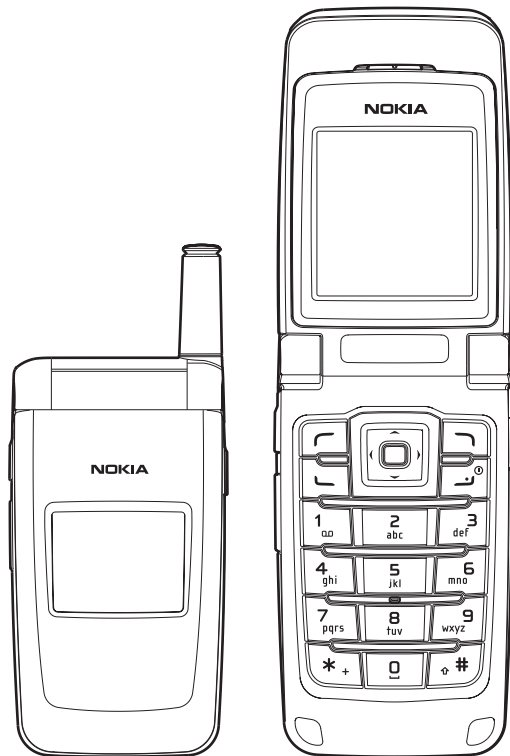


# FCC Draft

## Nokia 3155, Nokia 3155i, and Nokia 3152 User Guide

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## LEGAL INFORMATION

### DECLARATION OF CONFORMITY

We, NOKIA CORPORATION declare under our sole responsibility that the products Nokia 3155, Nokia 3155i, and Nokia 3152 are in conformity with the provisions of the following Council Directive: 1999/5/EC. A copy of the Declaration of Conformity can be found at [http://www.nokia.com/phones/declaration\\_of\\_conformity/](http://www.nokia.com/phones/declaration_of_conformity/).

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US Patent No. 5818437 and other pending patents. T9 text input software

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Includes RSA BSAFE cryptographic or security protocol software from RSA Security.



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The information contained in this user guide was written for the Nokia 3155, Nokia 3155i, and Nokia 3152 products. Nokia operates a policy of ongoing development. Nokia reserves the right to make changes to any of the products described in this document without prior notice.

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### EXPORT CONTROLS

This device may contain commodities, technology, or software subject to export laws and regulations from the U.S. and other countries. Diversion contrary to law is prohibited.

### FCC/INDUSTRY CANADA NOTICE

Your device 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

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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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For your safety

## For your safety

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Read these simple guidelines. Not following them may be dangerous or illegal. Read the complete user guide for further information.



### SWITCH ON SAFELY

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



### ROAD SAFETY COMES FIRST

Obey all local laws. Always keep your hands free to operate the vehicle while driving. Your first consideration while driving should be road safety.



### INTERFERENCE

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



### SWITCH OFF IN HOSPITALS

Follow any restrictions. Switch the device off near medical equipment.



### SWITCH OFF IN AIRCRAFT

Follow any restrictions. Wireless devices can cause interference in aircraft.



### SWITCH OFF WHEN REFUELING

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



### SWITCH OFF NEAR BLASTING

Follow any restrictions. Don't use the device where blasting is in progress.



### USE SENSIBLY

Use only in the normal position as explained in the product documentation. Don't touch the antenna unnecessarily.



### QUALIFIED SERVICE

Only qualified personnel may install or repair this product.



### ENHANCEMENTS AND BATTERIES

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

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## For your safety



### WATER-RESISTANCE

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



### BACK-UP COPIES

Remember to make back-up copies or keep a written record of all important information.



### CONNECTING TO OTHER DEVICES

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



### EMERGENCY CALLS

Ensure the device is switched on and in service. Press the end key as many times as needed to clear the display and return to the main screen. Enter the emergency number, then press the call key. Give your location. Do not end the call until given permission to do so.

## ■ About your device

The wireless devices described in this guide are approved for use on the CDMA 800 and 1900, AMPS, and GPS networks. Contact your service provider for more information about networks.

When using the features in this device, obey all laws and respect privacy and the legitimate rights of others.



**Warning:** To use any features in this device, other than the alarm clock, the device must be switched on. Do not switch the device on when wireless phone use may cause interference or danger.

## ■ Network Services

To use the device you must have service from a wireless service provider. Many of the features in this device depend on features in the wireless network to function. These network services may not be available on all networks or you may have to make specific arrangements with your service provider before you can utilize them. Your service provider may need to give you additional instructions for their use and explain what charges will apply. Some networks may have limitations that affect how you can use network services. For instance, some networks may not support all language-dependent characters and services.

Your service provider may have requested that certain features be disabled or not activated in your device. If so, they will not appear on your device menu. Contact your service provider for more information.

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For your safety

## ■ Shared memory

The following device features may share memory: contacts; text messages; photos, images, and tones in gallery; calendar notes; games; and applications. Use of one or more of these features may reduce the memory available for the remaining features sharing memory. If your phone displays a message that the memory is full when you try to use a shared memory feature, delete some of the information or entries stored in the shared memory features before continuing. Some of the features, such as photos, images, and tones in gallery; text messages; and applications may have a certain amount of memory specially allotted to them in addition to the memory shared with other features.

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W e l c o m e

## Welcome

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Congratulations on your purchase of the Nokia 3155, Nokia 3155i, or Nokia 3152 mobile phone. Your phone provides many functions practical for daily use, such as a hands-free loudspeaker, alarm clock, calculator, calendar, and more. Your phone can also connect to a PC, laptop, or other device using a data cable. To personalize your phone, you can set your favorite ring tones.

### ■ Register your phone

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

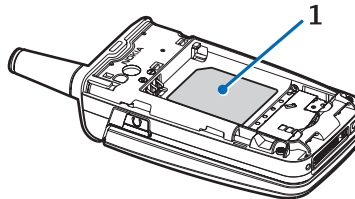
### ■ Getting help

#### Find your phone label

If you need help, Nokia Customer Care is available for assistance. Before calling, we recommend that you write down the following information and have it available:

- Electronic serial number (ESN)
- Your zip code (only in the US)

The ESN is found on the type label, which is located beneath the battery on the back of the phone. See "Remove the back cover," p. 17 and "Remove the battery," p. 17.



#### Contact Nokia

Please have your product with you when contacting any of these numbers:

Nokia Customer Care Center, USA

Nokia Inc.

Tel: 1-888-NOKIA-2U (1-888-665-4228)

Fax: 1-813-249-9619

TTY/TDD users: 1-800-24-NOKIA (1-800-246-6542)



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W e l c o m e

Customer Care Center, Canada  
Nokia Products Ltd.  
601 Westney Road South  
Ajax, Ontario L1S 4N7  
Tel: 1-888-22-NOKIA (1-888-226-6542)  
Fax: 1-905-619-4360

## Updates

From time to time, Nokia updates this guide to reflect changes. The latest version may be available at [www.nokia.com](http://www.nokia.com). An interactive tutorial for this product may be available at [www.nokiahowto.com](http://www.nokiahowto.com).

## Accessibility solutions

Nokia is committed to making mobile phones easy to use for all individuals, including those with disabilities. For more information visit [www.nokiaaccessibility.com](http://www.nokiaaccessibility.com).

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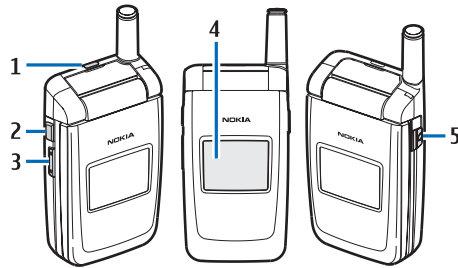
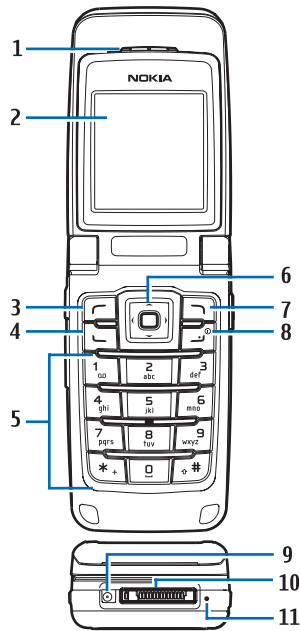
Phone at a glance

## 1. Phone at a glance

- Earpiece port (1)
- Display screen (2)
- Left selection key (3)
- Call key (4)
- Keypad (5)
- Four-way scroll and selection key (6)
- Right selection key (7)
- Power key/end key (8)
- Charger port (9)
- Pop-Port™ connector (10)
- Microphone (11)

### ■ Keys and parts

- Loudspeaker (1)
- Voice key (2)
- Volume key (3)
- Front display (4)
- Headset jack (5)



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## Phone at a glance

The voice key functions as follows:

- Short press—Answer an incoming call.
- Long press—Answer or make a voice dialing.

### ■ Standby mode

Depending on your wireless service provider and the model number of your phone, some or all of the following selection keys may appear in the standby mode.

The standby mode is home base and indicates your phone is in the idle state.

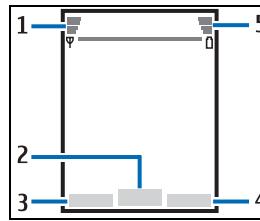
Signal strength (1)—A higher bar indicates a stronger network signal.

*Menu* (2)—Press the center selection key to select this option.

*Go to* (3)—Press the left selection key to select this option.

*Names* or network operator menu (4)—Press the right selection key to select this option.

Battery level (5)—A higher bar indicates more power in the battery.



### ■ Quick keys



Note: Depending on your wireless service provider and the model number of your phone, some or all of the following Quick keys may appear in the standby mode.

In the standby mode, the four-way scroll key instantly takes you to frequently-accessed menus:

Scroll up key—Go to the contacts list.

Scroll right key—View the calendar or network operator menu.

Scroll down key—Go to the contacts list.

Scroll left key—Quickly create a text message.



















Center selection key—Go to the main menu or a selected submenu.

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## Phone at a glance

### ■ Indicators and icons

Depending on your wireless service provider and the model number of your phone, some or all of the following indicators and icons may appear in the standby mode.

-  You have new text or picture messages. See "Text messages," p. 26.
-  You have new voice messages. See "Voice messages," p. 39.
-  Your phone keypad is locked. See "Keyguard," p. 22.
-  Your phone is set to the silent profile. See "Profiles," p. 59.
-  The alarm clock is set to on. See "Alarm clock," p. 78.
-  The countdown timer is running.
-  The stopwatch timer is running in the background.
-  Integrated hands-free is active. See "Loudspeaker," p. 21.
-  The timed profile is selected. See "Profiles," p. 59.
-  or  An enhancement is connected to the phone. See "Enhancement settings," p. 70.
-  Voice privacy encryption is active (or is not active) in the network.
-  or  Location info sharing is set to emergency or on. See "Location info sharing," p. 62.
-  You are in a digital network. See "Network Services," p. 6.
-  You are in an analog network. See "Network Services," p. 6.
-  You are in a 1XRTT network. See "Network Services," p. 6.
-  You are roaming outside your home network. See "Roaming options," p. 74.

### ■ Get the most out of this guide

The following sections illustrate the various components of your phone. Familiarize yourself with these sections to help you understand the instructions that follow.

This guide uses certain terms for the steps you need to perform.

- Press means to press and release a key quickly (short press). For example, press 7 means press the key on the keypad labeled with the number 7 and the letters pqrs.

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## Phone at a glance

- Press and hold means to press and hold a key for 2–3 seconds; then release the key (long press).
- Use selection keys to select a menu option. To select an option, press the selection key below the menu item on the phone screen.
- Use scroll keys to move up, down, left, or right in the menus.
- Call and end keys: Press the call key to place a call or to answer an incoming call. Press the end key to end a call or return to the idle state (standby mode).

## ■ Phone menus

Phone features are grouped according to function and are accessed through the main menus. Each main menu contains submenus and lists from which you can select or view items and customize your phone features. To access these menus and submenus, use the scroll method or a shortcut.

You can change your menu view from list to grid. Select *Menu > Options > Main menu view > List* or *Grid*.



Note: Some features may not be available, depending on your network. For more information, contact your wireless service provider.

## Scroll method

You can use the four-way scroll key to scroll up, down, left, and right through the options.



1. In the standby mode, select *Menu*, and scroll through the main menus using the scroll key.

As you scroll through the menus, the menu number appears in the upper right corner of the display. Below the battery level indicator is a scroll bar with a tab that moves up or down on the right side of the display screen as you scroll through the menus, providing a visual representation of your current position in the menu structure.
2. When you arrive at a menu, press the center selection key to select submenus.
  - Select *Back* (the right selection key) to return to the previous menu.
  - Press the end key to return to the standby mode from any menu or submenu.

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Phone at a glance

## In-phone help

Many features have brief descriptions (help text) you can view on the display. To view these descriptions, you must first activate help text as follows.

In the standby mode, select *Menu* > *Settings* > *Phone* > *Help text activation* > *On* or *Off*.

Scroll to a feature and wait about 14 seconds. Scroll down to view all of the description, or select *Back* to exit.

## ■ Security feature

The security feature protects your device from unauthorized outgoing calls or access to the stored information with the lock and security codes. The lock code is a four digit number while the security code a five digit one. By default, the security feature uses the lock code (defaulted to the last four digits of your phone number) instead of the security code to protect your phone.

You need to enter the lock code to access the following *Security* option:

1. In the standby mode, select *Menu* > *Settings* > *Security*.
2. Enter the lock code, and select *OK*. See "Security settings," p. 71.



**Note:** Depending on your wireless service provider, the preset lock code may be 1234 or 0000 instead of the last four digits of your phone number. If none of these work, contact your wireless service provider for help.

Your device, by default, requires you to enter the lock code to restore factory settings:

1. In the standby mode, select *Menu* > *Settings* > *Restore settings*.
2. Enter the lock code, and select *OK*. See "Change lock code," p. 72.



**Note:** Depending on your wireless service provider, your device may sometimes ask you for the security code (defaulted to 12345) instead of the lock code.

## ■ Go to functions

The *Go to* menu enables you to change the function of the left selection key on your phone. With this function, you can quickly access your most frequently used functions from the *Go to* menu in the standby mode.

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Phone at a glance

## Choose Go to functions

1. In the standby mode, select *Go to* > *Options* > *Select options*.
2. Scroll up or down to highlight the desired function.
3. Select *Mark* to add a function or *Unmark* to remove a function.
4. Select *Done* when you have added all desired functions.
5. Select *Yes* to save the changes.
6. In the standby mode, select *Go to* to display a list of the functions you selected in step 2.

## Organize functions

1. In the standby mode, select *Go to* > *Options* > *Organize*.
2. Scroll up or down to highlight the function you want to rearrange, and select *Move* > *Move up*, *Move down*, *Move to top*, or *Move to bottom*.
3. Select *Done* > *Yes* to save the changes.

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Set up your phone

## 2. Set up your phone

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### ■ Antenna

Your device has two antennas—the fixed antenna is active unless the extendable antenna is fully extended.

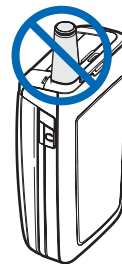
In the Nokia 3155i phone, the GPS antenna is also internal and is activated when placing emergency calls or when *On* is selected from the *Location info sharing* menu (a carrier-dependent feature). See "Location info sharing," p. 62.



Your device has a fixed and extendable antenna located towards the top of the phone with the fold closed. Hold the phone with the antenna area pointed up and over your shoulder.



**Note:** Do not touch the antenna unnecessarily with the device switched on. Contact with the antenna affects call quality and may cause the device to operate at a higher power level than otherwise needed. Not touching the antenna area during a phone call optimizes the antenna performance and battery life.



### ■ Battery



**Note:** Before removing the cover, always switch off the power and disconnect the charger and any other device. Avoid touching electronic components while changing the covers. Always store and use the device with the covers attached.

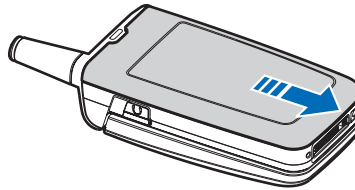


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## Set up your phone

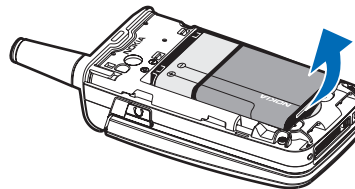
### Remove the back cover

1. With the back of the phone facing you, push down on the back cover.
2. Slide the back cover toward the bottom of the phone and remove.



