Nokia 6111 User Guide

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We, NOKIA CORPORATION declare under our sole responsibility that the product RM-82 is in conformity with the provisions of the following Council Directive: 1999/5/EC.
A copy of the Declaration of Conformity can be found from
http://www.nokia.com/phones/declaration_of_conformity/.

$C\epsilon$434

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FCC/INDUSTRY CANADA NOTICE
Your phone may cause TV or radio interference (for example, when using a telephone in close proximity to receiving equipment). The FCC or Industry Canada can require you to stop using your telephone if such interference cannot be eliminated. If you require assistance, contact your local service facility.
This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

EN 9241565/Issue 1/FCC draft

Contents

For your safety

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 phone 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
All wireless phones may be susceptible to interference, which could affect performance.

SWITCH OFF IN HOSPITALS
Follow any restrictions. Switch the phone off near medical equipment.

SWITCH OFF IN AIRCRAFT
Follow any restrictions. Wireless devices can cause interference in aircraft.

SWITCH OFF WHEN REFUELING
Do not use the phone at a refueling point. Do not use near fuel or chemicals.

SWITCH OFF NEAR BLASTING
Follow any restrictions. Do not use the phone where blasting is in progress.

USE SENSIBLY
Use only in the normal position as explained in the product documentation. Do not 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.

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 stored in your phone.

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 phone is switched on and in service. Press the end key as many times as needed to clear the display and return to the start 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 device described in this guide is approved for use on the EGSM 900 and GSM 1800 and 1900 networks. Contact your service provider for more information about networks.

When using the features in this device, obey all laws and respect the privacy and 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 device use may cause interference or danger.

■ Network services

To use the phone 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 network services. 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. Your device may also have been specially configured. This configuration may include

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changes in menu names, menu order, and icons. Contact your service provider for more information.

This device supports WAP 2.0 protocols (HTTP and SSL) that run on TCP/IP protocols. Some features of this device, such as text messages, multimedia messages, audio messages, instant messaging service, e-mail, presence enhanced contacts, mobile Internet services, content and application download, and synchronization with a remote Internet server, require network support for these technologies.

■ Shared memory

The phone has two memories. The following features may share the first memory: contacts, text messages, multimedia messages (but no attachments), instant messaging, groups, voice tags, calendar, and to-do notes. The second shared memory is used by files stored in *Gallery*, attachments of multimedia messages, e-mail, and Java™ applications. Use of one or more of these features may reduce the memory available for the remaining features sharing memory. For example, saving many Java applications may use all of the available memory. Your device may display a message that the memory is full when you try to use a shared memory feature. In this case, delete some of the information or entries stored in the shared memory features before continuing. Some of the features, such as text messages, may have a certain amount of memory specially allotted to them in addition to the memory shared with other features.

■ Enhancements

A few practical rules about accessories and enhancements.
- 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.

General information

■ Overview of functions

Your phone provides many functions that are practical for daily use, such as a calendar, a clock, an alarm clock, a radio, and a built-in camera. Your phone also supports the following functions:

- Enhanced data rates for GSM evolution (EDGE). See "Packet data," p. 58
- Extensible hypertext markup language (XHTML). See "Web," p. 88
- Audio messaging. See "Nokia Xpress audio messaging," p. 31
- Instant messaging. See "Instant messaging (IM)," p. 35
- E-mail application. See "E-mail application," p. 33
- Voice commands. See "Voice dialing," p. 48 and "Voice commands," p. 55.
- Push to talk. See "Push to talk," p. 75
- Presence-enhanced contacts. See "My presence," p. 45
- Java 2 Platform, Micro Edition (J2ME^{TM}). See "Applications," p. 86

■ Access codes

Security code

The security code (5 to 10 digits) helps to protect your phone against unauthorized use. The preset code is 12345. To change the code, and to set the phone to request the code, see "Security," p. 64.

PIN codes

The personal identification number (PIN) code and the universal personal identification number (UPIN) code (4 to 8 digits) help to protect your SIM card against unauthorized use. See "Security," p. 64.

The PIN2 code (4 to 8 digits) may be supplied with the SIM card and is required for some functions.

The module PIN is required to access the information in the security module. See "Security module," p. 93.

The signing PIN is required for the digital signature. See "Digital signature," p. 94.

PUK codes

The personal unblocking key (PUK) code and the universal personal unblocking key (UPUK) code (8 digits) is required to change a blocked PIN code and UPIN code, respectively. The PUK2 code (8 digits) is required to change a blocked PIN2 code. If the codes are not supplied with the SIM card, contact your local service provider for the codes.

Barring password

The barring password (4 digits) is required when using the *Call barring service*. See "Security," p. 64.

■ Configuration settings service

To use some of the network services, such as mobile Internet services, MMS, Push to talk, Nokia Xpress audio messaging, or remote Internet server synchronization, your phone needs the correct configuration settings. You may be able to receive the settings directly as a configuration message. After receiving the settings you need to save them on your phone. The service provider may provide a PIN that is needed to save the settings. For more information on availability, contact your network operator, service provider, nearest authorized Nokia dealer, or visit the support area on the Nokia Web site, <www.nokia.com/support>.

When you have received a configuration message, *Configuration sett. received* is displayed.

To save the settings, select *Show* > *Save*. If the phone displays *Enter settings' PIN:*, enter the PIN code for the settings, and select *OK*. To receive the PIN code, contact the service provider that supplies the settings. If no settings are saved yet, the received settings are saved and

set as default configuration settings. Otherwise, the phone asks *Activate saved configuration settings?*.

To discard the received settings, select **Exit** or **Show** > **Discard**.

To edit the settings, see "Configuration," p. 63.

■ Download content and applications

You may be able to download new content (for example, themes) to the phone (network service). Select the download function (for example, in the *Gallery* menu). To access the download function, see the respective menu descriptions. For the availability of different services, pricing, and tariffs, contact your service provider.

Important: Use only services that you trust and that offer adequate security and protection against harmful software.

■ Nokia support on the Web

Check <www.nokia.com/support> or your local Nokia Web site for the latest version of this guide, additional information, downloads, and services related to your Nokia product.

On the Web site, you can get information on the use of Nokia product and services. If you need to contact customer service, check the list of local Nokia Care contact centers at www.nokia.com/customerservice.

For maintenance services, check your nearest Nokia Care services location at www.nokia.com/repair.

1. Get started

■ Open the slide phone

To open the slide of the phone, push the upper part of the phone up.

■ Install SIM card and battery

Always switch the device off and disconnect the charger before removing the battery.

Keep all SIM cards out of the reach of small children.

For availability and information on using SIM card services, contact your SIM card vendor. This may be the service provider, network operator, or other vendor.

This device is intended for use with BL–4B battery.

The SIM card and its contacts can easily be damaged by scratches or bending. Be careful when handling, inserting, or removing the card.

Install SIM card

1. Make sure that the cover of the connector panel is closed.

2. Slide the phone open.

3. Open the SIM card compartment (1) on the back of the slide

4. Slide the metal SIM card holder towards the compartment lid to release it (2).

5. Open the SIM card holder.
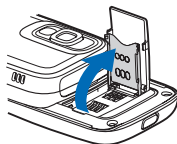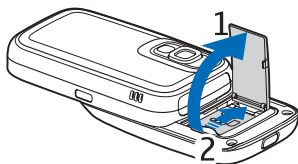
6. Insert the SIM card in the holder as shown (cut corner at the upper right).
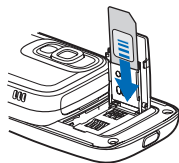
7. Close the SIM card holder, and press it down slightly.
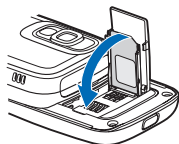
8. To lock the SIM card holder, slide it away from the compartment lid (1).

