to ensure that cardiac pacemakers and defibrillators are safe from wireless phone EMI. FDA has tested hearing aids for interference from handheld wireless phones and helped develop a voluntary standard sponsored by the Institute of Electrical and Electronic Engineers (IEEE). This standard specifies test methods and performance requirements for hearing aids and wireless phones so that no interference occurs when a person uses a compatible phone and a accompanied hearing aid at the same time. This standard was approved by the IEEE in 2000.

FDA continues to monitor the use of wireless phones for possible interactions with other medical devices. Should harmful interference be found to occur, FDA will conduct testing to assess the interference and work to resolve the problem.

## **12. Where can I find additional information?**

For additional information, please refer to the following resources:

- FDA web page on wireless phones  
<http://www.fda.gov/cdrh/phones/index.html>
- Federal Communications Commission (FCC) RF Safety Program  
<http://www.fcc.gov/oet/rfsafety>
- International Commission on Non-Ionizing Radiation Protection  
<http://www.icnirp.de>
- World Health Organization (WHO) International EMF Project  
<http://www.who.int/emf>
- National Radiological Protection Board (UK)  
<http://www.nrpb.org.uk/>

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