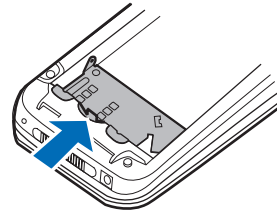
### Remove the battery

After you have removed the back cover, insert your finger into the finger grip, and lift the battery from its compartment.



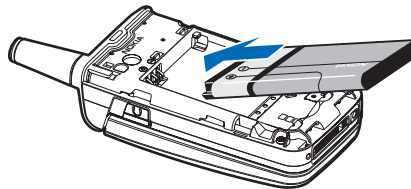
### UIM card slot

Your phone has a UIM (CDMA SIM) card slot built into the mechanics. However, the UIM is not functional in this phone model. Avoid placing anything into the UIM card slot.



### Replace the battery

1. Insert the battery, gold-colored contact end first, into the battery slot.
2. Push down on the other end of the battery to snap the battery into place.

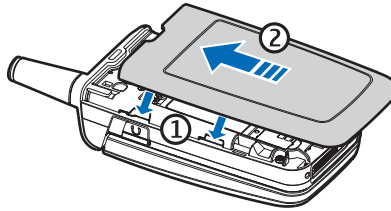


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Set up your phone

## Replace the back cover

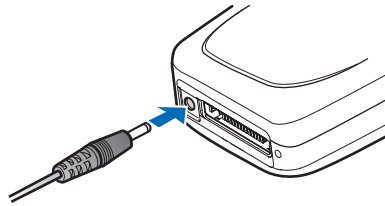
1. Set the back cover on the phone with the cover tabs aligned with the slots in the phone.
2. Slide the back cover toward the top of the phone until the back cover is securely in place.



## Charge the battery

1. Plug the charger transformer into a standard AC outlet.
2. Insert the charger output plug into the round jack at the bottom end of the phone.

After a few seconds, the battery indicator in the display starts to scroll from bottom to top. If the battery is completely discharged, it may take a few minutes before the charging indicator appears on the display or before any calls can be made.



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

## ■ Turn your phone on or off

1. To turn your phone on or off, press and hold the end key on the keypad for at least 4 seconds.
2. Enter the lock code, if necessary, and select **OK**. See "Change lock code," p. 72.




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

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## Set up your phone

### ■ Connect the headset

A compatible headset, such as HS-5, may be purchased with your phone or separately as an enhancement. See "Enhancement settings," p. 70.

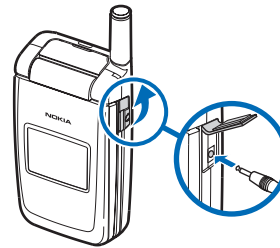
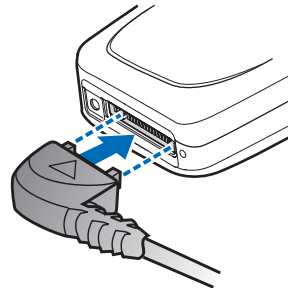
1. Plug the headset connector into the Pop-Port connector at the bottom end of your phone.  appears in the standby mode.

2. Position the headset on your ear.

With the headset connected, you can make, answer, and end calls as usual.

- Use the keypad to enter numbers.
- Press the call key to place a call. See "Phone at a glance," p. 10.
- Press the end key to end a call.

You can also plug a compatible headset, such as the HS-9 Universal Headset, into the 2.5-mm headset jack on the right side of your phone to allow hands-free operation. See "Enhancement settings," p. 70.



### ■ Make a call



**Note:** Before making or receiving a call, fully extend the whip antenna.

#### Keypad

1. Enter the phone number (including the area code), and press the call key. (To delete a character to the left of the cursor, select *Clear*.)
2. Press the end key to end the call, or select *End call* to cancel the call attempt.

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Set up your phone

## Contacts list

1. In the standby mode, scroll down to display your contacts list and highlight your desired entry.
2. Press the call key to make the call, or select *Options* > *Contact details* > *Select* to view details of the entry.

## Last dialed number

1. In the standby mode, press the call key to display the last 30 numbers dialed.
2. Scroll to the number (or name) you want to redial, and press the call key.

## Conference calling

Conference calling is a network service that allows you to take part in a conference call with two other participants.

1. Make a call to the first participant.
2. With the first participant on the line, select *Options* > *New call*.
3. Enter the phone number of the second participant, or select *Search* to retrieve a number from the contacts list. Select *Call*. The first participant is put on hold.
4. When the second participant picks up, press the call key to connect the calls.
5. To end the conference call, select *Options* > *End all calls*, or press the end key.

## ■ Answer calls

### An incoming call

1. With the fold open, press the call key, or select *Answer* to answer the call.
2. Press the end key to reject the call.  
Select *Silence* to mute the ringing tone, then *Dismiss*, or do nothing. The call is eventually diverted to voicemail.  
With your phone set to silent in the profiles menu, select *Dismiss* to divert the call to voicemail.
3. With the fold closed, press the volume key to mute the ringing tone.

# FCC Draft

## Set up your phone

A short press of the voice key answers an incoming call with the loudspeaker.

By default, your phone answers an incoming call when you open the fold. You can change the setting to not answer the call when the fold opens.

In the standby mode, select [Menu > Settings > Call > Answer when fold is opened > On or Off](#).

### Adjust the earpiece volume

Whether in or out of a call, you can scroll the volume key located on the left side of your device up or down to adjust the volume of the earpiece. When you adjust the volume, a bar chart indicates the volume level.

### Answer a call with the keypad locked

To answer a call with the keypad locked, press the call key with the fold open. To answer a call with the fold closed and the keypad locked, press and hold the voice key to answer with the loudspeaker. During the call, all features function as normal. When you end or reject the call, the keypad automatically relocks. See "Keyguard," p. 22.

When the keypad lock is on, calls still may be possible to the official emergency number programmed into your device. Enter the emergency number, and press the call key.

### Loudspeaker



**Warning:** Do not hold the device near your ear when the loudspeaker is in use, because the volume may be extremely loud.

You can use your phone as a loudspeaker during a call.

- To activate the loudspeaker while in a call with the fold open, select [Loudsp.](#)
- To activate the loudspeaker when answering a call with the fold closed, press the voice key.
- To deactivate the loudspeaker during a call, with the fold open, select [Normal](#).

The loudspeaker is deactivated automatically when a call (or a call attempt) ends or when certain enhancements are connected.

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Set up your phone

## Call options

Many of the options you can use during a call are network services. Check with your wireless service provider for more information.

1. Select *Options* during a call to display the following options:

*Loudspeaker* or *Handset*—Activate or deactivate the loudspeaker while in a call.

*New call*—Initiate a conference call. See "Conference calling," p. 20.

*Save*—Save a number while in a call to your contacts list. This option is available only when entering numbers during a call.

*Add to contact*—Add a phone number to an existing contact in your contacts list while in a call. This option is available only when entering numbers during a call.

*End all calls*—Disconnect from all active calls.

*Touch tones*—Enter the numbers, and select *Tones* to send the numbers as tones.

*Contacts*—View the contacts menu.

*Menu*—View the phone menu.

2. Scroll to and select an option to activate the option or enter its submenu.

## ■ **Keypad**

With keypad, you can lock the keypad to prevent keys from being pressed accidentally. The locked keypad unlocks when you receive a call. After the call, the lock automatically reactivates.

With the keypad on, calls still may be possible to the official emergency number programmed into your phone. Enter the emergency number, and press the call key.

### Lock the keypad

Select *Menu* with the center selection key; then press \* within 2 seconds.

### Unlock the keypad

Select *Unlock* with the center selection key; then press \* within 2 seconds.

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Text entry

## 3. Text entry

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You can use two methods for entering text and numbers: standard mode and predictive text mode.

Select [Clear](#) to backspace the cursor and delete a character. Select and hold [Clear](#) to backspace continuously and delete characters.

### ■ Standard mode

Standard mode is the only way to enter text into the contacts list and to rename caller groups.

#### Text (Abc)

- Press a key once to insert the first letter on the key, twice for the second letter, etc. If you pause briefly, the last letter in the display is accepted and your device awaits the next entry.
- Press 0 to enter a space, thereby accepting a completed word.
- Press 1 to insert a period into your message.
- Press \* to display a complete list of special characters.
- Press and hold # to bring up the [Editor settings](#) ([Number mode](#), [Dictionary on](#) or [Dictionary off](#), [Writing language](#)).

#### Numbers (123)

To switch to 123 mode from Abc mode, press and hold # at any message entry screen to bring up the [Editor settings](#) menu list of [Number mode](#), [Dictionary on](#) or [Dictionary off](#), and [Writing language](#). Select [Number mode](#), and the device returns to the message entry screen and switches the Abc icon in the upper left corner of the display to the 123 icon (or back).

#### Punctuation and special characters

While at any text entry screen, press \* to display special characters (press and hold \* if predictive text is on). Press \* again to cycle through all available characters. Scroll to navigate through the list of special characters. With a character highlighted, select [Insert](#) to insert the character into your message.

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## Text entry

### ■ Predictive text mode

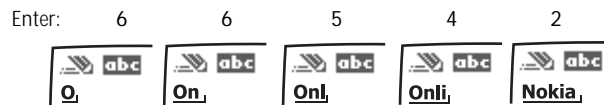
Much faster than the standard mode method, predictive text input enables you to write messages quickly using your keypad and the built-in dictionary. In predictive text mode, your phone predicts the words as you enter them.

#### Activate or deactivate

1. At any text entry screen, select *Options* > *Dictionary on* to activate or *Dictionary off* to deactivate.
2. If you are turning predictive text on, select the language of your choice.

#### Text entry

The following illustration shows your text entry of the word *Nokia* in predictive text mode. With the English dictionary selected, press each of the following number keys once, and the screen will display *Nokia* by predicting the appropriate letter to use based on your keypad entry:



- Press 0 to enter a space, and begin writing the next word.
- If a displayed word is not correct, press \* to see other matches. To return to the previous word in the list of matches, select *Prev*.
- If ? appears after a word, select *Spell* to add the word to the dictionary.
- Press 1 to insert a period into your message.
- Press and hold \* to display special characters. Press \* again to cycle through all available characters.

### ■ Change case and mode

Press # to switch between uppercase, lowercase, and sentence case text. As you press #, the following icons (not the descriptions) appear in the upper left of the display screen:.


Uppercase text: standard mode is on.

Lowercase text: standard mode is on.



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## Text entry

 Sentence case text: standard mode is on. This option is available only at the beginning of a sentence.



Note: You can press # within 2 seconds to switch between standard mode and predictive text mode.



Uppercase text: predictive text is on.



Lowercase text: predictive text is on.



Sentence case text: predictive text is on. This option is available only at the beginning of a sentence.

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Messages

## 4. Messages



If you have subscribed to a message network service, you can send and receive messages to compatible phones also subscribed to a message service. You can also send and receive picture, multimedia, and e-mail messages if supported by your service provider. Also, you can make distribution lists that contain phone numbers and names from your contacts list. See "Text entry," p. 23.

When composing text, picture, or multimedia messages, check the number of characters allowed in the top right corner of the message. Using Unicode characters takes up more space. With Unicode characters in your message, the indicator may not show the message length correctly. Before sending the message, the phone tells you if the message exceeds the maximum length allowed for one message.



**Important:** Exercise caution opening messages. Messages may contain malicious software or otherwise be harmful to your device or PC.



**Note:** When you send a message, your device may display *Message sent*, indicating your device has sent the message to the message center number programmed into your device. This is not an indication that the message has been received at the intended destination. For more details about messaging services, check with your service provider.

### ■ Text messages

#### Compose and send

1. In the standby mode, select *Menu* > *Messages* > *Text messages* > *Create message*.

To go quickly to *Create message*, scroll left in the standby mode.

2. Compose and send a message using the keypad.

Depending on the messaging service enabled, some or all of the following options are available while composing your message:

*Preview*—Preview the message when sending a picture message (only available with a picture inserted).

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## Messages

*Sending options*—*Mark* or *Unmark* the sending options of a single message as *Urgent*, *Delivery note*, *Callback no.*, or *Signature* (not available with a picture inserted). See "Change sending options," p. 31.

*Clear text*—Erase all the text from the message editor.

*Insert picture*—Insert a picture from a templates folder into your message.

*Change picture*—Change the picture in a picture message (only available with a picture inserted).

*Delete picture*—Delete the picture in a picture message (only available with a picture inserted).

*Add-ins*—Add the following objects: *Sound*, *Animation*, and *Picture* (only available with EMS enabled).

*Styles*—Select the following options to set font style and text alignment: *Font type*, *Font size*, and *Text alignment* (only available with EMS enabled).

*Insert contact*—Insert a name from your contacts list into your message.

*Insert number*—Insert a phone number or find a phone number in the contacts list.

*Move*—Select *Drafts* to save the message in the drafts folder; select *Templates* to save the message as one of your predefined templates in the templates folder.

*Exit editor*—Exits the message editor.

*Use template*—Insert a predefined template into your message.

*Insert smiley*—Insert a smiley into your message.

*Insert word* or *Edit word*—Enter or edit the text of a new word that might not appear in the predictive text dictionary (only available with predictive text on).

*Insert symbol*—Insert a special character into your message (only available with predictive text on).

*Writing language*—Choose the language you want to use.

*Dictionary on* or *Dictionary off*—Turn the predictive text on or off.

*Matches*—View matches in the dictionary for the word you want to use (only available with predictive text on and when the same set of key strokes can produce multiple words).

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## Messages

3. To send the message, select *Send to* > *Send to number*, *Send to e-mail*, *Send to distrib. list* (if a distribution list has been created), or *Send to many*. Enter the recipient's phone number or e-mail address; or select *Search* to retrieve a number or e-mail address from your contacts list, and select *OK*.

## Read message

When you receive a message, a notification message and  are displayed.

1. Select *Show* to read the message or *Exit* to dismiss the notification and read the message later from your inbox. See "View saved messages," p. 29.
2. Scroll up or down to view the whole message, if necessary.

## Options

When reading a text message, select *Options* to access some or all of the following options:

*Delete*—Discard the message.

*Use detail*—Access the following three options:

- *Number*—Uses or saves the number. Select *Options* > *Add to contact*, *Send message*, or *Call*.
- *E-mail address*—Lists the e-mail addresses included in the message (available only if the message contains an e-mail address). Select *Save* to save the e-mail address as a new phone book entry or *Options* > *Add to contact* or *Send message*.
- *Web address*—Displays if a URL is included in the message.

*Move*—Save the message to *Archive*, *Templates*, or a folder you have created.

*Forward*—Forward the message to another phone number or e-mail address.

*Lock* or *Unlock*—Lock or unlock the message.

*Save picture*—Save the picture to your *Templates* folder for later use. You can enter a title for the picture, and select *OK*.

*Rename*—Edit the title of the message.

## Reply to message

1. In the standby mode, select *Menu* > *Messages* > *Text messages* > *Inbox* and your desired message, or when you receive a message, select *Show*.

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## Messages

2. Select *Reply* > *Empty screen*, *Original text*, *Template*, or one of the predefined answers; then compose your reply using the keypad.
3. After creating the reply, select *Send*. The sender's phone number or e-mail is used as the default.

## Templates

Templates are short, prewritten messages you can recall and insert into new text messages when you are short on time.

1. In the standby mode, select *Menu* > *Messages* > *Text messages* > *Create message* > *Options* > *Use template*.
2. Select your desired template.
3. Select *Send to* > *Send to number*, *Send to e-mail*, *Send to many*, or *Send to distrib. list* (with a distribution list created).
4. Enter the recipient's phone number or e-mail address, or select *Search* to retrieve a number or e-mail address from your contacts list; and select *Send*.

A distribution list only contains phone numbers of recipients and is selected from a list of predefined groups you create.

## Text message folders

### Save messages

You can save drafts of messages or received messages to an existing folder or to a folder that you have created.

1. Open the received message or create a new message, and select *Options*.
2. To save a received message, select *Move* > *Archive*, *Templates*, or a folder you have created.
3. To save the draft of a message you have created, select *Move* > *Drafts* or *Templates*.

### View saved messages

1. In the standby mode, select *Menu* > *Messages* > *Text messages*.
2. Select the folder containing the message you want to view:  
*Inbox*—Automatically stores any incoming messages.  
*Outbox*—Stores messages that have not been sent

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## Messages

*Sent items*—Stores messages that have been sent.