9. Close the SIM card compartment (2).
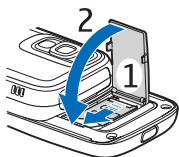
Install battery

Important: Always use original Nokia batteries. See "Nokia battery authentication guidelines," p. 98.

1. Open the cover of the connector panel (1).

2. Press the red release button above the connector panel (2), and take off the back cover of the phone (3).
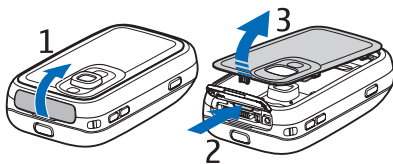
3. Observe the battery contacts, and place the battery in the battery compartment.
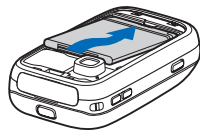
4. Place the back cover in the double catch of the phone (1) and press it down slightly (2) to close the back cover.
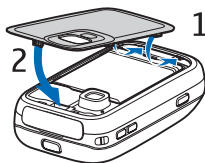
■ Charge the battery

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.

This device is intended for use when supplied with power from an AC-4 charger.

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

1. Connect the charger to a wall socket.

2. Open the cover of the connector panel (1).

3. Connect the lead from the charger to the socket on the bottom of your phone (2).

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.

The charging time depends on the charger and the battery used. For example, charging a BL-4B battery with the AC-4 charger takes approximately 1 hour and 10 minutes while the phone is in the standby mode.

■ Switch the phone on and off

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

Press the power key.

If the phone asks for a PIN or a UPIN code, enter the code (displayed as ****), and select **OK**.

Plug and play service

When you switch on your phone for the first time, and the phone is in the standby mode, you are asked to get the configuration settings from your service provider (network service). Confirm or decline the query. See "*Connect to service provider support*," p. 63, and "Configuration settings service," p. 10.

■ Antenna

Your device has an internal antenna.

Note: As with any other radio transmitting device, do not touch the antenna unnecessarily when the device is switched on. Contact with the antenna affects call quality and may cause the device to operate at a higher power level than otherwise needed. Avoiding contact with the antenna area when operating the device optimizes the antenna performance and the battery life.
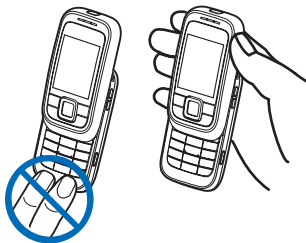
■ Wrist strap

Apply the strap to the eyelet at the upper right corner of the phone as shown in the picture.

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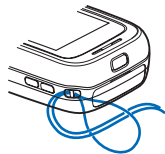
2. Your phone

■ Keys and parts

1 Left selection key

2 Call key

3 Middle selection key

4 4-way navigation key

5 Right selection key

6 End key

7 Keypad
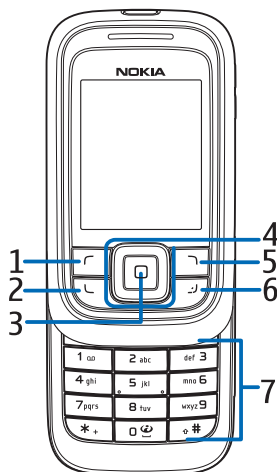
8 Volume up and PTT key and zoom in key

9 Volume down key and zoom out key

10 Camera release key

11 Camera flash

12 Camera lens

13 Mirror for self-portraits

14 Infrared (IR) port

15 Power key

16 Pop-Port™ connector

17 Back cover release button

18 Charger connector
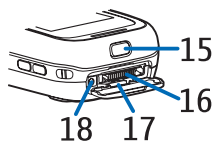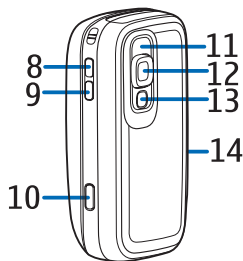
■ Standby mode

When the phone is ready for use, and you have not entered any characters, the phone is in the standby mode.

Display

1 Signal strength of the cellular network at your current location

2 Battery charge status

3 Indicators

4 Name of the network or the operator logo

5 Clock

6 Display area

7 Left selection key: Go to, or another function that you selected

8 Middle selection key is Menu

9 Right selection key: Names, or another function that you selected
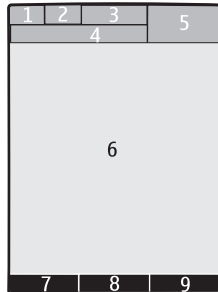
To set the left and right selection key function, see "My shortcuts," p. 54. Operator variants may have an operator-specific name to access an operator-specific Web site.

Active standby mode

In the standby mode, the main screen shows a list of selected phone features and information, that can be directly accessed: Short cut icons, audio functions, calendar and notes. Scroll up or down to activate the navigation in the list. Select Select to start a feature or View to display information. Left and right arrows at the beginning and end of a line indicate that further information is available by scrolling left or right. To end the active standby navigation mode, press Exit.

To switch off the active standby mode select Options > *Active standby* > *Off* or Menu > *Settings* > *Display* > *Standby mode settings* > *Active standby* > *Off*.

To organize and change the active standby mode, activate the navigation mode and select **Options** > *Active standby* > *My active standby* > **Options** and the following options:

Personalise — to assign or change phone features in the standby mode

Organise — to move the position of features in the standby mode

Enabling standby — select keys to enable the standby navigation mode

Personal shortcut list

To view the functions in the personal shortcut list, select **Go to**. To activate a function select it.

To view a list with available functions, select **Go to** > **Options** > *Select options*. To add a function to the shortcut list, select **Mark**. To remove a function from the list, select **Unmark**.

To rearrange the functions on your personal shortcut list, select **Go to** > **Options** > *Organise*. Select the desired function, **Move**, and the place where you want to move the function.

Shortcuts in the standby mode

- To access the list of dialed numbers, press the call key once. Scroll to the number or name that you want; to call the number, press the call key.
- To open the web browser, press and hold **0**.
- To call your voice mailbox, press and hold **1**.
- Use the navigation key as a shortcut. See "My shortcuts," p. 54.

Power saving

The power saving mode is activated, when no function of the phone has been used for a certain period of time. Only a small area of the display stays visible and moves down the display. To activate the power saver, see *Power saver* in "Display," p. 53. To deactivate the screen saver, open the slide, or press any key.

Indicators

You received one or several text or picture messages. See "Read and reply to a SMS message," p. 28.

You received one or several multimedia messages. See "Read a MMS and reply," p. 30.

The phone registered a missed call. See "Log," p. 50.

The keypad is locked. See "Keypad lock (keyguard)," p. 20.

The phone does not ring for an incoming call or text message when *Incoming call alert* and *Message alert tone* are set to *Off*. See "Tones," p. 52.

The alarm clock is set to *On*. See "Alarm clock," p. 82.

When the packet data connection mode *Always online* is selected and the packet data service is available, the indicator is shown. See "Packet data," p. 58.

A packet data connection is established. See "Packet data," p. 58 and "Browse pages," p. 89.

The packet data connection is suspended (on hold), for example, if there is an incoming or outgoing call during a packet data dial-up connection.

When the infrared connection is activated, the indicator is shown continuously.

Bluetooth connection indicator. See "Bluetooth wireless technology,", p. 55.

Push to talk connection is active or suspended. See "Push to talk," p. 75.

■ Keypad lock (keyguard)

To prevent the keys from being accidentally pressed, select **Menu**, and press ***** within 3.5 seconds to lock the keypad. In the standby mode close the slide of the phone, and select **Lock** to lock the keys.

To unlock the keypad, slide the phone open or select **Unlock**, and press ***** or **OK**, if slide is closed. If the *Security keyguard* is set *On*, enter the security code if requested.

To answer a call when the keyguard is on, press the call key or slide the phone open. When you end or reject the call, the keypad automatically locks.