*Drafts*—Stores messages created as drafts.

*Archive*—Stores messages that you choose to archive, including unread ones.

*Templates*—Stores pictures and prewritten templates. Preloaded templates can be edited and customized.

*My folders*—Allows you to organize your messages by creating custom folders and saving some of your messages here. Select *Options* > *Add folder*, *Rename folder*, or *Delete folder* to add a custom folder or rename or delete a folder you have created.

You can only delete folders created in my folders; the inbox, sent items, archive, and templates folders are protected. When deleting a folder, you are also deleting all messages in the folder.

*Distribution lists*—Stores created distribution lists.

3. When the folder opens, select the message you want to view.

### Distribution list

The distribution list enables you to send messages to a group of contacts. In the standby mode, select *Menu* > *Messages* > *Text messages* > *Distribution lists*.

To create a distribution list, select *New list* with no list created or *Options* > *Create new list* to create additional lists. To populate your list, select *Add new* and a contact from your contacts list.

To use, rename, or modify a distribution list, highlight the distribution list; and select *Options* > *Send message*, *Rename list*, *Clear list*, or *Delete list*.

### Delete messages

If your message memory is full and you have more messages waiting at the network, *No space for new text messages* appears in the standby mode. You can do the following:

- Read some of the unread messages, and delete them individually.
- Delete messages from some of your folders.

### Delete a single message

1. In the standby mode, select *Menu* > *Messages* > *Text messages*.

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## Messages

2. Select the folder containing the message you want to delete.
3. Highlight the message you want to delete.
4. Select *Options > Delete*.
5. Select *Yes* to delete the message or *No* to exit.

### Delete all messages in a folder

1. In the standby mode, select *Menu > Messages > Text messages > Delete messages*.
2. Select the messages you want to delete:
  - All*—Deletes all messages in all of the folders.
  - All read*—Deletes any messages that have been read in all of the folders.
  - All unread*—Deletes any messages that have not been read in all of the folders.
3. Select and *Mark* the folders that have messages you want to delete:
  - Inbox*—Deletes all messages from the inbox folder.
  - Sent items*—Deletes all messages from the Sent items folder.
  - Outbox*—Deletes all messages from the outbox folder.
  - Drafts*—Deletes all messages from the drafts folder.
  - Archive*—Deletes all messages from the archive folder.
  - User defined folders—Deletes all messages from the user defined folder.
4. Select *Done > Yes* to empty the marked folder.

### Change sending options

To change sending options for all future text messages, in the standby mode, select *Menu > Messages > Text messages > Message settings > Sending options* and the setting you want to change:

*Priority*—Set the priority of the note as *Normal* or *Urgent*.

*Delivery note*—Send a note to yourself confirming delivery of the message. Select *On* or *Off*.

*Send callback number*—Send a callback number to the recipient. Select *Off* or enter your desired phone number to send to the recipient as a callback number, and select *OK*.

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## Messages

**Signature**—Select *On* to create a signature to send with text messages or *Off* to turn this feature off.

To change sending options for one message, in the standby mode, select *Menu* > *Messages* > *Text messages* > *Create message* > *Options* > *Sending options*, and *Mark* or *Unmark* the setting you want to change:

**Urgent**—Set the priority of the note as urgent.

**Delivery note**—Send a note to yourself confirming delivery of the message.

**Callback no.**—Enter your desired phone number to send to the recipient as a callback number, and select *OK*.

**Signature**—Create a signature to send with text messages.

## Change message settings

In the standby mode, select *Menu* > *Messages* > *Text messages* > *Message settings* > *Other settings* and the setting you want to change:

**Message font size**—Select *Small font* or *Large font*.

**Message overwriting**—Select *Sent items only*, *Inbox only*, *S. items & Inbox*, or *Off*.



Note: When the message memory is full, your phone cannot send or receive any new messages. To free up the memory, you can select *Message overwriting* to make your phone automatically replace old messages in the inbox and outbox folders when new ones arrive.

**Save sent messages**—Select *Always save*, *Always prompt*, or *Off*.

**Queue msgs. when digital unavailable**—Select *On*, *On prompt*, or *Off*. Messages are stored in the outbox until they can be sent with digital service.

**Auto-playback of sounds**—Select *On* or *Off* (for EMS only).

## ■ Picture messages

Your phone comes with five preloaded pictures. If necessary, you can overwrite any of the preloaded pictures. You can send a text message with pictures attached to compatible phones. However, pictures take up more space than text.

To select your desired picture in the templates folder, in the standby mode, select *Menu* > *Messages* > *Text messages* > *Templates*.

You cannot send a picture message using e-mail.





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## Messages

### Receive and save



Note: Only compatible devices that offer picture message features can receive and display picture messages.

When you receive a picture message, your device beeps and displays a message notification with the messaging icon  in the upper left corner in the standby mode as a reminder. When you have unopened picture messages in your inbox,  appears.

Select *Show* to view the picture message or *Exit* to view the picture message in your inbox later. If you have more than one picture message, scroll to and select the message you want to view. Scroll to view the whole picture if necessary.

To save a received picture in your templates folder, select *Options > Save picture*. Enter a title, and select *OK*. If your templates folder is full of pictures, scroll to and select a picture you want to replace.

### Compose and send

When you insert a standard picture into a message, the number of characters you can add changes as shown in the upper right corner of the display screen.

1. In the standby mode, select *Menu > Messages > Text messages > Create message*.
2. Write the message, and select *Options > Insert picture*.
3. Scroll to a picture, and select *Use* or *View > Insert*.  
To replace with another picture, select *Options > Change picture*, scroll to another picture, and select *Use* or *View > Insert*.
4. Select *Send to > Send to number, Send to many, or Send to distrib. list* if distribution list exists.
5. Enter the phone number of the recipient, or select *Search* to retrieve a number from contacts list.

To view, change, or delete the picture, select *Options > Preview, Change picture, or Delete picture*.

### Multimedia messages

A multimedia message (MMS) can contain text, sound, a picture, and a video clip. Your device supports multimedia messages up to 300 KB. With the maximum size exceeded, the device may not be able to receive the message. Depending on your

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## Messages

network, you may receive a message that includes an Internet address where you can go to view the multimedia message. Pictures are scaled to fit the display area of the device. Your device has a multimedia message viewer for playing messages and a multimedia folder for storing saved messages. When you save the multimedia message, you can use the image as a screen saver or the sound as a ringing tone unless protected by copyright.

The appearance of a multimedia message may vary depending on the receiving device.



**Important:** Exercise caution when opening messages. Messages may contain viruses or otherwise be harmful to your device or PC.

Copyright protections may prevent some images, ringing tones, and other content from being copied, modified, transferred, or forwarded. This function is only available if supported by your service provider or network operator. For availability and a subscription to the multimedia messaging service, contact your service provider or network operator.



**Note:** Only devices that offer compatible multimedia message features can receive and display multimedia messages. Multimedia message objects may contain viruses or otherwise be harmful to your device or PC. Do not open any attachment if unsure of the trustworthiness of the sender.

Multimedia messaging supports the following formats:

- Picture: JPEG, GIF, animated GIF, WBMP, BMP, and PNG
- Sound: SP-MIDI, AAC, AMR audio, QCELP, and monophonic ringing tones
- Video: clips in H.263 format with SubQCIF image size and AMR audio

If a received message contains unsupported elements, these elements may be replaced with *Object format not supported*.

You can receive MMS notifications at anytime; whether you can retrieve MMS depends, as shown in the following:

- While in a call or an active browsing session, you cannot retrieve multimedia messages.
- While in a standalone application such as a game or calendar instead of a browser or voice call, you can retrieve multimedia messages.

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## Messages

### MMS settings

Before you can use the multimedia message feature, you must specify whether you want to receive message at all times or only if you are in your wireless service provider's home system. This is a network service. Check with your service provider for more information.

The default setting of the multimedia message service is on. The appearance of a multimedia message may vary depending on the receiving device.

### **Allow or block multimedia reception**

You can choose to receive all messages, block all messages, or receive messages only when you are in the wireless service provider's home network.

In the standby mode, select *Menu > Messages > Multimedia messages > Message settings > Allow multimedia reception* and one of the following:

*Yes*—Allow all incoming messages.

*In home network*—Allow incoming messages only if you are in the wireless service provider's home system. This is a network service. Check with your service provider for more information.

*No*—Block all incoming messages.

### **Retrieve or reject multimedia messages**

This setting is unavailable with multimedia reception blocked.

In the standby mode, select *Menu > Messages > Multimedia messages > Message settings > Incoming multi-media messages* and one of the following options:

*Retrieve*—Automatically retrieve all messages to your inbox.

*Retrieve manually*—Enable choosing from a notification whether to retrieve a message waiting on the network.

*Reject*—Reject incoming multimedia messages.

When you receive messages, *Multimedia message received* appears.

### **Allow or block advertisements**

This setting is unavailable with multimedia reception blocked.

In the standby mode, select *Menu > Messages > Multimedia messages > Message settings > Allow advertisements > Yes* or *No*.

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## Messages

### Other MMS settings

Other multimedia settings include saving your messages to *Sent items*. In the standby mode, select *Menu > Messages > Multimedia messages > Message settings* and one of the following:

*Save sent messages*—Select *Yes* to save sent multimedia messages to the *Sent items* folder or *No* to discard.

*Delivery reports*—Select *On* to be informed if the message was delivered or *Off* to not be informed.

*Scale image down*—Select *Yes* or *No* to define whether to scale image down.

*Default slide timing*—Set the default time in *mm:ss* format for each slide in an MMS to remain on the screen.

### MMS folders

To use and arrange messages, select *Messages > Multimedia messages* and one of the following:

*Inbox*—Contains received multimedia messages.

*Outbox*—Contains multimedia messages which you have sent and are still waiting to be transmitted, or failed to be sent out.

*Sent items*—Contains sent multimedia messages.

*Saved items*—Contains saved multimedia messages that you can send later.

*Delete messages*—Deletes messages in the *Inbox*, *Outbox*, *Sent items*, or *Saved items* folder.

### Write and send multimedia messages

1. In the standby mode, select *Menu > Messages > Multimedia messages > Create message*.
2. Enter your message text, and select *Options > Insert > Image, Sound clip, New sound clip, Video clip, Slide, Business card, or Calendar note*. The list of available folders in the *Gallery* is displayed.  
Selecting *Business card* displays your contact lists; selecting *Calendar note* shows the calendar.
3. Open the desired folder; scroll to the image, sound clip, or video clip; and select *Options > Insert*.  
The indicator in the message header shows the available memory size left for the message.

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## Messages


Copyright protections may prevent some images, ringing tones, and other content from being copied, modified, transferred, or forwarded.

4. To add a new page or slide to the message, select *Options > Insert > Slide*. This applies only if there is no video clip in the message

Each slide can contain text, one image, and one sound clip. If the message contains several slides, to open the desired slide, select *Previous slide*, *Next slide*, or *Slide list*.

You can also add business cards and calendar notes.

5. To set the time interval between the slides, select *Options > Slide timing*. Enter the time interval in *mm:ss* format, and select *OK*.
6. To move the text to the top or bottom of the message, select *Options > Place text first* or *Place text last* (default).
7. To insert a name from contacts, select *Options > More options > Insert contact* and the desired name.
8. To insert a number, select *Options > More options > Insert number*.
9. Enter the number or search for it in contacts, and select *OK*.
10. To insert a calendar note, select *Options > Insert > Calendar note*.
11. To insert a business card, select *Options > Insert > Business card*.
12. To delete an image, slide, video clip, or sound clip from the message, select *Options > Delete > Image, Sound clip, Video clip, or Slide*.
13. To add a subject to the message, select *Options > More options > Edit subject*, enter a subject, and select *OK*.
14. To view the message or slide presentation before sending it, select *Options > Preview*.
15. To save the message to *Saved items*, select *Options > Move*.
16. To send the message, select *Send to > Phone number, E-mail address, or Many*.
17. Enter the recipient's number or e-mail address, or search for it in contacts, and select *OK*. The message is moved to the outbox folder to be sent.

It takes more time to send a multimedia message than a text message. While sending the multimedia message, your device displays the animated indicator , and you can use other functions on the device. If there is an interruption

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

while sending the message, the device automatically tries to resend it a few times. If this fails, the message remains in the outbox folder, and you can try to manually resend it later. Check your outbox folder for unsent messages.



**Note:** When sending messages, your device may display *Multimedia message sent*, indicating that the message has been sent to the message center number programmed into your device. This is not an indication that the message has been received at the intended destination. For more details about messaging services, check with your network operator.

Sent messages are saved in the sent items folder if you set *Save sent messages* to *Yes*. See "Other MMS settings," p. 36. This is not an indication that the message has been received at the intended destination.

### Read multimedia messages

When a multimedia message is being received,  appears animated in the display along with the percentage display indicating the receiving progress. With the message fully downloaded,  appears in the display, showing the number of messages received (with the light indicator blinking near the bottom of your antenna).

- To view the message immediately, select *Show*; to save the message to the inbox for later viewing, select *Save*; to discard the message, select *Discard*.
- To view a saved message, select *Menu > Messages > Multimedia messages > Saved items*, and scroll to view the message.

While viewing the message, select *Play* to view the entire MMS or *Options* and one of the following:

*View text*—View only the text included in the message.

*Open image*, *Open sound clip*, or *Open video clip*—View or listen to the corresponding file.

*Delete message*—Delete the message you are viewing.


*Forward to no.*, *Forward to e-mail*, *Forward to album* (if supported by operator), or *Forward to many*—Forward the message to a phone number, to an e-mail address, or to multiple recipients.

*Message details*—View the sender's name and phone number, the message center used, reception date and time, and message size and type.

*Save image*, *Save sound clip*, or *Save video clip*—Save the file to the *Gallery*. You must open images, sound clips, and video clips before you can save them.

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If  blinks and *Multimedia me-mory full. view waiting msg.* appears, memory for multimedia messages is full. To view the waiting message, select *Show*. Before you can save the message, delete some of your old messages. See "Delete messages," p. 30.

### Reply to multimedia message

Select *Reply* or *Reply to all* to enter a reply and send it to the original sender and any other message recipients.

### ■ Voice messages

If you subscribe to voice mail, your wireless service provider will furnish you with a voice mailbox number. You need to save this number to your device to use voice mail. When you receive a voice message, your device beeps, displays a message, or both. If you receive more than one voice message, your device shows the number of voice messages received.

### Save voice mailbox number

Your wireless service provider may have already saved your voice mailbox number to your device. Select *OK* to leave the number unchanged.

1. In the standby mode, select *Menu > Messages > Voice messages > Voice mailbox number*. The voice mailbox number is displayed.
2. If the box is empty, enter the voice mailbox area code and number, and select *OK*.

### Call and setup voice mail

1. After you save the voice mailbox number, in the standby mode, press and hold 1.
2. When you connect to voice mail and the prerecorded greeting begins, follow the automated instructions to setup voice mail.

### Listen to voice messages

After you set up voice mail, in the standby mode, press and hold 1; or select *Menu > Messages > Voice messages > Listen to voice messages* to dial the voice mailbox number. When you connect and the prerecorded greeting begins, follow the automated instructions to listen to your voice messages.

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### Automate voice mail

You can insert special characters called dialing codes into phone numbers such as voice mail, and save the number to a 1-touch dialing location. Dialing codes instruct the receiving system to pause, wait, bypass, or accept the numbers that follow them in the dialing string. See "Phone numbers with dialing codes," p. 40.

Voice mail services vary by wireless service provider. The following instructions are examples of common operations. Please check with your wireless service provider for specific instructions on using your voice mail service.

### **Write down voice mailbox number and process**

1. Write down your voice mailbox number.
2. Call and check your voice mail as you normally would.
3. Write down your interaction with the recorded prompts step-by-step. Keep in mind that each voice mail service may vary. However, it should look similar to the following:

Dial 8585551212, pause 5 seconds, press 1, pause 2 seconds, press 1234, and press #.

### **Phone numbers with dialing codes**

Dialing codes instruct the receiving system to pause, wait, bypass, or accept the numbers that follow them in the dialing string. To set up dialing codes, do the following:

1. In the standby mode, select *Menu* > *Contacts* > *1-touch dialing*.
2. Scroll to an *(empty)* 1-touch dialing slot, and select *Assign*.
3. Enter your mailbox phone number, including the area code.
4. Enter any dialing codes as necessary after the entered phone number.  
For example, if you pause for 5 seconds after connecting to voice mail, enter p twice (two times 2.5 seconds) after the voice mailbox number:  
2145551212pp.
5. Enter any remaining pauses or other information that enables you to listen to your messages, and select *OK*.
6. Enter a name (such as voice mail), and select *OK*.

To dial and listen to your voice mail, press and hold the assigned 1-touch dialing key in the standby mode.



# FCC Draft

## Messages

### Insert dialing codes

Press \* repeatedly to cycle through dialing codes. When the desired code appears in the display, pause briefly and the code is inserted into the dialing string.

The following dialing codes are available:

\*—Bypasses a set of instructions.

p—Pauses for 2.5 seconds before sending any numbers that follow.

+—Replaced by the international access code.

w—Waits for you to press the call key before sending the numbers or codes that follow.

### Clear voice mail icon

To clear the voice mail icon from the display, in the standby mode, select [Menu](#) > [Messages](#) > [Voice messages](#) > [Clear voice message icon](#).

### ■ Web messaging

Web messaging is a network service. See "Network Services," p. 6.

If your wireless service provider supports this feature, you can use the minibrowser to check for e-mail messages. In the standby mode, select [Menu](#) > [Messages](#) > [Minibrowser messages](#) > [Connect](#).

See "Mobile web," p. 89 for more information on using the minibrowser in your device to access web pages.

# FCC Draft

Call log

## 5. Call log



Call log stores information about your last 30 missed, received, and dialed calls respectively and adds the total duration of all calls. When the number of calls exceeds the maximum, the most recent call replaces the oldest.

Whether viewing missed, received, or dialed calls, select *Options* to access these menu options:

*Time of call*—Displays the date and time of the call.

*Send message*—Sends a message to the number.

*Use number*—Edits the number and associates a name with the number.

*Save*—Enters a name for the number and saves it to your contacts list.

*Add to contact*—Adds a number to a contact and saves it to your contacts list (available only with the number not yet stored in your contacts list).

*Delete*—Clears the number from memory.

*Call*—Calls the number.

### ■ View missed calls

The missed calls feature does not function with your device switched off. Missed calls are calls you have never answered. To view missed calls, do the following:

1. In the standby mode, select *Menu* > *Call log* > *Missed calls*, or with missed call notification displayed, select *List*.
2. Scroll to a name or number, and select *Options* and an option to view or activate.

### ■ View received calls

Received calls are calls that have been answered.

1. In the standby mode, select *Menu* > *Call log* > *Received calls*.
2. Scroll to a name or number, and select *Options* and an option to view or activate.

### ■ View dialed numbers

Dialed calls are previous numbers you have dialed from your device:

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## Call log

1. In the standby mode, press the call key, or select *Menu > Call log > Dialed numbers*.
2. Scroll to a name or number, and select *Options*.
3. Select an option to view or activate.

### View call times

You can make or receive calls to or from the same number and view up to five calls displayed with the time each call occurred. Your device clock must be set for this feature to work accurately.

1. In the standby mode, select *Menu > Call log > Missed calls, Received calls, or Dialed numbers*.
2. Highlight your desired name or number, and select *Options > Time of call*.
3. Scroll down to view the call times from this number; select *Back* to return to the options list.

### ■ Delete call logs

You can delete any missed, dialed, or received calls from your device memory.

1. In the standby mode, select *Menu > Call log > Delete recent calls*.
2. Select the call type you want to clear: *All, Missed, Received, or Dialed*.

### ■ Call duration

Contact your wireless service provider for the actual calls and services invoice, which may vary depending on network features, rounding off for billing, taxes, and so forth.

You can view the duration of your last call, all your dialed calls, all your received calls, all your calls, and your life timer, as well as clear your timers. Select *Menu > Call log > Call timers > Last call duration, Dialed calls' duration, Received calls' duration, All calls' duration, Life timer, or Clear timers*. After you select *Clear timers*, enter your lock code, and select *OK*. See "Change lock code," p. 72.



Note: All call timers, except the life timer, are reset to zero with *Clear timers* selected.



Note: Some timers, including the life timer, may be reset during service or software upgrades.

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## Call log

To activate the call timer in the standby mode while in a call, select *Details* > *Show call time on display* > *On* or *Off*.

To view the duration of dialed or received calls placed while in the home network or while roaming, select *Details* > *Home* or *Roaming*.

### ■ Data and fax call duration

Data and fax calls are a network service. See "Network Services," p. 6. If your wireless service provider supports this feature, you can view the size or duration of sent or received data and fax calls.



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

In the standby mode, select *Menu* > *Call log* > *Data/fax calls* and one of the following options:

*Last sent data/fax*—View the size (KB) of the last sent data or fax call.

*Last received data/fax*—View the size (KB) of the last received data or fax call.

*All sent data/fax*—View the size (KB) of all sent data and fax calls.

*All received data/fax*—View the size (KB) of all received data and fax calls.

*Duration of last data/fax call*—View the duration time of the last data or fax call.

*Duration of all data/fax calls*—View the duration time of all calls.

*Clear all data/fax logs*—Select *OK* > *Yes* to clear all data or fax logs.

### ■ Minibrowser duration

Minibrowser is a network service. See "Network Services," p. 6. If your wireless service provider supports this feature, you can view the size or duration of sent or received data from the minibrowser.



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

In the standby mode, select *Menu* > *Call log* > *Minibrowser calls* and one of the following options:

*Last sent browser data*—View the size (KB) of the last sent browser data.

*Last received browser data*—View the size (KB) of the last received data.

*All sent browser data*—View the size (KB) of all sent browser data.

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## Call log

*All received browser data*—View the size (KB) of all received browser data.

*Last browser session*—View the duration time of the last browser session.

*All browser sessions*—View the duration time of all browser sessions.

*Clear all browser logs*—Select *OK > Yes* to clear all browser logs.

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C o n t a c t s

## 6. Contacts



The contacts list can hold up to 500 contacts with multiple numbers and text notes for each contact. The amount of numbers and text entries you can save may vary, depending on the length and total number of entries in the contacts list.

### ■ Add new contacts

To access the contacts list in the standby mode, press the right selection key, or select *Menu* > *Contacts* > *Names* if the right selection key on your device has a network operator menu.

#### Save contact name and number

1. In the standby mode, enter the phone number you want to save.
2. Select *Save*.
3. Enter the name, and select *OK*.

#### Save contact number only

1. In the standby mode, enter the phone number you want to save.
2. Select and hold *Options*.

#### Save an entry

1. In the standby mode, select *Menu* > *Contacts* > *Names* > *Options* > *Add new*.
2. Enter the name, and select *OK*.
3. Enter the phone number, and select *OK* > *Back*.

#### Save numbers and text items

You can save different types of phone numbers and short text items per name to the contacts list. The first number you save for any entry is automatically set as the default, or primary number, which you can always change.

1. In the standby mode, scroll down to display your contacts list, and highlight the entry to which you want to add a phone number or text item.

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## Contacts

2. Select *Options > Contact details > Options > Add detail > Number (General, Mobile, Home, Work, or Fax), E-mail address, Web address, Street address, Note, Image, or Tone*.
3. Enter the number or text for the type you have selected, and select *OK*.
4. To change a number type (*General, Mobile, Home, Work, or Fax*), highlight the number, and select *Options > Change type*.

### Change default number

You can also change which phone number is the default (primary) number for the contact entry.

1. In the standby mode, scroll down to select the number you want to change, and select *Options > Contact details*.
2. Scroll to the number you want to set as default, and select *Options > Set as default*.

### Caller groups

You can add contacts list entries to any of five caller groups, and assign a unique ringing tone or graphic to that group. This enables you to identify callers from the group by their unique ringing tone or graphic.

1. To assign an entry in your contacts list to a caller group, scroll to your desired entry in your contacts list, and select *Options > Contact details > Options > Caller groups > Family, VIP, Friends, Business, Other, or No group*.
2. To manage your caller groups, in the standby mode, select *Menu > Contacts > Caller groups > Family, VIP, Friends, Business, or Other* to display the following caller group options:
  - Rename group*—Rename the group to your preference.
  - Group ringing tone*—Set the ringing tone for the group.
  - Group logo*—Turn the graphic for the caller group *On* or *Off*, or *View* the graphic.
  - Group members*—Add or remove members from the caller group.

# FCC Draft

## Contacts

### Set up 1-touch dialing

You can associate any entry in the contacts list with a key from 2–9. To dial those entries, press and hold the assigned key. See "1-touch dialing," p. 64 to activate or deactivate 1-touch dialing.

### Assign a key to 1-touch dialing

1. In the standby mode, select *Menu* > *Contacts* > *1-touch dialing*.
2. Scroll to an *(empty)* 1-touch dialing slot, and select *Assign*.
3. Enter the number (including the area code) and a name for the number, and select *OK*; or select *Search* to retrieve a number from the contacts list.  
If 1-touch dialing is off, the device displays a prompt and asks if you want to turn 1-touch dialing on.
4. Select *Yes* to activate 1-touch dialing.

### Change 1-touch dialing numbers

1. In the standby mode, select *Menu* > *Contacts* > *1-touch dialing*.
2. Scroll to the 1-touch dialing entry you want to change, and select *Options* > *Change*.
3. Enter the new number and a name for the entry, and select *OK*; or select *Search* to retrieve a number from the contacts list.

### Delete 1-touch dialing numbers

1. In the standby mode, select *Menu* > *Contacts* > *1-touch dialing*.
2. Scroll to the 1-touch dialing entry you want to delete, and select *Options* > *Delete* > *Yes*.

## ■ Voice tags

You can dial up to 25 stored numbers using voice dialing.

Before using voice tags, note the following:

- Voice tags are not language-dependent. They depend on the speaker's voice.
- You must say the name exactly as you said it when you recorded it.
- Voice tags are sensitive to background noise. Record voice tags, and use them in a quiet environment.



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## Contacts

- Very short names are not accepted. Use long names and avoid similar names for different numbers.



Note: Using voice tags may be difficult in a noisy environment or during an emergency, so you should not rely on voice dialing in all circumstances.

### Assign a voice tag to an entry

Before you can use voice dialing, you must first assign a voice tag to the number.

1. In the standby mode, scroll to the entry in your contacts list to which you want to assign a voice tag.
2. Select *Options* > *Contact details* > *Options* > *Add voice tag* > *Start*.
3. Speak clearly into the microphone. Do not select *Quit* unless you want to cancel the recording. The device automatically stops recording, and saves and replays the voice tag.



appears next to commands that have voice tags assigned.

### Dial a number

1. In the standby mode, press and hold the right selection key with the fold open, or press and hold the voice key regardless of the fold being open or closed.
2. When you hear several beeps and *Speak now* appears, release the key.
3. Pronounce the voice tag clearly into the microphone.

When the device finds the voice tag, *Found* appears, and the device automatically dials the number. If the device does not locate a number or recognize the voice tag, *No match found* appears.

### Voice tags

1. After you have associated a voice tag to a contact, select *Menu* > *Contacts* > *Voice tags* and your desired voice tag entry.
2. Select *Playback*, *Change*, or *Delete*.

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## Contacts

### ■ Edit contacts list entries

1. In the standby mode, scroll to the entry you want to edit in your contacts list.
2. Select *Options* > *Contact details* > *Options*.
3. Select one of the following options, which may vary depending on whether you are editing a contact listed by phone number or contact name:

*View*—View the phone number of the contact.

*Add detail*—Add more details to the contact: *Name* (only available with no name added), *Number (General, Mobile, Home, Office, or Fax)*, *E-mail address*, *Web address*, *Street address*, *Note*, *Image* (only available with no image added), or *Tone*.

*Edit name*, *Edit number*, *Edit detail*, or *Change image*—Edit an existing contact name, phone number, details, or image attached to the contact.

*Delete*—Delete more details (*Delete number*, *Delete detail*, or *Delete image*) or the entire contact entry (*Delete contact*) of the contact.

*Send message*—Create and send the contact a text message or multimedia message.

*Use number*—Use or save the number (available when you select a contact listed with a contact name). Select *Options* to use the number.

*Set as default*—Change the default number of the contact.

*Change type*—Change the number type to *General*, *Mobile*, *Home*, *Work*, or *Fax*.

*Add voice tag* or *Voice tag*—Add a voice tag to the contact with no voice tag assigned, or select *Playback*, *Change*, or *Delete* with a voice tag assigned.

*Send bus. card*—Send the contact as a business card to another device.

*Caller groups*—Add the contact to an existing caller group.

*1-touch dialing*—Add the contact to your 1-touch dialing list.

4. Edit the option to your preference, and select *OK*.

### ■ Delete contacts entries

To delete all entries in your contacts list, in the standby mode, select *Menu* > *Contacts* > *Delete all contacts*.

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## Contacts

### ■ Access the contacts menu

1. In the standby mode, select *Menu* > *Contacts* and one of the following options:

*Names*—View the entries in your contacts list, and select *Options* > *Contact details*, *Search*, *Add new*, *Delete contact* for your selected entry.

*Delete all contacts*—Delete all entries in your contacts list.

*Settings*—Change the contacts list view or check the memory status of your device.

*1-touch dialing*—View or modify the list of 1-touch dialing numbers.

*Voice tags*—Listen to, modify, or delete a voice tag to a contact in the contacts list.

*My numbers*—View your own phone number.

*Caller groups*—View and edit the properties of any of the caller groups, including *Family*, *VIP*, *Friends*, *Business*, or *Other*.

2. Select an option to activate the feature or access its submenu.

### Search for a name

1. In the standby mode, scroll down to display the contents of your contacts list.
2. Press the key corresponding to the first letter of the name for which you are searching.
3. Scroll to select a contact, and select *Options* > *Contact details* to view the details.

### Configure settings

You can select how the contacts appear in your contacts list and view the amount of memory used or available in your device.

In the standby mode, select *Menu* > *Contacts* > *Settings* > *Scrolling view* to change view of name list or *Memory status* to view the device memory used and remaining.

# FCC Draft

## C o n t a c t s

### ■ Send and receive contacts

You can send and receive an entry in your contacts list using text messaging, if supported by your wireless service provider.

#### Send a business card

You can send a business card as a text message to a compatible phone or other handheld device.

1. Highlight your desired entry from your contacts list, and select *Options* > *Contact details* > *Options* > *Send bus. card* > *Via multimedia* or *Via text message*. *Primary number* or *All details* options appear only if you have more than one number or detail saved to the contact entry.
2. Enter the number for your recipient, or select *Search* to retrieve a number from your contacts list.
3. Select *OK* and the business card is sent.

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## 7. Gallery



You can save pictures, video clips, recordings, and ringing tones to folders in the [Gallery](#) and add new folders as well. You can download images and tones using MMS, SMS, mobile Internet sites, or Nokia PC Suite.



**Note:** Only compatible devices offering compatible multimedia message features can receive and display multimedia messages.

Your device supports a digital rights management system to protect content you have acquired. Content such as a ringing tone, can be protected and associated with certain usage rules, for example, the number of usage times or a certain usage period. Usage rules are defined in the content activation key that can be delivered with the content or delivered separately, depending on your wireless service provider. You may be able to update the activation key. Always check the delivery terms of any content and activation key before acquiring them, as they may be subject to a fee.

Copyright protection may prevent some images, ringing tones, and other content from being copied, modified, transferred, or forwarded.

Your device has about 12 MB of memory for storing files in the [Gallery](#). This memory is not shared with other functions, such as contacts. If the device displays a message that the memory is full, delete some existing files before proceeding.

### ■ Folders

1. In the standby mode, select [Menu](#) > [Gallery](#) > [Images](#), [Video clips](#), [Graphics](#), [Tones](#), [Recordings](#), [Themes](#), or a user-created folder.
2. Select [Open](#) to view a list of the files in the folder or [Options](#) to access the following:
  - [Delete folder](#)—Delete a folder you have created. You cannot delete a preset folder.
  - [Move](#)—Move the selected folder into another folder. After selecting [Move](#), scroll to another folder, and select [Move to](#). You cannot move a preset folder.
  - [Rename folder](#)—Rename a folder you have created. You cannot rename a preset folder.
  - [Details](#)—Show the name, size, and date of creation of the selected folder.

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## Gallery

*Type of view*—Select *List with details*, *List*, or *Grid* to determine how to display the folders and files within them.