For *Automatic keyguard* and *Security keyguard*, see "Phone," p. 61.

When the keyguard is on, calls still may be possible to the official emergency number programmed into your device.

3. Call functions

■ Make a call

1. Enter the phone number, including the area code.

   For international calls, press ***** twice for the international prefix (the + character replaces the international access code); then enter the country code, the area code without the leading 0, if necessary, and the phone number.

2. To call the number, press the call key.

3. To end the call or to cancel the call attempt, press the end key.

To accept or end a call by opening or closing the slide, see *Slide call handling* in "Call," p. 61.

To make a call using names, search for a name or phone number in *Contacts*. See "Search for a contact," p. 43. Press the call key to call the number.

To access the list of up to 20 numbers you last called or attempted to call, press the call key once in the standby mode. To call the number, select a number or name, and press the call key.

Speed dialing

Assign a phone number to one of the speed-dialing keys, **2** to **9**. See "Speed dials," p. 49. Call the number in either of the following ways:

- Press the speed-dialing key, then press the call key.
- If *Speed dialling* is set to *On*, press and hold a speed-dialing key until the call begins. See *Speed dialling* in "Call," p. 61.

■ Answer or reject a call

To answer an incoming call, press the call key. To end the call, press the end key, or close the slide. See *Slide call handling* in "Call," p. 61.

To reject an incoming call, press the end key, or if the phone is open, close the phone.

To mute the ringing tone select **Silence**.

Tip: If *Divert if busy* is activated to divert the calls (for example, to your voice mailbox), rejecting an incoming call also diverts the call. See "Call," p. 61.

If a compatible headset supplied with a headset key is connected to the phone, to answer and end a call, press the headset key.

Call waiting

To answer the waiting call (network service) during an active call, press the call key. The first call is put on hold. To end the active call, press the end key.

To activate *Call waiting*, see "Call," p. 61.

■ Options during a call

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

Many of the options that you can use during a call are network services. For availability, contact your service provider.

During a call, select **Options** and from the following options:

Call options are *Mute* or *Unmute*, *Contacts*, *Menu*, *Lock keypad*, *Record*, *Loudspeaker* or *Handset*.

Network services options are *Answer* or *Reject*, *Hold* or *Unhold*, *New call*, *Add to conference*, *End call*, *End all calls* and the following:

Send DTMF — to send tone strings

Swap — to switch between the active call and the call on hold

Transfer — to connect a call on hold to an active call and disconnect yourself

Conference — to make a conference call that allows up to six persons to take part in a conference call

Private call —to discuss privately in a conference call

4. Write text

You can enter text (for example, when writing messages) using traditional or predictive text input. When using traditional text input, press a number key, **1** to **9**, repeatedly until the desired character appears. In predictive text input you can enter a letter with a single key press.

When you write text, ⬍ appears at the top of the display, indicating predictive text input, and ⬎ appears, indicating traditional text input. Abc , abc , or ABC appears next to the text input indicator, indicating the character case. To change the character case, press **#**. 123 indicates number mode. To change from the letter to number mode, press and hold **#**, and select *Number mode*.

> **Tip:** To quickly set predictive text input on or off when writing text, press **#** twice, or press and hold **Options**.

■ Settings

To set the writing language while writing text, select **Options** > *Writing language*.

When writing text, select **Options** > *Prediction sett.*.

- To set predictive text input on, select *Prediction* > *On*.

  To revert to traditional text input, select *Prediction* > *Off*.

- To select the prediction type, select *Prediction type* > *Normal* or *Word suggestions*. If you select *Normal*, the phone tries to predict the word on the basis of the characters you have entered. If you select *Word suggestions*, the phone tries to predict and complete the word even before you have entered all the characters.

■ Predictive text input

Predictive text input allows you to write text quickly using the phone keypad and a built-in dictionary.

1. Start writing a word using the keys **2** to **9**. Press each key only once for one letter. The phone displays * or the letter if it has a meaning as a word separately. The entered letters are displayed underlined.

   If you select *Word suggestions* as prediction type, the phone starts to predict the word you are writing. After you enter a few letters, and if these entered letters are not a word, the phone tries to predict longer words. Only the entered letters are displayed underlined.

2. When you finish writing the word and it is correct, to confirm it by adding a space, press **0**.

   If the word is not correct, press ***** repeatedly, or select **Options** > *Matches*. When the word that you want appears, select **Select**.

   If the ? character is displayed after the word, the word you intended to write is not in the dictionary. To add the word to the dictionary, select **Spell**. The phone displays the entered letters. Complete the word using traditional text input, and select **Save**.

For more instructions for writing text, see "Tips," on page 25.

■ Traditional text input

Press a number key, **1** to **9**, repeatedly until the desired character appears. Not all characters available under a number key are printed on the key. The characters available depend on the selected writing language. See "Settings," on page 23.

If the next letter you want is located on the same key as the present one, wait until the cursor appears, or briefly press any of the navigation keys and enter the letter.

The most common punctuation marks and special characters are available under the number key **1**.

For more instructions for writing text, see "Tips," on page 25.

■ Tips

The following functions may also be available for writing text:

- To insert a space, press **0**.
- To move the cursor to the left, right, down, or up, scroll in the corresponding direction.
- To insert a number while in letter mode, press and hold the desired number key.
- To delete a character to the left of the cursor, select **Clear**. To delete the characters more quickly, select and hold **Clear**.

  To delete all the characters at once when writing a message, select **Options** > *Clear field*.
- To insert a word when using predictive text input, select **Options** > *Insert word*. Write the word using traditional text input, and select **Save**. The word is also added to the dictionary.
- To insert a special character when using traditional text input, press *****; when using predictive text input, press and hold *****, or select **Options** > *Insert symbol*. Scroll to a character, and select **Use**.
- To insert a smiley when using traditional text input, press ***** twice; when using predictive text input, press and hold *****, and press ***** again, or select **Options** > *Insert smiley*. Scroll to a smiley, and select **Use**.

The following options are available when writing text messages:

- To insert a number while in letter mode, select **Options** > *Insert number*. Enter the phone number or search for it in *Contacts*, and select **OK**.
- To insert a name from *Contacts*, select **Options** > *Insert contact*. To insert a phone number attached to the name, select **Options** > *Insert number*.

5. Navigate the menus

The phone offers you an extensive range of functions, which are grouped into menus.

1. To access the menu, select **Menu**. To change the menu view, select **Options** > *Main menu view* > *List* or *Grid*.

2. Scroll through the menu, and select a submenu (for example, *Settings*).

3. If the menu contains submenus, select the one that you want (for example, *Call*).

4. If the selected menu contains further submenus, select the one that you want (for example, *Anykey answer*).

5. Select the setting of your choice.

6. To return to the previous menu level, select **Back**. To exit the menu, select **Exit**.

To rearrange the menu, scroll to the menu you want to move, and select **Options** > *Organise* > **Move**. Scroll to where you want to move the menu, and select **OK**. To save the change, select **Done** > **Yes**.

6. Messaging

The message services can only be used if they are supported by your network or your service provider.

Note: When the phone is sending the message, the animated is shown. This is an indication that the message has been sent by your device 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.

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

Only devices that have compatible features can receive and display messages. The appearance of a message may vary depending on the receiving device.

■ Text messages (SMS)

Using the short message service (SMS) you can send and receive multipart messages made of several ordinary text messages (network service).

Before you can send any text or e-mail message, you must save your message center number. See "Message settings," p. 40.

To check SMS e-mail service availability and to subscribe to the service, contact your service provider.

Your device supports the sending of text messages beyond the character limit for a single message. Longer messages are sent as a series of two or more messages. Your service provider may charge accordingly. Characters that use accents or other marks, and characters from some language options like Chinese, take up more space limiting the number of characters that can be sent in a single message.