*Sort*—Sort the contents of the selected folder by name, date, format, or size.

*Add folder*—Create a new folder.

*Memory status*—Check the available memory for the device handset.

*Activation key list*—View the list of available activation keys. You can delete activation keys if desired.

# FCC Draft

Media

## 8. Media



### Media player

With the media player you can download, view, and play compatible images, audio and video files, and animated images from a variety of sources.

The media player enables you to play streaming videos and streaming audio from a network server. Streaming functionality is a network service and requires network support. Check the availability of these services, pricing, and tariffs with your network operator or the service provider whose service you want to use. Service providers will also give you instructions on how to use their services.

In the standby mode, select *Menu* > *Media* > *Media player* and one of the following:

*Online media*—Connect to the operator's network. This is a network service. Check with your service provider for pricing and information.

*Open Gallery*—Open the *Gallery*. From *Gallery*, you can play stored audio and video files. See "Gallery," p. 53.

*Go to address*—Enter the address of a mobile Internet service, and select *OK*.

### Radio

Your phone has an FM radio that also functions as an alarm clock radio. To listen to the FM radio on your phone, connect a compatible music stand or stereo headset to the connector on the bottom of the phone. The FM radio uses the wire of the headset as an antenna. A compatible headset needs to be attached to the device for the FM radio to function properly. The quality of a radio broadcast depends on coverage of the radio station in that particular area.



**Warning:** Listen to music at a moderate level. Continuous exposure to high volume may damage your hearing. Do not hold the device near your ear when the loudspeaker is in use, because the volume may be extremely loud.

### Turn the radio on and off

1. Connect the phone to a compatible headset or music stand.

# FCC Draft

## Media

2. In the standby mode, select *Menu > Media > Radio*. The channel location number, the name of the radio channel (if you have saved the channel), and the frequency of the radio channel are displayed.  
To use the graphical keys ▲, ▼, ◀, or ▶ on the display, scroll left or right to the desired key, and select it.
3. If you have already saved radio channels, select ▲ or ▼ to scroll to the channel you would like to listen to.  
To select a radio channel location, briefly press the corresponding number keys.
4. To turn off the radio, press the end key, or select *Options > Turn off*.

## Options

With the radio on, select *Options* and one of the following:

*Turn off*—Turn off the radio.

*Save channel*—Save the current station to one of 20 locations (only available with a new station entered).

*Channels*—Scroll up or down to select a channel from 20 locations. With an existing channel highlighted, select *Options > Delete channel* or *Rename* to delete or rename the saved channel.

*Mono output* or *Stereo output*—Listen to the radio in monaural mode (default) or in stereo. Stereo output is available through a stereo enhancement.

*Loudspeaker* or *Headset*—Listen to the radio through the speakerphone or through the headset.

*Set frequency*—Manually enter the frequency of a known radio station.

To set the radio frequency, press \* and use the keypad to enter the frequency of a known radio station.

To adjust the radio volume, press the volume up and down keys.

When an application using a browser connection is sending or receiving data, it may interfere with the radio.

When you place or receive a call, the radio automatically mutes. When the call ends, the radio switches back on.





## Tune and save a radio channel

You can save a preset station to any one of 20 locations in memory.



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## Media

1. When the radio is on, select  or  to change the radio frequency in 0.1 MHz steps, or select and hold  or  to start the channel search. Searching stops when a channel is found.
2. To save the channel, select *Options* > *Save channel*.  
To save the channel to a memory location 1 to 9, press and hold the corresponding number key while the radio is playing. To save the channel in the memory location from 10 to 20, press briefly 1 or 2 and the desired number key 0 to 9.
3. Enter a name for the channel, and select *OK*.
4. Select an (*empty*) location to save the channel.

### ■ Voice recorder

This feature enables you to record pieces of speech or sound with your device and listen to them later. The total available time is 3 minutes with no memos stored. The maximum length of a recording depends on how much memory remains available.

In the standby mode, select *Menu* > *Media* > *Recorder* > *Record* to start the recording or *Recordings list* to manage the folder you have defined for recording storage.

### Record speech or sound

1. In the standby mode, select *Menu* > *Media* > *Recorder* > *Record*.
2. After you hear the recorder start tone, begin recording speech or sound.
3. When you finish recording, select *Stop* and your recording is saved to the *Recordings* folder in the *Gallery*.

### Options

After you have saved the recording to the *Recordings* folder, highlight the recording, and select *Open* to listen to the recording using the earpiece; or select *Options* and one of the following.

*Delete*—Erase the recording.

*Rename*—Change the name of the recording.

*Set as ring tone*—Use your recording as a ringtone (a carrier-dependent feature).

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## Media

**Details**—Show the name, size, and date of creation of the recording.

**Type of view**—Select *List with details*, *List*, or *Grid* to determine how to display the recording

**Sort**—Sort the contents of the recording by name, date, format, or size.

## ■ Media equalizer

The equalizer enhances the sound quality when using the music player by amplifying or attenuating frequency bands. You can access five preset equalizer settings (*Normal*, *Pop*, *Rock*, *Jazz*, and *Classical*) and two customizable settings.

### Activate an equalizer set

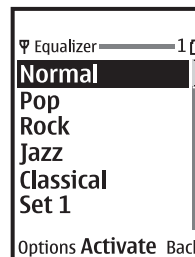
In the standby mode, select *Menu* > *Media* > *Equalizer*, scroll to the desired setting, and select *Activate*.

### Create a custom equalizer set

1. In the standby mode, select *Menu* > *Media* > *Equalizer*.
2. Scroll to *Set 1* or *Set 2*, and select *Options* > *Edit*.

The selected set appears in the display with the bar on the far left highlighted. The bars adjust frequencies, from the lowest (the leftmost bar) to the highest (the rightmost bar). The higher the indicator on a particular bar, the more that frequency is amplified.

3. To adjust the lowest frequency, scroll up and down on the bar.
4. To adjust other frequencies, scroll left or right to the other bars.
5. Repeat steps 3 and 4 to adjust the setting for each frequency; then select *Save*.
6. To rename the setting, select *Options* > *Rename*, enter a new name, and select *OK*.
7. To activate the setting, select *Activate*.



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## 9. Settings



Use this menu to change profiles, themes, main display settings, mini display settings, tone settings, time and date settings, call settings, phone settings, voice commands, enhancement settings, security settings, application settings, network settings, network services, and restore factory settings.

### ■ Profiles

Profiles define how your device reacts when you receive a call or message and how your keypad sounds when you press a key. You can leave ringing options, keypad tones, and other settings for each of the available profiles at their default setting, or customize them to suit your needs.

Profiles are also available for enhancements such as the headset and car kit. See "Enhancement settings," p. 70.

To activate a profile, in the standby mode, select *Menu* > *Settings* > *Profiles* > *Normal*, *Silent*, *Meeting*, *Outdoor*, or *Pager* > *Activate*.

### Customize a profile

You can customize any of the profiles in various ways.

1. In the standby mode, select *Menu* > *Settings* > *Profiles*.
2. Select the profile you want to customize.
3. Select *Customize* and the option you want to customize.

### Set a timed profile

You can use timed profiles to prevent missed calls. For example, suppose you attend an event requiring your device set to *Silent* before the event starts, but you forget to return it to *Normal* until long after the event. A timed profile can prevent missed calls by returning your device to the default profile at a time you specify. You can set timed profiles up to 24 hours in advance.

1. In the standby mode, select *Menu* > *Settings* > *Profiles*.
2. Select the profile you want to activate and *Timed* for timed expiration.
3. Enter the time in hh:mm format for the profile to expire, and select *OK*.

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## Settings

### ■ Themes

A theme contains many elements for personalizing your phone, such as wallpaper, screen saver, color scheme, and a ringing tone.

To choose the theme of your display, in the standby mode, select *Menu* > *Settings* > *Themes* > *Select theme* > *Images, Video clips, Graphics, Tones, Recordings, Themes*, or a user-created folder.

### ■ Main display settings

#### Wallpaper

You can set your device to display a background picture (wallpaper).

1. In the standby mode, select *Menu* > *Settings* > *Main display* > *Wallpaper* > *Select wallpaper* > *Images, Video clips, Graphics, Tones, Recordings, Themes*, or a user-created folder > *Open*.
2. Browse your selected folder containing the graphics or image of your desired wallpaper.
3. When you arrive at the image of your choice, select *Options* > *Set as wallpaper*.
4. To activate or deactivate wallpaper, in the standby mode, select *Menu* > *Settings* > *Main display* > *Wallpaper* > *On* or *Off*.

#### Screen saver

In the standby mode, select *Menu* > *Settings* > *Main display* > *Screen saver* > *On*, *Off*, *Screen saver (Image, Slide set, or Video clip)*, or *Time-out*.

#### Power saver

You can turn the power saver on and off. In the standby mode, select *Menu* > *Settings* > *Main display* > *Power saver* > *On* or *Off*.

#### Color schemes

You can change the color of some display components in your device, such as indicators and signal bars.

# FCC Draft

## Settings

In the standby mode, select [Menu](#) > [Settings](#) > [Main display](#) > [Color schemes](#) and the color scheme of your choice.

### Choose a banner

Banner is a carrier-dependent feature.

If your wireless service provider supports this feature, you can choose whether the display shows the operator logo when the phone is in the idle state.

In the standby mode, select [Menu](#) > [Settings](#) > [Main display](#) > [Banner](#) > [Default](#) or [Customize](#).

### Backlight time-out

You can choose how long to set the backlights on. In the standby mode, select [Menu](#) > [Settings](#) > [Main display](#) > [Backlight time-out](#) > [15 seconds](#) or [Customize](#) (to enter the time-out ranging from 15 seconds to 5 minutes).

## ■ Mini display settings

### Power saver

You can turn the power saver on and off. In the standby mode, select [Menu](#) > [Settings](#) > [Mini display](#) > [Power saver](#) > [On](#) or [Off](#).

## ■ Tone settings

You can adjust the ringing volume, keypad tones, and more for the active profile. See "Customize a profile," p. 59 for more information on profile settings.

Select [Menu](#) > [Settings](#) > [Tones](#) and one of the following:

[Incoming call alert](#)—Select how the device notifies you of an incoming call.

[Ringing tone](#)—Select the ringing tone for incoming calls.

[Ringing volume](#)—Set the volume of your ringing tone.

[Vibrating alert](#)—Turn the vibrating alert [On](#) or [Off](#).

[Message alert tone](#)—Select the tone for received messages.

[Keypad tones](#)—Set the volume of your keypad tones (or turn them off).

[Warning tones](#)—Turn warning and confirmation tones [On](#) or [Off](#).

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## Settings

*Light effects*—Turn the light indicator on or off with *Light effects on* or *Light effects off*.

*Alert for*—Define which caller groups the selected profile will accept or decline. See "Caller groups," p. 47.

## ■ Time and date settings

### Clock

In the standby mode, select *Menu > Settings > Time and date > Clock > Show clock* or *Hide clock, Set the time, Time zone* or *Time format*.

### Date

In the standby mode, select *Menu > Settings > Time and date > Date > Show date* or *Hide date, Set the date, Date format*, or *Date separator*.

### Date and time auto-update

Auto-update is a network service. See "Network Services," p. 6. If your wireless service provider supports this feature, you can allow the digital network to set the clock, which is useful when you are out of your home area, for instance when you have traveled to another network or time zone.

In the standby mode, select *Menu > Settings > Time and date > Auto-update of date & time > On, Confirm first*, or *Off*.

If you use the *Auto-update of date & time* option while outside your digital network, you may be prompted to enter the time manually. Network time will replace the time and date when you reenter your digital network.

If your battery has been removed or has discharged outside the digital network, you may be prompted to enter the time manually (when the battery is replaced or recharged, and you are still outside of the digital network).

## ■ Call settings

### Location info sharing


Location info sharing is only available for the Nokia 3155i device. Location info sharing is a network service. See "Network Services," p. 6.


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## Settings

If your wireless service provider supports this feature, then location info sharing allows the device 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 device. The functionality and accuracy of this feature are dependent on the network, satellite systems, and the agency receiving the information. This feature may not function in all areas or at all times.

In the standby mode, select *Menu > Settings > Call > Location info sharing > Emergency* or *On > Yes* or *No*.

*Emergency*—This is the default profile. The device location information is shared only during an emergency call to the official emergency number programmed into your device. The screen displays  in the upper left hand corner in the standby mode.

*On*—The device location information is shared with the network whenever the device is powered on and activated. The screen displays  in the upper left hand corner in the standby mode.

Location information will always be shared with the network during emergency calls to the official emergency number programmed into the device, regardless of which setting is selected. After placing an emergency call the device remains in emergency mode for 5 minutes. During this time, the location information will be shared with the network. See "Emergency calls," p. 101.

### Anykey answer

Anykey answer enables you to answer an incoming call. Briefly press any key except the right selection key or end key.

In the standby mode, select *Menu > Settings > Call > Anykey answer > On* or *Off*.

### Automatic redial

Occasionally, your network may experience heavy traffic, resulting in a fast busy signal when you dial. With automatic redial activated, your device redials the number (number of times is specified by the network), and notifies you when the network is available.

In the standby mode, select *Menu > Settings > Call > Automatic redial > On* or *Off*.

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### 1-touch dialing

You can activate or deactivate 1-touch dialing. In the standby mode, select [Menu](#) > [Settings](#) > [Call](#) > [1-touch dialing](#) > [On](#) or [Off](#). See "Set up 1-touch dialing," p. 48.

### Automatic service update

Your device is capable of receiving updates to wireless services sent to your device by your service provider. In the standby mode, select [Menu](#) > [Settings](#) > [Call](#) > [Automatic update of service](#) > [On](#) or [Off](#).

### Open fold to answer

By default, your phone answers an incoming call when you open the fold. You can change the default setting to have your phone not answer calls with the fold open.

In the standby mode, select [Menu](#) > [Settings](#) > [Call](#) > [Answer when fold is opened](#) > [On](#) or [Off](#).

### Calling card

If you use a calling card for long distance calls, you can save the calling card numbers in your device. Your device can store up to four calling cards. Contact your calling card company for more information.

### Save information

1. In the standby mode, select [Menu](#) > [Settings](#) > [Call](#) > [Calling card](#).
2. Enter your lock code, and select [OK](#). See "Change lock code," p. 72.
3. Scroll to one of the four card memory locations, and select [Options](#) > [Edit](#) > [Dialing sequence](#) and one of the following sequence types:
  - [Access no. + phone no. + card no.](#)—Dial the access number, the phone number, then the card number (and the PIN, if required).
  - [Access no. + card no. + phone no.](#)—Dial the access number, the card number (and the PIN, if required), then the phone number.
  - [Prefix + phone no. + card no.](#)—Dial the prefix (numbers that must precede the phone number) and phone number you want to dial, then the card number (and the PIN, if required).



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## Settings

4. Enter the required information (access number or prefix and card number), and select *OK* to confirm your entries.
5. Select *Card name*, enter the card name, and select *OK*.

### Make calls

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

1. In the standby mode, select *Menu > Settings > Call > Calling card*.
2. Enter your lock code, and select *OK*. See "Change lock code," p. 72.
3. Select your desired calling card.
4. Press the end key to return to the standby mode; then 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.
5. Press and hold the call key for a few seconds until *Card call* appears.
6. When you hear the tone or system message, select *OK*.

### Abbreviated dialing

Abbreviated dialing creates 4-5 digit numbers for your contacts.

In the standby mode, select *Menu > Settings > Call > Abbreviated dialing > On or Off*.

### International prefix

You can store an international dialing prefix into your device. In the standby mode, select *Menu > Settings > Call > International prefix*.

In the standby mode, when you enter + (press \* twice) at the beginning of a phone number, your device automatically inserts the international dialing prefix that you have stored after you press the call key. See "Insert dialing codes," p. 41.

### Data or fax calls

Data and fax calling is a network service. See "Network Services," p. 6. If your wireless service provider supports this feature, you can set up the device to send or receive data and fax calls with a terminal, such as a PDA or PC, connected.

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## Settings

For better performance during data calls, place the device on a stationary surface. Do not move the device by holding it in your hand during a data call.

For more information on connectivity, refer to the PC/PDA Connectivity Guide which can be downloaded from the Nokia website at <http://www.nokia.com/us>.