At the top of the display, you can see the message length indicator counting backwards from the maximum number of characters supported by the phone.

Write and send a SMS message

Use the navigation key to jump from one input field or button to the next.

1. Select **Menu** > *Messaging* > *Create message* > *Text message*.

2. Enter the recipients phone number in the input field *To:*; or select **Add** to select the phone number from various lists.

3. Enter a message in the *Message:* input field. See "Write text," p. 23. To insert text templates, a contact, or other items into the message, select Options. Sending a multipart message may cost more than sending one text message, see "Templates," p. 29.

4. To send the message select **Send**.

Read and reply to a SMS message

✉ is shown when you receive an SMS message or an SMS e-mail. The blinking ✉ indicates that the message memory is full. Before you can receive new messages, delete some of your old messages in the *Inbox* folder.

To view a new message, select **Show**. To view it later, select **Exit**.

To read the message later, select **Menu** > *Messaging* > *Inbox*. If more than one message is received, select the message that you want to read. ✉ indicates an unread message.

While reading a message, select **Options** to delete or forward the message; edit the message as a text message or an SMS e-mail, or move it to another folder; or view or extract message details. You can also copy text from the beginning of the message to your phone calendar as a reminder note.

To reply to a message, select **Reply** > *Text message*, *Multimedia*, or *Audio message*. Enter the reply message. When replying to an e-mail, first confirm or edit the e-mail address and subject.

To send the message to the displayed number, select **Send** or press the call key.

Templates

Your phone has text templates ▤ that you can use in text or SMS e-mail messages.

To access the template list, select **Menu** > *Messaging* > *Saved items* > *Templates*.

■ Multimedia messages (MMS)

A multimedia message can contain text, sound, a picture, a calendar note, a business card, or a video clip. If the message is too large, the phone may not be able to receive it. Some networks allow text messages that include an Internet address where you can view the multimedia message.

To set the settings for multimedia messaging, see "Multimedia," p. 41. To check availability and to subscribe to the multimedia messaging service, contact your service provider.

You cannot receive multimedia messages during a call, a game, another Java application, or an active browsing session over GSM data. Because delivery of multimedia messages can fail for various reasons, do not rely solely upon them for essential communications.

Write and send a MMS

1. Select **Menu** > *Messaging* > *Create message* > *Multimedia*.

2. To compose your message, select an input window and **Insert** and from the options.

   Text — to write a text

   Image, *Sound clip* or *Video clip* — to insert a file from *Gallery*, or to take a new image or to record a new video or sound clip to be added to the message

   Business card — to insert a contact from *Names*

   Calendar note — to insert a note from *Calendar*

   Slide — to insert a slide to the message. Your phone supports multimedia messages that contain several pages (slides). Each slide

can contain text, one image, a calendar note, a business card, and one sound clip. To open a desired slide if the message contains several slides, select **Options** > *Previous slide* or *Next slide*. To set the interval between the slides, select **Options** > *Slide timing*. To move a slide component within the message, select **Options** > *Move slide*.

3. To send the message, select **Send**. Enter the recipients phone number in the input field *To:*, or select **Add** to select the phone number from various lists. Optionally enter a text in the input field *Subject:*. Select the field *Presentation:* and **Edit** to add or remove multimedia objects. Select **Send** to move the message to the *Outbox* folder for sending.

While the multimedia message is being sent, the animated indicator is displayed and you can use other functions on the phone. If the sending fails, the phone tries to resend it a few times. If this fails, the message remains in the *Outbox* folder, and you can try to resend it later.

If you select *Save sent messages* > *Yes*, the sent message is saved in the *Sent items* folder. See "Multimedia," p. 41. When the message is sent, it is not an indication that the message has been received at the intended destination.

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

Read a MMS and reply

Important: Exercise caution when opening messages. Multimedia message objects may contain malicious software or otherwise be harmful to your device or PC.

When a multimedia message has been received, the text *Multimedia message received* is shown.

1. To read the message, select **Show**.

To view it later, select **Exit**. To read the message later, select **Menu** > *Messaging* > *Inbox*. In the list of messages, indicates an unread message. Select the message that you want to view.

2. The function of the middle selection key changes according to the currently displayed attachment in the message:

To view the whole message if the received message contains a presentation, a sound clip, or view a video clip, select **Play**.

To view a business card or calendar note or to open a theme object, select **Open**.

3. To reply to the message, select **Options** > *Reply* > *Text message*, *Audio message*, or *Multimedia*. Enter the reply message, and select **Send**. You can send the reply message only to the person who sent you the original message.

Select **Options** to access available options.

■ Nokia Xpress audio messaging

With this menu, use the multimedia message service to create and send a voice message in a convenient way. Multimedia messaging service must be activated before this service can be used.

Create and send an audio message

1. Select **Menu** > *Messaging* > *Create message* > *Audio message*. The recorder opens. To use the recorder, see "Recorder," p. 73.

2. When you have stopped the recording, enter the recipients phone number in the input field *To:*, or select **Add** to select the phone number from various lists.

3. Scroll down to the message field, and select **Play** to check the message before sending.
   Select **Options** > *Replace sound clip* to repeat the recording, *Save message*, *Save sound clip* to save the recording in *Gallery*, or *Add subject* to insert a subject to the message.

4. To send the message, select **Send**.

Receive an audio message

When your phone is receiving an audio message, *1 audio message received* is shown. Select **Play** to open the message or select **Show** > **Play** if there are more than one message received. Select **Options** to see the options available. To listen to the message later, select **Exit**.

To save the message, select **Options** > **Save** and the folder in which you want to save the message.

■ Memory full

When you are receiving a message, and the memory for the messages is full, *Memory full. Unable to receive msgs.* is shown. To first delete old messages, select **OK** > **Yes** and the folder. Scroll to the desired message, and select **Delete**. If one or more messages are marked, select **Mark**. Mark all the messages you want to delete, and select **Options** > *Delete marked*.

■ Folders

The phone saves received text and multimedia messages in the *Inbox* folder.

Multimedia messages that have not yet been sent are moved to the *Outbox* folder.

If you select *Message settings* > *General settings* > *Save sent message* > *Yes*, the sent messages are saved in the *Sent items* folder.

To save the message that you create and wish to send later in the *Saved items* folder, select **Options** > *Save message* > *Saved messages*. ✉ indicates unsent messages.

To organize your text messages, you can add new folders for your messages. Select *Messaging* > *Saved items*.

To add a folder, select **Options** > *Add folder*. To delete or rename a folder, scroll to the desired folder, and select **Options** > *Delete folder* or *Rename folder*.

To move a file to an other folder, highlight the file, and select **Options** > *Move*.

Delivery reports contains delivery information on messages you have sent.

■ E-mail application

The e-mail application (network service) allows you to access your compatible e-mail account from your phone when you are not in the office or at home. This e-mail application is different from the SMS and MMS e-mail function.

Your phone supports POP3 and IMAP4 e-mail servers. Before you can send and retrieve any e-mail, you may need to do the following:

- Obtain a new e-mail account or use the current one. For availability of your e-mail account contact your e-mail service provider.

- For the settings required for e-mail, contact your e-mail service provider. You may receive the e-mail configuration settings as a configuration message. See "Configuration settings service," p. 10. You can also enter the settings manually. See "Configuration," p. 63.

  To activate the e-mail settings, select **Menu** > *Messaging* > *Message settings* > *E-mail messages*. See "E-mail," p. 42.

This application does not support keypad tones.

Write and send an e-mail

1. Select **Menu** > *Messaging* > *E-mail* > *Create e-mail*.

2. Enter the recipient's e-mail address, a subject, and the e-mail message.

   To attach a file to the e-mail, select **Options** > *Attach* and the file in *Gallery*.

3. Select **Send** > *Send now*.

Download e-mail

1. To access the e-mail application, select **Menu** > *Messaging* > *E-mail*.

2. To download e-mail messages that have been sent to your e-mail account, select *Retrieve*.

   To download new e-mail messages and to send e-mail that has been saved in the *Outbox* folder, select **Options** > *Retrieve and send*.

To download first the headings of the new e-mail messages that have been sent to your e-mail account, select **Options** > *Check new e-mail*. Then, to download the selected e-mail, mark the desired ones, and select **Options** > *Retrieve*.

3. Select the new message in *Inbox*. To view it later, select **Back**. ✉ indicates an unread message.

Read and reply to e-mail

Important: Exercise caution when opening messages. E-mail messages may contain malicious software or otherwise be harmful to your device or PC.

Select **Menu** > *Messaging* > *E-mail* > *Inbox* and the desired message. While reading the message, select **Options** to view the available options.

To reply to an e-mail, select **Reply** > *Empty screen* or *Original text*. To reply to many, select **Options** > *Reply to all*. Confirm or edit the e-mail address and subject; then write your reply. To send the message, select **Send** > *Send now*.

Inbox and other folders

Your phone saves e-mail that you have downloaded from your e-mail account in *Inbox* folder. *Other folders* contains the following folders: *Drafts* for saving unfinished e-mail, *Archive* for organizing and saving your e-mail, *Outbox* for saving e-mail that has not been sent, and *Sent items* for saving e-mail that has been sent.

To manage the folders and their e-mail content, select **Options** > *Manage folder*.

Delete e-mail messages

Select **Menu** > *Messaging* > *E-mail* > **Options** > *Manage folder* and the desired folder. Mark the messages that you want to delete. To delete them, select **Options** > *Delete*.

Deleting an e-mail from your phone does not delete it from the e-mail server. To set the phone to delete the e-mail also from the e-mail server,

select **Menu** > *Messaging* > *E-mail* > **Options** > *Extra settings* > *Leave copy:* > *Delete retr. msgs*.

■ Instant messaging (IM)

Instant messaging (network service) is a way to send short, simple text messages to online users.

Before you can use instant messaging, you must subscribe to the service. To check the availability and costs, and to subscribe to the service, contact your network operator, from whom you also receive your unique ID, password, and settings.

To set the required settings for the instant messaging service, see *Connect. settings* in "Access the IM menu," p. 35. The icons and texts on the display may vary, depending on the instant messaging service.

Depending on the network, the active instant messaging conversation may consume the phone battery faster, and you may need to connect the phone to a charger.

Access the IM menu

To access the menu while still offline, select **Menu** > *Messaging* > *Instant messages*. If more than one set of connection settings for the instant messaging service is available, select the desired one. If there is only one set defined, it is selected automatically.

The following options are shown:

Login — to connect to the instant messaging service

Saved convers. — to view, erase or rename the instant messaging conversations that you have saved during the instant messaging session

Connect. settings — to edit the settings needed for messaging and presence connection

Connect to the IM service

To connect to the instant messaging service, enter the *Instant messages* menu, activate an instant messaging service, and select *Login*. When the phone has successfully connected, *Logged in* is displayed.

To disconnect from the instant messaging service, select *Logout*.

Start an IM session

Open the *Instant messages* menu, and connect to the service. Start the service in different ways.

Select *Conversations* to view the list of new and read instant messages or invitations for instant messaging during the active instant messaging session. Scroll to the message or invitation that you want, and select **Open** to read the message.

⧉ indicates the new and ⧉ read group messages. ⧉ indicates the new and ⧉ the read instant messages. ⧉ indicates the invitations.

The icons and texts on the display may vary, depending on the instant messaging service.

Select *IM contacts* to view the contacts that you have added. Scroll to the contact with whom you would like to chat, and select **Chat** or **Open** if a new contact is shown in the list. To add contacts see "Contacts for IM," p. 38. ⧉ indicates the online and ⧉ the offline contacts in the phone contacts memory. ⧉ indicates a blocked contact. ⧉ indicates a contact that has been sent a new message.

Select *Groups* > *Public groups* to display the list of bookmarks to public groups provided by the network operator. To start a instant messaging session with a group, scroll to a group, and select **Join**. Enter your screen name that you want to use in the conversation. When you have successfully joined the group conversation, you can start a group conversation. To create a private group, see "Groups," p. 38.

Select *Search* > *Users* or *Groups* to search for other instant messaging users or public groups on the network by phone number, screen name, e-mail address, or name. If you select *Groups*, you can search for a group by a member in the group or by group name, topic, or ID.

To start the conversation when you have found the user or the group that you want, select **Options** > *Chat* or *Join group*.

Start a conversation from *Contacts*, see "View the subscribed names," p. 46.

Accept or reject an invitation

In the standby mode, when you are connected to the instant messaging service and you receive a new invitation, *New invitation received* is displayed. To read it, select **Read**. If more than one invitation is received, scroll to the invitation you want, and select **Open**. To join the private group conversation, select **Accept**, and enter the screen name; or to reject or delete the invitation, select **Options** > *Reject* or *Delete*.

Read a received instant message

In the standby mode, when you are connected to the instant messaging service, and you receive a new message that is not a message associated with an active conversation, *New instant message* is displayed. To read it, select **Read**. If you receive more than one, scroll to the message, and select **Open**.

New messages received during an active conversation are held in *Instant messages* > *Conversations*. If you receive a message from someone who is not in *IM contacts*, the sender ID is displayed. To save a new contact that is not in the phone memory, select **Options** > *Save contact*.

Participate in a conversation

To join or start an instant messaging session, select **Write**. Write your message, and select **Send** or press the call key to send it. Select **Options** to access available options.

Edit your availability status

1. Open the *Instant messages* menu, and connect to the instant messaging service.

2. To view and edit your own availability information or screen name, select *My settings*.

3. To allow all the other instant messaging users to see you when you are online, select *Availability* > *Available for all*.

To allow only the contacts on your instant messaging contact list to see you when you are online, select *Availability* > *Avail. for contacts*.

To appear as being offline, select *Availability* > *Appear offline*.

When you are connected to the instant messaging service, ☻ indicates that you are online, and ☻ indicates that you are not visible to others.

Contacts for IM

To add contacts to the instant messaging contacts list, connect to the instant messaging service, and select *IM contacts*. To add a contact to the list, select **Options** > *Add contact* or **Add** (if you have no contacts added) > *Enter ID manually*, *Search from serv.*, *Copy from server*, or *By mobile number*.

Scroll to a contact. To start a conversation, select **Chat** or **Options** and from the available options.

Block and unblock messages

To block messages, connect to the instant messaging service, and select *Conversations* > *IM contacts*; or join or start a conversation. Scroll to the contact from whom you want to block incoming messages, and select **Options** > *Block contact* > *OK*.

To unblock the messages, connect to the instant messaging service, and select *Blocked list*. Scroll to the contact from whom you want to unblock the messages, and select *Unblock*.

Groups

You can create your own private groups for an instant messaging conversation, or use the public groups provided by the service provider. The private groups exist only during an instant messaging conversation. The groups are saved on the server of the service provider. If the server you are logged on to does not support group services, all group-related menus are dimmed.

Public groups

Groups — You can bookmark public groups that your service provider may maintain. Connect to the instant messaging service, and select *Public groups*. Scroll to a group with which you want to chat, and select **Join**. If you are not in the group, enter your screen name as your nickname for the group. To delete a group from your group list, select **Options** > *Delete group*.

To search for a group, select *Groups* > *Public groups* > *Search groups*. You can search for a group by a member in the group, by group name, topic, or ID.

Create a private group

Connect to the instant messaging service, and select *Groups* > *Create group*. Enter the name for the group and the screen name that you want to use. Mark the private group members in the contacts list, and write an invitation.

■ Voice messages

The voice mailbox is a network service and you may need to subscribe to it. For details, contact your service provider.