1. In the standby mode, select *Menu* > *Settings* > *Call* > *Data/fax calls* > *Incoming data/fax call* and one of the following options:
  - Normal*—The device receives incoming calls as usual.
  - Data calls only*—The device receives only data calls.
  - Fax calls only*—The device receives only fax calls.
2. When finished with receiving the fax or data call, repeat steps 1 and 2, and select *Normal*.

## Data transfer

You can view the transmission speed when sending or receiving data and fax calls.

In the standby mode, select *Menu* > *Settings* > *Call* > *Data/fax calls* > *Data rate display* > *Graphic* or *Off*.

## Call summary

Your device can display the time spent on a call when you hang up. In the standby mode, select *Menu* > *Settings* > *Call* > *Call summary* > *On* or *Off*.

## Ringling tone for no caller ID

You can select a different ringing tone for calls received with no caller ID.

In the standby mode, select *Menu* > *Settings* > *Call* > *Ringling tone for no caller ID* > *On* or *Off*.

## Video ringing tone

Select video ringing tone to replace the default audio ringing tone with the selected video. To select video ringing tone, in the standby mode, select *Menu* > *Settings* > *Call* > *Video ringing tone* > *On* or *Off*.

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## Settings

### ■ Phone settings

#### Phone language

The phone language affects the time and date formats of the clock, alarm clock, and calendar. In the standby mode, select *Menu* > *Settings* > *Phone* > *Phone language* and the language of your choice.

#### Memory status

You can view the size of memory available on your device. In the standby mode, select *Menu* > *Settings* > *Phone* > *Memory status*.

You can view the size of memory available for application installations. In the standby mode, select *Menu* > *Extras* > *Memory*.

#### Automatic keyguard

You can set the keypad of your device to lock automatically after a preset time delay.

1. In the standby mode, select *Menu* > *Settings* > *Phone* > *Automatic keyguard* > *On* or *Off*.
2. If you select *On*, *Set delay*: is displayed.
3. Enter the delay time (in mm:ss format), and select *OK*.

When keyguard is on, it may be possible to dial the emergency number programmed into your device.

#### Touch tones

Touch tones, or DTMF tones, are the tones that sound when you press the keys on your device 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 device keypad, or send them automatically by saving them in your device.

#### Set type

In the standby mode, select *Menu* > *Settings* > *Phone* > *Touch tones* > *Manual touch tones* and one of the following options:

*Continuous*—Used to set the tone sound for as long as you press and hold a key.

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*Fixed*—Used to send tones of the duration you specify in the *Touch tone length* option.

*Off*—Used to turn off tones. No tones are sent when you press a key.

### Set length

You can specify touch-tone length for the *Fixed* option. In the standby mode, select *Menu > Settings > Phone > Touch tones > Touch tone length > Short* (0.1 seconds) or *Long* (0.5 seconds).

### Start-up tone

You can select to have a start-up tone when you first turn on your device. In the standby mode, select *Menu > Settings > Phone > Start-up tone > On* or *Off*.

### Power-down tone

You can select to have a power-down tone when you turn off your device. In the standby mode, select *Menu > Settings > Phone > Switch off tone > On* or *Off*.

### Help text activation

Your device displays brief descriptions for most menu items. When you arrive at a feature or menu, pause for about 14 seconds and wait for the help text to display. If necessary, use the scroll key to page through the full help text.

The default setting for help text is *On*. However, you can turn help text on or off. In the standby mode, select *Menu > Settings > Phone > Help text activation > On* or *Off*.

## ■ Voice commands

Before using voice tags, note the following:

- Voice tags are not language-dependent, but depend on the speaker's voice.
- You must say the name exactly as you said it when you recorded it.
- Voice tags are sensitive to background noise. Record voice tags, and use them in a quiet environment.
- Very short names are not accepted. Use long names, and avoid similar names for different numbers.

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## Settings



Note: Using voice tags may be difficult in a noisy environment or during an emergency, so you should not rely on voice dialing in all circumstances.


### Hands-free operation

You can set as many as 16 voice commands to enable hands-free operation of certain features in your device.

#### Assign a voice tag to a command

Before using voice commands, you must first add a voice tag to the device function.

1. In the standby mode, select *Menu* > *Settings* > *Voice commands*.
2. Select the device function you want to tag: *Profiles*, *Voice mailbox*, *Radio*, *Voice recorder* or *Call log*.
3. If necessary, select an option associated with that function.
4. Select *Start*, and speak the voice tag clearly into the microphone. Do not select *Quit* unless you want to cancel the recording.

The device replays and saves the recorded tag.  appears next to commands with voice tags assigned.

#### Activate a voice command

After you have associated a voice tag with a function in your device, to issue a command, speak the voice tag.

1. In the standby mode, press and hold the right selection key or voice key.
2. With *Speak now* displayed, pronounce the voice tag clearly into the microphone.

With the voice tag found, the device displays *Found*; and plays the recognized voice tag through the earpiece. The function you requested is activated.

#### Options

After you have associated a voice tag to a command, you can select one of the following options:

*Playback*—Listen to the voice command tag.

*Change*—Change the voice command.

*Delete*—Erase the voice command tag.

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## Settings

### ■ Enhancement settings

The enhancement settings menu is shown only if the device has been connected to a compatible enhancement. In the standby mode, select *Menu* > *Settings* > *Enhancements* > *Headset*, *Handsfree*, *Loopset*, *TTY/TDD*, *Music stand*, or *Charger*.

#### Headset



**Important:** The headset may affect your ability to hear sounds around you. Do not use the headset in situations that may endanger your safety.

Select the option of your choice to enter the submenu and modify its settings.

*Default profile*—Choose the profile you want automatically activated with a headset connected.

*Automatic answer*—Answer calls automatically after one ring with a headset connected. Select *On* or *Off*.

#### Hands-free operation

Select the option of your choice to enter the submenu and modify its settings.

*Default profile*—Choose the profile you want automatically activated with your device connected to a car kit.

*Automatic answer*—Answer calls automatically after one ring with a car kit connected. Select *On* or *Off*.

*Lights*—Choose to keep the device lights always on, or to shut off automatically after several seconds. Select *On* or *Automatic*.

#### Loopset

The LPS-4 loopset is recommended for use with your device. Select the option of your choice to enter the submenu and modify its settings.

*Default profile*—Choose the profile you want to be automatically activated when your device is connected to a loopset.

*Automatic answer*—Answer calls automatically after one ring when a loopset is connected. Select *On* or *Off*.

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## Settings

### TTY/TDD

Check with the manufacturer of the TTY/TDD device for a connecting cable that is compatible with the Nokia device. TTY/TDD communications depend on network availability. Check with your wireless service provider for availability and description of services.

### Charger

Select the option of your choice to enter the submenu and modify its settings.

*Default profile*—Choose the profile you want automatically activated with your device connected to the charger.

*Lights*—Choose to keep the device lights always on, or to shut off automatically after several seconds. Select *On* or *Automatic*.

## ■ Security settings

When first accessing the security settings, enter the preset lock code, by default, the last four digits of your phone number. Depending on your wireless service provider, the preset lock code can be a four digit number such as 1234 or 0000. If none of these work, contact your wireless service provider for help.

### Phone lock

The phone lock feature protects your device from unauthorized outgoing calls or unauthorized access to information stored in the device. With phone lock activated, *Phone locked* appears each time you turn your device on or off.

With the device locked, calls may still be possible to the official emergency number programmed into your device.

1. In the standby mode, select *Menu > Settings > Security*.
2. Enter the lock code, and select *OK*. See "Change lock code," p. 72.
3. Select *Phone lock* and one of the following options:
  - Off*—Immediately turns off the device lock feature.
  - Lock now*—Immediately turns on the device lock feature.
  - On power-up*—Turns on the device lock feature the next time you turn the device on.

With *Lock now* selected, you must enter your lock code before the device can function normally. With the lock code accepted, your device functions normally.

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## Settings

[Call not allowed](#) appears if you attempt to place a call with your device locked. To answer a call with phone lock on, select [Answer](#), or press the call key.

### Allow numbers

With phone lock on, the only outgoing calls you can make are to the emergency number programmed into your device (for example, 911) or the number stored in the [Allowed no. when phone locked](#) location:

1. In the standby mode, select [Menu](#) > [Settings](#) > [Security](#).
2. Enter the lock code, and select [OK](#). See "Change lock code," p. 72.
3. Select [Allowed no. when phone locked](#). With an empty folder selected, select [Assign](#), and enter the phone number; or select [Assign](#) > [Search](#) to recall the number from your contacts list. Select [OK](#).

To call the allowed phone number, in the standby mode, scroll down to highlight the number you want to call, or enter it on the keypad, and then press the call key to place the call.

### Change lock code

The preset lock code, by default, is the last four digits of your phone number. Depending on your wireless service provider, the preset lock code can be a four digit number such as 1234 or 0000. If none of these work, contact your wireless service provider for help.

To ensure the security of your device, you may want to change the preset lock code to your own selected four digit number. Avoid using codes similar to emergency numbers such as 911 to prevent accidental dialing of the emergency number.

If you enter an incorrect lock code five times in a row, your device may ask you for the security code. By default, the security code is 12345, a five digit number.



**Note:** With the wrong lock code entered five times in succession, your phone will not accept your correct lock code for 5 minutes, even if you power off the device between incorrect entries.

1. In the standby mode, select [Menu](#) > [Settings](#) > [Security](#).
2. Enter the lock code, and select [OK](#).
3. Select [Change lock code](#).
4. Enter the new lock code (must be 4 characters in length).



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5. Reenter the new lock code for verification, and select *OK*.

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

### Call restrictions

Select call restrictions to block or allow numbers for incoming and outgoing calls. With any numbers entered as allowed numbers, all those entered as blocked numbers are ignored. With a number blocked, the phone blocks any call from it, and send the caller to the voice mail.

1. In the standby mode, select *Menu > Settings > Security*.
2. Enter the lock code, and select *OK*. See "Change lock code," p. 72.
3. Select *Call restrictions*.
4. Select the types of calls you want to restrict:
  - Restrict outgoing calls*—Set restrictions on making calls.
  - Restrict incoming calls*—Set restrictions on receiving calls.
5. Select whether to block or allow numbers:
  - Blocked numbers*—Set the numbers the phone can only block, allowing all the rest.
  - Allowed numbers*—Set the numbers the phone can only call or receive, blocking all the rest.
6. Select one of these options: *Select*, *Add restriction* (unavailable with memory full), *Edit* (unavailable with no number added), or *Delete* (unavailable with no number added).



Note: With restricted calls, you may still call the official emergency number programmed into your device.

### Voice privacy

Voice privacy is a network service. See "Network Services," p. 6. If your wireless service provider supports this feature, the voice privacy feature protects the privacy of your current phone conversation from other callers placing phone calls on your same network.

1. In the standby mode, select *Menu > Settings > Security*.

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2. Enter the lock code, and select *OK*. See "Change lock code," p. 72.
3. Select *Voice privacy* > *On* or *Off*.

### ■ Application settings

1. In the standby mode, select *Menu* > *Settings* > *Application settings*.
2. Scroll to one of the following submenus to activate options for preset or downloaded games or applications.

*Application sounds*—Select *On* or *Off*.

*Application lights*—Select *App. defined* or *Default*.

*Application vibration*—Select *On* or *Off*.

### ■ Network

The menu options you see in your device depend on your service provider's network. The network determines which options actually appear in the device menu. Check with your service provider for more information.

The *Network* menu enables you to customize the way your device chooses a network in which to operate while you are within or outside of your primary or home system. Your device is set to search for the most cost-effective network. If your device cannot find a preferred network, it selects a network automatically based on the option you choose in the *Network* menu.

### Roaming options

You can set your device to roam or search for another network when you are not in your home area.

1. In the standby mode, select *Menu* > *Settings* > *Network* > *Roaming options* and one of the following options:

*Home only*—You can make and receive calls in your home area only.

*Automatic*—The device automatically searches for service in another digital network. With no service found, the device uses analog service. The roaming rate applies when not in the home service area.

2. Select *OK*, if necessary, to confirm the activation.

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## Settings

### Mode

You can choose whether your device uses digital or analog service.

In the standby mode, select *Menu > Settings > Network > Mode* and one of the following service options:

*Digital preferred*—The device works in digital mode but will also work in analog mode with digital mode unavailable.

*Digital only*—The device only works in digital mode.

*Analog only*—The device only works in analog mode.

### ■ Network services

The following features are network services. See "Network Services," p. 6.

### Store a feature code

1. In the standby mode, select *Menu > Settings > Network services > Network feature setting*.
2. Enter the feature code from your service provider (for example, \*633), and select *OK*.
3. Select the type of service that matches the feature code you entered (for example, *Call forwarding*).

The activated feature code is now stored in your device, and you are returned to the *Feature code*: field. Continue entering other feature codes (for example, \*633), or press the end key to return to the standby mode. When you enter a network feature code successfully, the feature becomes visible in the *Network services* menu.

### Call forwarding

Call forwarding tells your network to redirect incoming calls to another number. Call forwarding is a network service and may not work the same in all networks, so contact your wireless service provider for availability.

### Activate

The following options may not all appear in the display. Contact your wireless service provider for more information.

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## Settings

1. In the standby mode, select [Menu](#) > [Settings](#) > [Network services](#) > [Call forwarding](#) and one of the following options:
  - [Forward all calls](#)—Forward all calls to the number you specify.
  - [Forward if busy](#)—Forward incoming calls when you are in a call.
  - [Forward if not answered](#)—Forward incoming calls to another number if you are unable to answer. You can set a delay before forwarding takes place.
  - [Forward if out of reach](#)—Forward incoming calls when your device is off.
2. Select [Activate](#).
3. Enter the number to which your calls, data, or other information will be forwarded, and select [OK](#).

## Cancel

In the standby mode, select [Menu](#) > [Settings](#) > [Network services](#) > [Call forwarding](#) > [Cancel all call forwarding](#). [Cancel all call forwarding](#) may affect your ability to receive voice mail messages. Contact your wireless service provider for specific details.

## Call waiting

If your wireless service provider supports this feature, call waiting notifies you of an incoming call even while you are in a call. You can then accept, reject, or ignore the incoming call.

1. In the standby mode, select [Menu](#) > [Settings](#) > [Network services](#) > [Call waiting](#) > [Activate](#) or [Cancel](#).
2. During a call, select [Answer](#), or press the call key or voice key to answer the waiting call. The first call is put on hold.
3. Press the end key to end the active call.

## Send caller ID

If your wireless service provider supports this feature, you can allow or prevent your number from appearing on the receiving caller ID.

In the standby mode, select [Menu](#) > [Settings](#) > [Network services](#) > [Send my caller ID](#) > [Yes](#) or [No](#).

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### View your phone number

In the standby mode, select *Menu* > *Settings* > *Network services* > *My number selection*.

### ■ Restore factory settings

You can reset some of the menu settings to their original values. Data that you have entered or downloaded is not deleted (for example, entries in your contacts list are not affected).

1. In the standby mode, select *Menu* > *Settings* > *Restore settings*.
2. Enter the lock code, and select *OK*. See "Change lock code," p. 72.



Note: Depending on your wireless service provider, your device may sometimes ask you for the security code (defaulted to 12345) instead of the lock code.

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Organizer

## 10. Organizer




Your device contains features to help organize your everyday life, including an alarm clock, calendar, notes, to-do list, calculator, countdown timer, and stopwatch.

### ■ Alarm clock

If the alarm time arrives with the device switched off, the device switches itself on and starts sounding the alarm tone. If you select *Stop*, the device asks whether you want to activate the device for calls. Select *No* to switch off the device or *Yes* to make and receive calls. Do not select *Yes* when wireless phone use may cause interference or danger.

#### Set or change alarm setting

The alarm clock depends on the device clock, which sounds an alert anytime you specify and even works with the device turned off.

1. In the standby mode, select *Menu* > *Organizer* > *Alarm clock* > *Alarm time* > *On*.
2. Enter the time for the alarm in hh:mm format.
3. Select *am* or *pm* (with *12-hour* format selected), and select *OK. Alarm on* appears briefly in the display, and  appears in the standby mode.

#### Repeat alarm

You can set the alarm to repeat. In the standby mode, select *Menu* > *Organizer* > *Alarm clock* > *Repeat alarm*.

#### Set the alarm tone

You can set which tone to play when the alarm sounds. In the standby mode, select *Menu* > *Organizer* > *Alarm clock* > *Alarm tone* > *Standard*, *Radio*, or *Open Gallery* to choose the tone you want to use.

If you set your alarm to *Radio*, use an accessory that supports FM stereo.

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## Organizer

### Snooze time-out

To set the alarm snooze time, select *Menu > Organizer > Alarm clock > Snooze time-out > 5 minutes, 10 minutes, 15 minutes, 30 minutes, 60 minutes*, or *Other* (to enter up to 60 minutes snooze time).

### Alarm conditions

When the alarm sounds, your device beeps, vibrates (if vibrating alert is on for currently active profile), and the display lights up.

With the device on, select *Stop* to shut the alarm off or *Snooze*. With *Snooze* selected, the alarm stops for 10 minutes, and *Snooze on* appears in the display.

If you do not press a key, the alarms stops (snoozes) for 10 minutes, then sounds again. You can also select *Menu > Organizer > Alarm clock > Snooze time-out* to reset the snooze time.

### Turn an alarm off

In the standby mode, select *Menu > Organizer > Alarm clock > Alarm time > Off*.

## ■ Calendar

The calendar keeps track of reminders, calls you need to make, meetings, and birthdays, which can even sound an alarm for any of these events.

Monthly view provides an overview of the selected month and weeks, enabling you to jump to a specific date. Any days or dates that appear in bold font contain calendar notes such as a meeting or reminder.

### Open

In the standby mode, select *Menu > Organizer > Calendar*, or press the right scroll key. Scroll to move the cursor in some calendar views.

### Go to a date

1. In the standby mode, select *Menu > Organizer > Calendar > Options > Go to date*.
2. Enter the date (mm/dd/yyyy), and select *OK*.

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## Organizer

### Note a specific date

You can apply five types of notes to your calendar. Your device asks for further information depending on which note you choose. You also have the option to set an alarm for any note you select.

1. Go to the date for which you want to set a reminder. See "Go to a date," p. 79.
2. From the monthly view (with the go-to date highlighted), select *Options* > *Make a note* and one of the following note types:
  - Meeting*—Enter a subject, location, and a start and end date and time.
  - Call*—Enter a phone number, a name, and the date and time.
  - Birthday*—Enter the person's name, date and year of birth.
  - Memo*—Enter a subject and a start and end date.
  - Reminder*—Enter the subject and date of your reminder.You are given the option to set an alarm.
3. Enter your note, and select *Save*.

### View notes (day view)

After you have created calendar notes, you can view them.

1. In the standby mode, select *Menu* > *Organizer* > *Calendar*.
2. Scroll to the date containing the note that appears in bold type, and select *View*.

### Options while viewing a list of notes

1. Select *Options* while viewing a day's note to display the following:

The options listed below are available while viewing the header of a note.

  - Make a note*—Create a new note for the selected date.
  - Delete*—Delete the note.
  - Edit*—Edit the note.
  - Move*—Move the note to another date on your calendar.
  - Repeat*—Set the note (except for birthday note) to recur on a regular basis (daily, weekly, biweekly, monthly, and yearly).
  - Go to date*—Jump to another date on your calendar.



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## Organizer

*Go to today*—Jump to the current date on your calendar.

*Send note*—Send the note to another device as a text message or in calendar-to-calendar format by way of multimedia messages or SMS.

*Copy*—Copy the note for you to paste to another date.

*Settings*—Set the date and time, date and time format, the day each week starts and whether you want your notes to autodelete after a specified time.

*Go to to-do list*—Jump to the to-do list on your calendar.

2. Select an option to activate it or enter its submenu.

### Send a note

1. In the standby mode, select *Menu > Organizer > Calendar*.
2. Scroll to the date that appears in bold type, containing the note you want to send, and select *View*.
3. Scroll to the note you want to send, and select *Options > Send note > Send as message (Text message or Multimedia msg.)* or *Via calendar*.
4. If you selected *Via calendar*, enter the number for the recipient, or select *Search* to retrieve a number from the contacts list, and select *OK*.
5. If you selected *Send as message (Text message or Multimedia msg.)*, the note appears as a text message in the display.
  - Select *Send to > Send to number, Send to e-mail, Send to many, or Send to distrib. list*.
  - Enter the number for the recipient, or select *Search* to retrieve a number from the contacts list, and select *Send*.

### Receive notes

When you receive a calendar note in calendar-to-calendar format, your device displays *Calendar note received*.

- To view calendar notes, select *Show*, and if necessary, scroll to view the entire message.
- To save calendar notes after viewing, select *Options > Save*.
- To discard calendar notes after viewing, select *Exit* or *Options > Discard*.

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## Organizer

When you receive a calendar note or text message, a message notification appears in the standby mode. You can save the note in your calendar and set an alarm for any date and time.

### ■ Notes

You can write and save information in *Notes* and send notes using multimedia or text message. In the standby mode, select *Menu > Organizer > Notes*. With no notes created, select *Add note*, create your note, and select *Save* when done. With notes already created, highlight the note you want to use, and select *View* to read or *Options > Make a note, Delete, Edit, Send note (Send as message or Via multimedia)*, or *Delete all notes*.

### ■ To-do list

Use the to-do list feature to keep track of your tasks. You can save a note for a task, select a priority level for the note and mark it as done when you have completed it. You can sort the notes by priority or by date.

#### Add a to-do note

1. In the standby mode, select *Menu > Organizer > To-do list*.
2. If there are no notes, select *Add note*.
3. Enter the subject of the to-do note, and select *Save*.
4. Select *High, Medium*, or *Low* priority.
5. Enter the due date and time to set the alarm.

#### View a to-do note

1. In the standby mode, select *Menu > Organizer > To-do list*.
2. Highlight a to-do note, and select *Options* and one of the following:
  - Add*—Add another note.
  - Delete*—Delete the note.
  - Mark note as done* or *Mark as not done*—Mark a note or task as completed or not; if completed, no more reminders will follow.
  - Sort by deadline*—Sort the notes according to their deadline.

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## Organizer

*Send*—Send the note to another device, as a text or multimedia message, or as a calendar note to another compatible device.

*Go to calendar*—Leave the to-do list, and go to the calendar.

*Save to calendar*—Save the to-do note to a date on your calendar.

*Delete done notes*—Delete all the completed to-do notes.

*Delete all notes*—Delete all the to-do notes in the list.

3. *View* the to-do note, and select *Edit* to edit the note or *Options* to select from the following:

*Deadline*—Set a deadline for the note, listing any uncompleted notes if existing.

*Mark note as done* or *Mark as not done*—Mark a note or task as completed or not; if completed, no more reminders will follow.

*Delete*—Delete the note.

*Edit priority*—Change the priority to high, medium, or low.

*Send*—Send the note to another device, as a text or multimedia message, or as a calendar note to another compatible device.

*Go to calendar*—Leave the to-do list, and go to the calendar.

*Save to calendar*—Save the to-do note to a date on your calendar.

## ■ Calculator

The calculator in your device adds, subtracts, multiplies, divides, calculates the square and the square root, changes the sign of the number entered, and converts currency values.



Note: This calculator, designed for simple calculations, has limited accuracy.

1. In the standby mode, select *Menu* > *Organizer* > *Calculator*.
2. Enter the first number in the calculation. Press # for a decimal point if necessary.  
To change the sign, select *Options* > *Change sign*, or scroll up or down.  
To perform a square or square root calculation, select *Options* > *Square* or *Square root*.

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## Organizer

To cycle through the add (+), subtract (-), multiply (\*), and divide (/) characters, press \*.

3. Enter the second number in your calculation.
4. Select *Equals* to complete calculation or *Options* if more functions are required.

## Currency converter

You can convert foreign currency to domestic, or vice versa, directly in the standby mode or from the *Calculator* menu.



**Note:** When you change base currency, you must enter the new rates because all previously set exchange rates are set to zero.

1. In the standby mode, select *Menu* > *Organizer* > *Calculator* > *Options* > *Exchange rate* > *Foreign units in home units* or *Home units in foreign units*.  
*Foreign units in home units*—The number of home units cost to make one unit of foreign currency.  
*Home units in foreign units*—The number of foreign units cost to make one unit of your home currency.
2. Enter the exchange rate (press # to insert a decimal), and select *OK*.
3. In the standby mode, enter the currency amount to be converted.
4. Select *Options* > *To home* or *To foreign*.  
*To home*—converts foreign currency to domestic currency.  
*To foreign*—converts domestic currency to foreign currency.
5. If you do not enter an exchange rate, the device will prompt you to do so. Select *OK*. You can edit the exchange rate at anytime.

## Countdown timer

The countdown timer in your device enables you to enter a specific time (up to 99 hours and 59 minutes). When the time runs out, your device sounds an alarm.



**Note:** The countdown timer only works when the device is on. When you turn off your device, the timer is no longer active.

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## Organizer

### Set the timer

1. In the standby mode, select *Menu > Organizer > Timer > Normal timer, Interval timer, or Settings.*

Use *Normal timer* to measure the countdown time for tasks that have one period (timer name). Select *Interval timer* to save sets of countdown times with more than one period.

2. Enter the time (in *hh:mm:ss* format), and select *OK*.
3. Enter a note for the timer, and select *Start*.

 appears in the standby mode with the countdown timer set. When the time runs out, your device sounds an alarm, displays the timer note, vibrates (if set), and flashes its lights.

Press any key during the alarm to stop the alarm. After 30 seconds the timer alert stops automatically.

### Change the time

After you have set the timer, you can change the time.

1. In the standby mode, select *Menu > Organizer > Timer > Change time.*
2. Enter the new time, and select *OK*.
3. Leave the note as it was, or enter a new note, and select *Start*.

### Interrupt the timer

After you have set the timer, you can stop the timer. In the standby mode, select *Menu > Organizer > Timer > Stop timer.*

## Stopwatch

You can use the stopwatch in your device to track time. The stopwatch displays time in hours, minutes, seconds, and fractions of a second in *hh:mm:ss.s* format.

Using the stopwatch or allowing it to run in the background when using other features increases the demand on battery power and reduces the battery life.

### Measure time

1. In the standby mode, select *Menu > Organizer > Stopwatch > Split timing or Lap timing > Start.* The running time is displayed.

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## Organizer

*Split timing*—You can use the split time function for such things as a long distance race when you need to pace yourself. Select *Split* to note the lapsed time. The timer continues to run and the split time appears below the running time. Each time you select *Split*, the new measured time appears at the beginning of the list.

*Lap timing*—You can use the lap time function when you want to track how long it takes to complete each cycle or lap. Select *Lap* to note the lap time. The clock stops, then starts immediately from zero. The lap time appears below the running time. Each time you select *Lap*, the new measured time appears at the beginning of the list.

2. Select *Stop* to end the timing and display the total time or *Stop > Options > Start* or *Reset* to continue or reset timing.


## Lap and split times

To save a time while the clock is running, select *Stop > Save*, enter a name for the measurement, and select *OK*. If you do not enter a name, the total time is used as the default title for the lap or split time.

To view a saved time, in the standby mode, select *Menu > Organizer > Stopwatch > Show last time* or *View times*.

To delete a saved time from *Stopwatch*, select *View times* and the time to delete, and select *Delete > Yes*; or select *Delete times > One by one* or *Delete all*.

## Operation note

If you press the end key and return to the standby mode, the clock continues to run in the background, and  appears in the upper left corner.

To return to the stopwatch screens, in the standby mode, select *Menu > Organizer > Stopwatch > Continue*. To stop the clock, select *Stop*.

## Options

You can choose the following options when you use the stopwatch:

*Continue*—Appears when the stopwatch is working in the background.

*Show last time*—Appears when you have saved a split or lap time and displays the last time saved.

*Split timing*—Asks if you want to discontinue previous timing.

*Lap timing*—Asks if you want to discontinue previous timing.

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## Organizer

*View times*—Enables you to browse the saved times.

*Delete times*—Enables you to delete any saved times. You can delete the saved times one by one or all at once.

# FCC Draft

Extras

## 11. Extras

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Challenge yourself or a friend to one of the fun games in your device. Some menus listed are network services. Contact your wireless service provider for more information. To download games or applications, select either the [Games](#) or [Collection](#) menu.

### ■ Games

In the standby mode, select [Menu](#) > [Extras](#) > [Games](#) to display the games on your device: 3D Snow Boarding, Nokia Puzzle, Club Pinball, and Bounce.

### ■ Collection

Collections is a network service. See "Network Services," p. 6. If your wireless service provider supports this feature, you will find useful applications pre-installed on your device. Also, you can manage and download new Java applications that may be offered by your wireless service provider.

An application may require a few seconds to load. When you open an application, wait for the launch screen to disappear. At that point, the application is ready.

In the standby mode, select [Menu](#) > [Extras](#) > [Collection](#) and an application.



**Note:** Only install applications from sources that offer adequate protection against harmful software.

### ■ Memory

You can view the size of memory available for games or application installations.

In the standby mode, select [Menu](#) > [Extras](#) > [Memory](#).



**Note:** Only install applications from sources that offer adequate protection against harmful software.



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Mobile web

## 12. Mobile web



Minibrowser is a network service. See "Network Services," p. 6.

Your device has a built-in browser you can use to connect to selected services on the mobile internet. If your wireless service provider supports this feature, then you can view weather reports, check news or flight times, view financial information, and much more. The web browser on your device can display WAP-based content.

Your device may have some bookmarks loaded for sites not affiliated with Nokia. Nokia does not warrant or endorse these sites. If you choose to access them, you should take the same precautions, for security or content, as you would with any internet site.

The security icon does not indicate that the data transmission between the gateway and the content server (or place where the requested resource is stored) is secure. The service provider secures the data transmission between the gateway and the content server.

### ■ Mobile Internet access

Because mobile Internet content is designed to be viewed from your device, your wireless service provider is now your mobile Internet service provider as well.

It is likely that your wireless service provider has created a home page and set up your browser to go to this page when you log on to the mobile Internet. At your service provider's home page, you may find links to a number of other sites.

It should not be necessary to manually configure the browser on your device. Normally this is done by your wireless service provider after you subscribe to the feature. Contact your wireless service provider if you have problems using the browser.

### ■ Sign on

In the standby mode, select *Menu > Mobile web > Minibrowser > Connect* or the operator provided menu item.

After a brief pause, your device attempts to connect to your wireless service provider's home page. If you receive an error message, your device may not be set up for browsing. Contact your wireless service provider to make sure that your device is configured properly.

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Mobile web

## ■ Navigate the mobile Internet

Since your device screen is much smaller than a computer screen, mobile Internet content is displayed differently than you may be accustomed to seeing. This section contains guidelines for using the keys to navigate a WAP site.

### Phone keys

- Press the power key to display the minibrowser home screen.
- Scroll up or down to browse the WAP site.
- Select an item.
- To enter letters and numbers, press a key from 0–9.
- To enter special characters, press \*.

### Receive a call while online

If your data connection is not active, you may still be able to receive a voice call while using the WAP browser.

- To answer the incoming call, press the call key.
- To reject the incoming call, press the end key (a carrier-dependent feature).

While in the voice call, you are not able to load new pages in the browser.



**Note:** If your data connection is active, the incoming calls are automatically forwarded to voice mail, depending on your carrier.

### Make an emergency call while online

You can end your data connection and make an emergency call.

1. To close your mobile Internet connection, press the end key.
2. Press the end key as many times as needed to clear the display and ready the device for calls.
3. Enter the emergency number for your present location (for example, 911). Emergency numbers vary by location.
4. Press the call key.

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Mobile web

## Clear the cache and disconnect

A cache is a memory location that is used to store data temporarily. If you have tried to access or have accessed confidential information requiring passwords, empty the cache after each use. The information or services you have accessed are stored in the cache. To empty the cache while in the browser menu, select **Navigate > Advanced > Clear > Cache** from the home page. To clear the cache and power off your device, press and hold the power key.

To close your mobile internet connection while browsing, press the end key.

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PC connectivity

## 13. PC connectivity

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### ■ USB data transfer

You can transfer data such as music, photos, and videos from your device to a compatible PC or from a compatible PC to your device using a DKU-2 USB data cable. The cable is connected to your device correctly when the arrowhead points toward the display screen. Disconnect the USB data cable from the device to make a call.

Use the Nokia Audio Manager software to handle your music files, and transfer them from the PC to your device. See "Nokia PC Suite," p. 93.

### Transfer with Windows Explorer

After you have installed the Nokia Audio Manager, it is possible to use Windows Explorer to transfer music, photo, and video files to your device and from your device to your PC.