To call your voice mailbox, select **Menu** > *Messaging* > *Voice messages* > *Listen to voice messages*. To enter, search for, or edit your voice mailbox number, select *Voice mailbox number*.

If supported by the network, 🔲 indicates that there are new voice messages. Select **Listen** to call your voice mailbox number.

■ Info messages

Select **Menu** > *Messaging* > *Info messages*. With the *Info messages* network service, you can receive messages on various topics from your service provider. To check availability, topics, and the relevant topic numbers, contact your service provider.

■ Service commands

Select **Menu** > *Messaging* > *Service commands*. Write and send service requests (also known as USSD commands) to your service provider, such as activation commands for network services.

■ Delete messages

To delete messages, select **Menu** > *Messaging* > *Delete messages* > *By message* to delete single messages, *By folder* to delete all messages from a folder, or *All messages*. If a folder contains unread messages, the phone asks whether you want to delete them also.

■ Message settings

General settings

Select **Menu** > *Messaging* > *Message settings* > *General settings* and from the following options:

Save sent messages > *Yes* — set the phone to save the sent messages in the *Sent items* folder

Overwriting in Sent items > *Allowed*— to allow overwriting when messages are sent and the message memory is full

Font size — to change the font size for reading and writing messages

Graphical smileys > *Yes* — to replace character-based smileys with graphical ones

Text messages and SMS e-mail

The message settings affect the sending, receiving, and viewing of messages.

Select **Menu** > *Messaging* > *Message settings* > *Text messages* and from the following options:

Delivery reports — to ask the network to send delivery reports about your messages (network service)

Message centres and *E-mail message centres* — to edit the name and number of the message and e-mail delivery centres. The number can be obtained from the network operator.

Message centre in use or *E-mail centre in use*— to select the message centre to be used

Message validity — to select the length of time for which the network attempts to deliver your message

Messages sent via — to select the format of the messages to be sent: *Text*, *Paging*, or *Fax* (network service)

Use packet data > *Yes* — to set GPRS as the preferred SMS bearer

Character support > *Full* — to select all characters in the messages to be sent as viewed. If you select *Reduced*, characters with accents and other marks may be converted to other characters. When writing a message, you can check how the message will look to the recipient by previewing the message. See "Write and send a SMS message," p. 28.

Reply via same centre > *Yes* — to allow the recipient of your message to send you a reply using your message center (network service)

Multimedia

The message settingsaffect the sending, receiving, and viewing of multimedia messages.

Select **Menu** > *Messaging* > *Message settings* > *Multimedia msgs.* and from the following options:

Delivery reports — to ask the network to send delivery reports about your messages (network service)

Default slide timing — to define the default time between slides in multimedia messages

Allow multimedia reception > *Yes* or *No* — to receive or to block the multimedia message. If you select *In home network*, you cannot receive multimedia messages when outside your home network.

Incoming multimedia messages > *Retrieve*, *Retrieve manually*, or *Reject* — to allow the reception of multimedia messages automatically, manually after being prompted, or to reject the reception

Allow adverts — to receive or reject advertisements. This setting is not shown if *Allow multimedia reception* is set to *No*.

Configuration settings > *Configuration* — Only the configurations that support multimedia messaging are shown. Select a service provider, *Default*, or *Personal config.* for multimedia messaging. Select *Account* and select a multimedia messaging service account contained in the active configuration settings.

E–mail

The settings affect the sending, receiving, and viewing of e-mail.

You may receive the configuration settings for the e-mail application as a configuration message. See "Configuration settings service," p. 10. You can also enter the settings manually. See "Configuration," p. 63.

Select **Menu** > *Messaging* > *Message settings* > *E-mail messages* and from the following options:

Configuration — Select the set that you would like to activate.

Account — Select an account provided by the service provider.

My name — Enter your name or nickname.

E-mail address — Enter the e-mail address.

Include signature — Define a signature that is automatically added to the end of your e-mail when you write your message.

Reply-to address — Enter the e-mail address to which you want the replies to be sent.

SMTP user name — Enter the name that you want to use for outgoing mail.

SMTP password — Enter the password that you want to use for outgoing mail.

Display terminal window > *Yes* — To perform manual user authentication for intranet connections.

Incoming server type > *POP3* or *IMAP4* — Identify the type of e-mail system that you want to use. If both types are supported, select *IMAP4*.

Incoming mail settings — Select available options for POP3 or IMAP4.

7. Contacts

You can save names and phone numbers (*Contacts*) in the phone memory and in the SIM card memory.

The phone memory may save contacts with numbers and text items. You can also save an image for a certain number of names.

Names and numbers saved in the SIM card memory, are indicated by ▣ .

■ Search for a contact

Select **Menu** > *Contacts* > *Names*. Scroll through the list of contacts, or enter the first letter of the name for which you are searching.

■ Save names and phone numbers

Names and numbers are saved in the used memory. Select **Menu** > *Contacts* > *Names* > **Options** > *Add new contact*. Enter the name and the phone number.

■ Save details

In the phone memory for contacts, you can save different types of phone numbers and short text items per name.

The first number you save is automatically set as the default number. It is indicated with a frame around the number type indicator (for example, ▣). When you select a name (for example, to make a call), the default number is used unless you select another number.

1. Make sure that the memory in use is either *Phone* or *Phone and SIM*. See "Settings," p. 47.

2. Scroll to the name to which you want to add a new number or text item, and select **Details** > **Options** > *Add detail*.

3. To add a number, select *Number* and one of the number types.

   To add another detail, select a text type or an image from *Gallery*.

To search for an ID from the server of your service provider if you have connected to the presence service, select *User ID* > *Search*. See "My presence," p. 45. If only one ID is found, it is automatically saved. Otherwise, to save the ID, select **Options** > *Save*. To enter the ID, select *Enter ID manually*.

To change the number type, scroll to the desired number, and select **Options** > *Change type*. To set the selected number as the default number, select *Set as default*.

4. Enter the number or text item; to save it, select **Save**.

5. To return to the standby mode, select **Back** > **Exit**.

■ Copy contacts

Search for the contact you want to copy, and select **Options** > *Copy*. You can copy names and phone numbers from the phone contact memory to the SIM card memory, or vice versa. The SIM card memory can save names with one phone number attached to them.

■ Edit contact details

1. Search for the contact you want to edit, select **Details**, and scroll to the desired name, number, text item, or image.

2. To edit a name, number, or text item, or to change an image, select **Options** > *Edit*.

You cannot edit an ID when it is on the *IM contacts* or *Subscribed names* list.

■ Delete contacts or contact details

To delete all the contacts and the details attached to them from the phone or SIM card memory, select **Menu** > *Contacts* > *Delete all contacts* > *From phone mem.* or *From SIM card*. Confirm with the security code.

To delete a contact, search for the desired contact, and select **Options** > *Delete contact*.

To delete a number, text item, or an image attached to the contact, search for the contact, and select **Details**. Scroll to the desired detail, and select **Options** > *Delete* > *Delete number*, *Delete detail*, or *Delete image*. Deleting an image from contacts does not delete it from *Gallery*.

■ Business cards

You can send and receive a person's contact information from a compatible device that supports the vCard standard as a business card.

To send a business card, search for the contact whose information you want to send, and select **Details** > **Options** > *Send bus. card* > *Via multimedia*, *Via text message*, *Via infrared*, or *Via Bluetooth*.

When you have received a business card, select **Show** > **Save** to save the business card in the phone memory. To discard the business card, select **Exit** > **Yes**.

■ My presence

With the presence service (network service) you can share your presence status with other users with compatible devices and access to the service. Presence status includes your availability, status message, and personal logo. Other users who have access to the service and who request your information are able to see your status. The requested information is shown in *Subscribed names* in the viewers' *Contacts* menu. You can personalize the information that you want to share with others and control who can see your status.

Before you can use presence, you must subscribe to the service. To check the availability, and costs, and to subscribe to the service, contact your network operator, from whom you also receive your unique ID, password, and the settings for the service. See "Configuration," p. 63.

While you are connected to the presence service, you can use the other functions of the phone; the presence service is active in the background. If you disconnect from the service, your presence status is shown for a certain amount of time to viewers, depending on the service provider.

Select **Menu** > *Contacts* > *My presence* and select from the following options:

Connect to 'My presence' service or *Disconnect from service* — to connect to or disconnect from the service

View my presence — to view the status in *Private pres.* and *Public presence*

Edit my presence > *My availability*, *My presence message*, *My presence logo*, or *Show to* — to change your presence status

My viewers > *Current viewers*, *Private list*, or *Blocked list*

Settings > *Show current presence in idle*, *Synchronise with profiles*, *Connection type*, or *Presence settings*

■ Subscribed names

You can create a list of contacts whose presence status information you want to be aware of. You can view the information if it is allowed by the contacts and the network. To view these subscribed names, scroll through the contacts or use the *Subscribed names* menu.

Make sure that the memory in use is either *Phone* or *Phone and SIM*. See "Settings," p. 47.

To connect to the Presence service, select **Menu** > *Contacts* > *My presence* > *Connect to 'My presence' service*.

Add contacts to the subscribed names

1. Select **Menu** > *Contacts* > *Subscribed names*.

2. If you have no contacts on your list, select **Add**. Otherwise, select **Options** > *Subscribe new*. The list of your contacts is shown.

3. Select a contact from the list and if the contact has an user ID saved, the contact is added to the subscribed names list.

View the subscribed names

To view the presence information, see "Search for a contact," p. 43.

1. Select **Menu** > *Contacts* > *Subscribed names*.

The status information of the first contact on the subscribed names list is displayed. The information that the person wants to give to the others may include text and some of the following icons:

, , or indicates that the person is available, discreet, or not available.

 indicates that the person's presence information is not available.

2. Select **Details** to view the details of the selected contact; or select **Options** > *Subscribe new*, *Chat*, *Send message*, *Send bus. card*, or *Unsubscribe*.

Unsubscribe a contact

To unsubscribe a contact from the *Contacts* list, select the contact and **Details** > the user ID > **Options** > *Unsubscribe* > **OK**.

To unsubscribe, use the **Subscribed names** menu. See "View the subscribed names," p. 46.

■ Settings

Select **Menu** > *Contacts* > *Settings* and from the following options:

Memory in use — to select SIM card or phone memory for your contacts

Contacts view — to select how the names and numbers in contacts are displayed

Name display — to view the *Last name first* or the *First name first* in the contacts list

Memory status — to view the free and used memory capacity

■ Groups

Select **Menu** > *Contacts* > *Groups* to arrange the names and phone numbers saved in the memory into caller groups with different ringing tones and group images.

■ Voice dialing

You can make a phone call by saying a voice tag that has been added to a phone number. Any spoken words, such as a name, can be a voice tag. The number of voice tags you can create is limited.

Before using voice tags, note that:

- Voice tags are not language-dependent. They are dependent 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.

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

Add and manage voice tags

Save or copy to the phone memory the contacts for which you want to add a voice tag. You can also add voice tags to the names in the SIM card, but if you replace your SIM card with a new one, you first must delete the old voice tags before you can add new ones.

1. Search for the contact to which you want to add a voice tag.

2. Select *Details*, scroll to the desired phone number, and select *Options* > *Add voice tag*.

3. Select *Start*, and say clearly the words you want to record as a voice tag. After recording, the phone plays the recorded tag.

   appears after the phone number with a voice tag in *Contacts*.

To check the voice tags, select *Menu* > *Contacts* > *Voice tags*. Scroll to the contact with the voice tag that you want, and select an option to listen to, delete, or change the recorded voice tag.

Make a call by using a voice tag

If the phone has an application running that is sending or receiving data using a packet data connection, you must end the application before voice dialing.

1. In the standby mode, press and hold the volume down key or the right selection key. A short tone is heard, and *Speak now* is displayed.

2. Say the voice tag clearly. The phone plays the recognized voice tag, and dials the phone number of the voice tag after 1.5 seconds.

If you are using a compatible headset with the headset key, press and hold the headset key to start the voice dialing.

■ Speed dials

To assign a number to a speed-dialing key, select **Menu** > *Contacts* > *Speed dials*, and scroll to the speed-dialing number that you want.

Select *Assign*, or if a number has already been assigned to the key, select **Options** > *Change*. Select **Search**, the name, then the number you want to assign. If the *Speed dialling* function is off, the phone asks whether you want to activate it. See also *Speed dialling* in "Call," p. 61.

To make a call using the speed-dialing keys, see "Speed dialing," p. 21.

■ Info, service, and my numbers

Select **Menu** > *Contacts* and from one of these submenus:

Info numbers — to call the information numbers of your service provider if the numbers are included on your SIM card (network service)

Service numbers — to call the service numbers of your service provider if the numbers are included on your SIM card (network service)

My numbers — to view the phone numbers assigned to your SIM card, if the numbers are included on your SIM card

8. Log

The phone registers the phone numbers of identified missed, received, and dialed calls; the message recipients; and the approximate length of your calls.

The phone registers if it is switched on and within the network's service area, and the network supports these functions.

■ Recent calls lists

Select **Menu** > *Log* > *Call log*, *Missed calls*, *Received calls*, *Dialled numbers*, or *Message Recipients* to view the call lists. Select **Options** to view the time of a call; edit, view, or call the registered phone number; add it to the memory; or delete it from the list. You can also send a text message. To delete the recent calls lists, select *Clear log lists*.

■ Counters and timers

Note: The actual invoice for calls and services from your service provider may vary, depending upon network features, rounding off for billing, taxes and so forth.

Some timers may be reset during service or software upgrades.

Select **Menu** > *Log* > *Call duration*, *Packet data counter*, or *Packet data conn. timer* for approximate information on your recent communications.

■ Positioning information

The network may send you a location request. You can ensure that the network delivers location information of your phone only if you approve it (network service). Contact your network operator to subscribe and to agree upon the delivery of location information.

To accept or reject the location request, select **Accept** or **Reject**. If you miss the request, the phone automatically accepts or rejects it according to what you have agreed with your network operator. The

phone displays *1 missed position request*. To view the missed location request, select **Show**.

To view the information on the 10 most recent privacy notifications and requests or to delete them, select **Menu** > *Log* > *Positioning* > *Position log* > *Open folder* or *Delete all*.

9. Settings

■ Profiles

Your phone has various setting groups, called profiles, for which you can customize the phone tones for different events and environments.

Select **Menu** > *Settings* > *Profiles*. Scroll to a profile, and select it.

To activate the selected profile, select *Activate*.

To set the profile to be active until a certain time up to 24 hours, select *Timed*, and set the time the profile setting shall end. When the time set for the profile expires, the previous profile that was not timed, becomes active.

To personalize the profile, select *Personalise*. Select the setting you want to change, and make the changes. To change your presence status information, select *My presence* > *My availability* or *My presence message*. The *My presence* menu is available if you set *Synchronise with profiles* to *On*. See "My presence," p. 45.

■ Themes

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

Select **Menu** > *Settings* > *Themes* and from the following options:

Select theme — to set a theme in your phone. A list of folders in *Gallery* opens. Open the *Themes* folder, and select a theme.

Theme downloads — to open a list of links to download more themes. See "Download files," p. 91.

■ Tones

You can change the settings of the selected active profile.

Select **Menu** > *Settings* > *Tones* > *Incoming call alert*, *Ringing tone*, *Ringing volume*, *Vibrating alert*, *Voice options*, *Notification tone*, *Callback tone*, *Message alert tone*, *Instant message alert tone*, *Keypad*

tones, and *Warning tones*. You can find the same settings in the *Profiles* menu. See "Profiles," p. 52.