1. Connect your PC and your device with a DKU-2 USB cable. *Data enhancement connected* is displayed on your device.
2. Open Windows Explorer. Your device appears as a local drive (named by Nokia 3155, Nokia 3155i, and Nokia 3152) with a drive letter assigned to it.
3. Click on the folders to display a window that shows the contents of the folder on the device.
4. Open a second instance of Windows Explorer, and display the contents of the folder on your PC where you have MP3 files, photo files, or video files stored.
5. Select the files on your PC that you want to transfer to the device.
6. Drag and drop the files from the second window into the first window, and place them in a folder.
7. The files are transferred to the device and can be played or accessed by the media player.

If you select files that require more memory than the memory capacity of the device, an error note appears. Deselect some of the files until the selected files fit the memory.

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## PC connectivity

8. Disconnect the USB cable by double-clicking the green arrow on the taskbar at the bottom of your PC screen. A pop-up window displays **Unplug or Eject Hardware**.
9. Click on USB device in the hardware devices window. A pop-up window displays **Stop a Hardware device**.
10. Highlight **USB device** and click **OK**. The pop-up window displays **Safe to Remove Hardware**, with The 'USB Device' device can now be safely removed from the system. Select **OK**.



**Important:** To ensure that all memory card operations are completed in a controlled way, do not unplug the connectivity cable until Windows notifies you that it is safe to do so. Uncontrolled completion of the memory card operations may cause the memory card and the information stored on it to become corrupted. A corrupted memory card may have to be formatted before it can be used again. When a memory card is formatted, all information on the card is permanently lost.

## ■ Nokia PC Suite

Nokia PC Suite software is available for the Nokia 3155, Nokia 3155i, and Nokia 3152 phones. Nokia PC Suite is a collection of powerful tools that you can use to manage your device features and data. Each component is a separate program that includes online helps. Nokia PC Suite software, installation instructions, and other documentation, which are provided free of charge and can be downloaded from the software downloads of the Nokia web site: [www.nokia.com/us](http://www.nokia.com/us).

Some of the features in your device require network support. Contact your service provider for availability and configuration instructions.

- Nokia Image Converter makes images usable for multimedia messages or wallpapers and transfers them to your device.
- Nokia Sound Converter edits polyphonic ringing tones to be compatible with your device and transfers them to your device.
- Nokia Content Copier copies information or backs up information from your device to the PC or to another compatible Nokia device.
- Nokia Phone Editor sends text messages and edits the contact directory and message settings of your device.

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## PC connectivity

- Nokia PC Sync synchronizes the contacts directory and calendar between your device and a compatible PC.
- Nokia Connection Manager selects the connection type between the PC and the device.
- Nokia Phone Browser copies images and tones from your device to your PC and vice versa.

Copyright protection may prevent some images, ring tones, and other content from being copied, modified, transferred, or forwarded.

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Enhancements

## 14. Enhancements



Check the model number of any charger before use with this device. This device is intended for use when supplied with power from AC-3 or AC-4.



**Warning:** Use only batteries, chargers and enhancements approved by Nokia for use with this particular model. The use of any other types may invalidate any approval or warranty, and may be dangerous. For availability of approved enhancements, please check with your dealer.

A few practical rules about accessories and enhancements are as follows:

- Keep all accessories and enhancements out of the reach of small children.
- When you disconnect the power cord of any accessory or enhancement, grasp and pull the plug, not the cord.
- Check regularly that enhancements installed in a vehicle are mounted and are operating properly.
- Installation of any complex car enhancements must be made by qualified personnel only.

Power:

- Standard 1070 mAh Li-Ion Battery (BL-6C)
- Standard Travel Charger (AC-3)
- Travel Charger (AC-4)
- Mobile Charger (DC-4)
- Charger Adapter (CA-44)

Use the CA-44 charger adapter to connect the phone with Nokia chargers with a larger barrel size, including ACP-7, ACP-8, ACP-9, ACP-12, AC-1 (retractable charger), and LCH-12 (mobile charger).

Go to [www.nokia.com/phones](http://www.nokia.com/phones) for more information about enhancements.

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Reference information

## 15. Reference information

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### ■ Battery information

Your device is powered by a rechargeable battery. 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 talk and standby times are noticeably shorter than normal, buy a new battery. Use only Nokia approved batteries, and recharge your battery only with Nokia approved chargers designated for this device.

Unplug the charger from the electrical plug and the device when not in use. Do not leave the battery connected to a charger. Overcharging may shorten its lifetime. If left unused, a fully charged battery will lose its charge over time. Temperature extremes can affect the ability of your battery to charge.

Use the battery only for its intended purpose. Never use any charger or battery that is damaged.

Do not short-circuit the battery. Accidental short-circuiting can occur when a metallic object such as a coin, clip, or pen causes direct connection of the positive (+) and negative (-) terminals of the battery. (These look like metal strips on the battery.) This might happen, for example, when you carry a spare battery in your pocket or purse. Short-circuiting the terminals may damage the battery or the connecting object.

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 device with a hot or cold battery may not work temporarily, even when the battery is fully charged. Battery performance is particularly limited in temperatures well below freezing.

Do not dispose of batteries in a fire! Dispose of batteries according to local regulations. Please recycle when possible. Do not dispose as household waste.

### ■ Nokia battery authentication guidelines

Always use original Nokia batteries for your safety. To check that you are getting an original Nokia battery, purchase it from an authorized Nokia dealer, look for the Nokia Original Enhancements logo on the packaging, and inspect the hologram label using the following steps:



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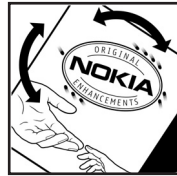
## Reference information

Successful completion of the four steps is not a total assurance of the authenticity of the battery. If you have any reason to believe that your battery is not an authentic original Nokia battery, you should refrain from using it and take it to the nearest authorized Nokia service point or dealer for assistance. Your authorized Nokia service point or dealer will inspect the battery for authenticity. If authenticity cannot be verified, return the battery to the place of purchase.

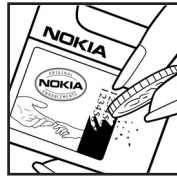
### Authenticate hologram



1. When looking at the hologram label, you should see the Nokia connecting hands symbol from one angle and the Nokia Original Enhancements logo when looking from another angle.



2. When you angle the hologram, to the left, right, down, and up sides of the logo, you should see 1, 2, 3, and 4 dots on each side respectively.



3. Scratch the side of the label to reveal a 20-digit code, for example, 12345678919876543210. Turn the battery so that the numbers are facing upwards. The 20-digit code reads starting from the number at the top row followed by the bottom row.

4. Confirm that the 20-digit code is valid by following the instructions at [www.nokia.com/batterycheck](http://www.nokia.com/batterycheck).

### What if your battery is not authentic

If you cannot confirm that your Nokia battery with the hologram label is an authentic Nokia battery, please do not use the battery. Take it to the nearest authorized Nokia service point or dealer for assistance. The use of a battery that is not approved by the manufacturer may be dangerous and may result in poor performance and damage to your device and its enhancements. It may also invalidate any approval or warranty applying to the device.

To find out more about original Nokia batteries, visit [www.nokia.com/battery](http://www.nokia.com/battery).

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## Care and maintenance

### Care and maintenance

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Your device is a product of superior design and craftsmanship and should be treated with care. The suggestions below will help you protect your warranty coverage and enjoy your device for many years.

- Keep the device and all of its parts and accessories out of the reach of small children.
- Keep the device dry. Precipitation, humidity and all types of liquids or moisture can contain minerals that will corrode electronic circuits. If your device does get wet, remove the battery and allow the device to dry completely before replacing it.
- Do not use or store the device in dusty, dirty areas. Its moving parts and electronic components can be damaged.
- Do not store the device in hot areas. High temperatures can shorten the life of electronic devices, damage batteries, and warp or melt certain plastics.
- Do not store the device in cold areas. When the device returns to its normal temperature, moisture can form inside the device and damage electronic circuit boards.
- Do not attempt to open the device other than as instructed in this guide.
- Do not drop, knock, or shake the device. Rough handling can break internal circuit boards and fine mechanics.
- Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the device.
- Do not paint the device. Paint can clog the moving parts and prevent proper operation.
- Use a soft, clean, dry cloth to clean any lenses (such as camera, proximity sensor, and light sensor lenses).
- Use only the supplied or an approved replacement antenna. Unauthorized antennas, modifications, or attachments could damage the device and may violate regulations governing radio devices.
- Use chargers indoors.

All of the above suggestions apply equally to your device, battery, charger, or any enhancement. If any device is not working properly, take it to the nearest authorized service facility for service.

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Additional safety information

## Additional safety information

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Your device and its enhancements may contain small parts. Keep them out of the reach of small children.

### ■ Operating environment

Remember to follow any special regulations in force in any area and always switch off your device when its use is prohibited or when it may cause interference or danger. Use the device only in its normal operating positions. This device meets RF exposure guidelines when used either in the normal use position against the ear or when positioned at least 2.2 cm (7/8 inches) away from the body. When a carry case, belt clip or holder is used for body-worn operation, it should not contain metal and should position the device the above-stated distance from your body.

In order to transmit data files or messages, this device requires a good quality connection to the network. In some cases, transmission of data files or messages may be delayed until such a connection is available. Ensure the above separation distance instructions are followed until the transmission is completed.

### ■ Medical devices

Operation of any radio transmitting equipment, including wireless 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 device 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.

### PACEMAKERS

Pacemaker manufacturers recommend that a minimum separation of 6 inches (15.3 cm) be maintained between a wireless device or 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. To minimize the potential for interference, persons with pacemakers should

- Always keep the device more than 6 inches (15.3 cm) from their pacemaker when the device is switched on

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## Additional safety information

- Not carry the device in a breast pocket
- Hold the device to the ear opposite the pacemaker to minimize the potential for interference.

If you have any reason to suspect that interference is taking place, switch off your device immediately.

## HEARING AIDS

Some digital wireless devices may interfere with some hearing aids. If interference occurs, consult your service provider.

## ■ Vehicles

RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles such as electronic fuel injection systems, electronic antiskid (antilock) braking systems, electronic speed control systems, air bag systems. For more information, check with the manufacturer or its representative of your vehicle or any equipment that has been added.

Only qualified personnel should service the device, or install the device in a vehicle. Faulty installation or service may be dangerous and may invalidate any warranty that may apply to the device. Check regularly that all wireless device 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 device, its parts, or enhancements. For vehicles equipped with an air bag, remember that an air bags inflate with great force. Do not place objects, including installed or 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 wireless device while in the air. 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.

## ■ Potentially explosive environments

Switch off your device when in any area with a potentially explosive atmosphere and obey all signs and instructions. Potentially explosive atmospheres include areas where you would normally be advised to turn off your vehicle engine. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death. Switch off the device at refuelling points such as near gas pumps at service stations. Observe restrictions on the use of radio equipment in fuel depots, storage, and distribution areas, chemical plants or where blasting operations are in progress. Areas with a potentially explosive atmosphere are

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## Additional safety information

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), and areas where the air contains chemicals or particles such as grain, dust or metal powders.

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

### ■ Emergency calls



**Important:** Wireless phones, including this device, operate using radio signals, wireless networks, landline networks, and user-programmed functions. Because of this, connections in all conditions cannot be guaranteed. You should never rely solely on any wireless device for essential communications like medical emergencies.

To make an emergency call, make sure your device is properly charged before attempting any emergency calls. If your battery becomes empty, you cannot receive or make calls, including emergency calls and must wait a few minutes after the charging begins to place your call.

1. If the device is not on, switch it on. Check for adequate signal strength. Some networks may require that a valid UIM (CDMA SIM) card is properly inserted in the device.
2. Press the end key as many times as needed to clear the display and ready the device for calls.
3. Enter the official emergency number for your present location, and press the call key. Emergency numbers vary by location

If certain features are in use, you may first need to turn those features off before you can make an emergency call. If the device is in an offline or flight mode you must change the profile to activate the device function before you can make an emergency call. Consult this guide or your service provider. When making an emergency call, give all the necessary information as accurately as possible. Your wireless device 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 GUIDELINES FOR EXPOSURE TO RADIO WAVES.

Your mobile device is a radio transmitter and receiver. It is designed and manufactured not to exceed the limits for exposure to radio frequency (RF) energy recommended by international guidelines (ICNIRP). These limits establish permitted levels of RF energy for the general population. The guidelines are based

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on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards and guidelines include a substantial safety margin designed to assure the safety of the public, regardless of age and health and to account for any variations in measurements.

The exposure guidelines for mobile devices employ a unit of measurement known as the Specific Absorption Rate or SAR. The SAR limit stated in the international guidelines is 2.0 watts/kilogram (W/kg) averaged over ten grams of tissue. Tests for SAR are conducted using standard operating positions with the device transmitting at its highest certified power level in all tested frequency bands. The actual SAR level of an operating device can be well below the maximum value because the device is designed to use only the power required to reach the network. That amount changes depending on a number of factors such as how close you are to a network base station. The highest SAR value when tested according to international testing procedures for use at the ear is 0.84 W/kg (for Nokia 3155/3155i) or 0.86 W/kg (for Nokia 3152).

SAR values may vary depending on national reporting and testing requirements and the network band. Use of device accessories and enhancements may result in different SAR values. Additional SAR information may be provided under product information at [www.nokia.com](http://www.nokia.com).

USA and Canada: The SAR limit of USA (FCC) and Canada (IC) is 1.6 W/kg averaged over one gram of tissue. This device model has also been tested against this SAR limit. The highest SAR value reported under this standard during product certification for use at the ear is 1.22 W/kg (for Nokia 3155/3155i) or 1.25 W/kg (for Nokia 3152), and when properly worn on the body is 0.78 W/kg (for Nokia 3155/3155i) or 0.73 W/kg (for Nokia 3152). Information about this device can be found on the FCC's website at <http://www.fcc.gov/oet/fccid> by searching the equipment authorization system using FCC ID QMNRM-41 for Nokia 3155/3155i or QMNRM-61 for Nokia 3152.

## ■ Technical information

Type designation—RM-41 (for Nokia 3155/3155i) and RM-61 (for Nokia 3152)

Dimensions—Width, 45.5 mm; length, 84.8 mm; depth, 24.5 mm

Weight—84.4 g without BL-6C Li-Ion Battery

Volume—86 cm<sup>3</sup>

Wireless networks—CDMA 800 and 1900 MHz, AMPS, and GPS

Frequency range (Tx)—AMPS: 824.04–848.97 MHz, PCS:

1851.25–1908.75 MHz, Cellular: 824.70–848.37 MHz

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Frequency range (Rx)—AMPS: 869.04–893.97 MHz, PCS:  
1931.25–1988.75 MHz, Cellular: 869.70–893.37 MHz  
GPS frequency—1575.42 MHz

### ■ Battery information

This section provides information about battery charging times with the Travel Charger (AC-4) and the Standard Travel Charger (AC-3), talk and standby times. Be aware that the information in this section is subject to change. For more information, contact your service provider.

#### Charging times

The following charging times are approximate with the BL-6C 1070 mAh Li-Ion battery:

Travel Charger (AC-4): Up to 1 hour 35 minutes

Standard Travel Charger (AC-3): Up to 3 hours 45 minutes

#### Talk and standby times

Operation times are estimates only and depend on signal strength, phone use, network conditions, features used, battery age and condition (including charging habits), temperatures to which the battery is exposed, and other factors.

Talk time: 3.5 hours (digital)

Standby time: 10 days

### ■ Patent information

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

5889770	5802465	5991627	5754976	6078570	6009328	6556824
6148209	5596571	5699482	5701392	5924026	5930233	6775548
6072787	6128322	4969192	5859843	6510148	5793744	

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### ■ 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:



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- 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

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- 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

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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 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

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7725 Woodland Center Blvd., Ste. 150  
Tampa, FL 33614  
Telephone: 1-888-NOKIA-2U (1-888-665-4228)  
Facsimile: (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 accessories is specifically defined within their own warranty cards and packaging.

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

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*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 device 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,

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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 device 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.

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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 nonemergency 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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## 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>

### Consumer Update on Wireless Phones

U.S. Food and Drug Administration

#### 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.



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### 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 radio frequency 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

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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 radio frequency energy (RF) because of the short distance between the device 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 device 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 radio frequency 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

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## **A d d i t i o n a l   s a f e t y   i n f o r m a t i o n**

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 device 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).

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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.

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### 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,

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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

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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.nrbp.org.uk/>

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