To set the phone to ring only for calls from phone numbers that belong to a selected caller group, select *Alert for*. Scroll to the caller group you want or *All calls*, and select **Mark**. Select **Save** to save the settings or **Cancel** to leave the settings unchanged.

If you select the highest ringing tone level, the ringing tone reaches its highest level after a few seconds.

■ Display

Standby mode settings

Select **Menu** > *Settings* > *Display* > *Standby mode settings* and from the following options:

Active standby — to switch the active standby mode on or off and to organize and personalize the active standby mode. See "Active standby mode," p. 17.

Wallpaper — to add the background image to the display in standby mode. To activate, or deactivate the wallpaper, select *On* or *Off*. Select *Image* to select an image from the *Gallery* or *Slide set* and a folder in the *Gallery* to use the images in the folder as a slide set. To download more images for wallpaper, select *Graphic downloads*.

Idle state font colour — to select the color for the texts on the display in the standby mode

Navigation key icons > *On* — to display the icons of the current navigation key shortcuts in the standby mode when active standby is off

Operator logo — to set your phone to display or hide the operator logo. The menu is dimmed, if you have not saved the operator logo. For more information on availability of an operator logo, contact your network operator.

Cell info display > *On* — to display the cell identity, if available from the network

Other display settings

Select **Menu** > *Settings* > *Display* and from the following options:

Screen saver > *On* — to activate the screen saver for the main display. To set the time after which the screen saver is activated, select *Time-out*. Select *Screen savers* to choose an *Image*, a *Slide set*, or a *Video clip* from the *Gallery* or *Digital clock* to be used as screensaver. To download more images for the screen saver, select *Graphic downloads*.

Power saver > *On* — to save some battery power. A digital clock is displayed when no function of the phone is used for a certain time.

Font size > *Messaging*, *Contacts*, or *Web* — to set the font size

■ Time and date

Select **Menu** > *Settings* > *Time and date* and from the following options:

Clock — to set the phone to show the clock in the standby mode, adjust the clock, and select the time zone and the time format

Date — to set the phone to show the date in the standby mode, set the date, and select the date format and date separator

Auto-update of date & time (network service) — to set the phone to automatically update the time and date according to the current time zone

■ My shortcuts

With personal shortcuts you get quick access to often used functions of the phone.

Left and right selection key

To set one phone function from a predefined list to the left or right selection key, select **Menu** > *Settings* > *My shortcuts* > *Left selection key* or *Right selection key*. See "Standby mode," p. 17. These menus may not be shown, depending on your service provider.

Navigation key

To assign other phone functions from a predefined list to the navigation key, select **Menu** > *Settings* > *My shortcuts* > *Navigation key*.

Enabling standby

To select keys to enable the standby navigation mode, select **Menu** > *Settings* > *My shortcuts* > *Enabling standby*.

Voice commands

To activate phone functions by saying a voice tag, select **Menu** > *Settings* > *My shortcuts* > *Voice commands*. Select a folder, scroll to a function to which you want to add a voice tag, and select **Add**. ⑤ indicates a voice tag.

To add a voice command, see "Add and manage voice tags," p. 48. To activate a voice command, see "Make a call by using a voice tag," p. 49.

■ Connectivity

You can connect the phone to a compatible device using an infrared, Bluetooth wireless technology, or USB data cable connection. You can also define the settings for packet data dial-up connections.

Bluetooth wireless technology

This device is compliant with Bluetooth Specification 1.1 supporting the following profiles: SIM access profile, object push profile, file transfer profile, dial-up networking profile, headset profile, hands-free profile, service discovery application profile, generic access profile, serial port profile, and generic object exchange profile. To ensure interoperability between other devices supporting Bluetooth technology, use Nokia approved enhancements for this model. Check with the manufacturers of other devices to determine their compatibility with this device.

There may be restrictions on using Bluetooth technology in some locations. Check with your local authorities or service provider.

Features using Bluetooth technology, or allowing such features to run in the background while using other features, increase the demand on battery power and reduces the battery life.

Bluetooth technology allows you to connect the phone to a compatible Bluetooth device within 10 meters. Since devices using Bluetooth technology communicate using radio waves, your phone and the other devices do not need to be in direct line-of-sight, although the connection can be subject to interference from obstructions such as walls or from other electronic devices.

Set up a Bluetooth connection

Select **Menu** > *Settings* > *Connectivity* > *Bluetooth*. Select from the following options:

Bluetooth > *On* or *Off* — to activate or deactivate the Bluetooth function. 	 indicates an active Bluetooth connection.

Search for audio enhancements — to search for compatible Bluetooth audio devices. Select the device that you want to connect to the phone.

Paired devices — to search for any Bluetooth device in range. Select **New** to list any Bluetooth device in range. Scroll to a device, and select **Pair**. Enter the Bluetooth passcode of the device to associate (pair) the device to your phone. You only must give this passcode when you connect to the device for the first time. Your phone connects to the device, and you can start data transfer.

Bluetooth wireless connection

Select **Menu** > *Settings* > *Connectivity* > *Bluetooth*. To check which Bluetooth connections are currently active, select *Active device*. To view a list of Bluetooth devices that are currently paired with the phone, select *Paired devices*.

Select **Options** to access some of the following functions depending on the status of the device and the Bluetooth connection. Select *Assign short name* or *Auto-conn. without confirmation*.

Bluetooth settings

To define how your phone is shown to other Bluetooth devices, select
Menu > *Settings* > *Connectivity* > *Bluetooth* > *Bluetooth settings* > *My phone's visibility* or *My phone's name*.

If you are concerned about security, turn off Bluetooth or set **My phone's visibility** to **Hidden**. Always accept only Bluetooth communication from others with whom you agree.

Infrared

You can set up the phone to send and receive data through its infrared (IR) port. To use an IR connection, the device with which you want to establish a connection must be IrDA compliant. You can send or receive data to or from a compatible phone or data device (for example, a computer) through the IR port of your phone.

Do not point the IR (infrared) beam at anyone's eyes or allow it to interfere with other IR devices. Infrared devices are Class 1 laser products.

When sending or receiving data, ensure that the IR ports of the sending and receiving devices are pointing at each other and that there are no obstructions between the devices.

To activate the IR port of your phone to receive data using IR, select *Menu* > *Settings* > *Connectivity* > *Infrared*.

To deactivate the IR connection, select **Menu** > *Settings* > *Connectivity* > *Infrared*. When the phone displays *Deactivate infrared?*, select **Yes**.

If data transfer is not started within 2 minutes after the activation of the IR port, the connection is cancelled and must be started again.

IR connection indicator

When ▶⋯ is shown continuously, the IR connection is activated, and your phone is ready to send or receive data through its IR port.

When ▶⋯ blinks, your phone is trying to connect to the other device, or a connection has been lost.

Packet data

General packet radio service (GPRS) is a network service that allows mobile phones to send and receive data over an Internet protocol (IP)-based network. GPRS is a data bearer that enables wireless access to data networks such as the Internet.

Enhanced GPRS (EGPRS) is similar to GPRS but enables faster connections. For more information on availability of EGPRS and data transfer speed, contact your network operator.

The applications that may use EGPRS are MMS, video streaming, Push to talk, browsing sessions, e-mail, remote SyncML, Java application downloading, and the PC dial-up.

When you have selected GPRS as a data bearer, the phone uses EGPRS instead of GPRS if this is available in the network. You cannot select between EGPRS and GPRS, but for some applications you may be able to select GPRS or *GSM data* (circuit switched data, CSD).

Packet data settings

You can connect the phone using Bluetooth wireless technology, infrared, or USB data cable connection to a compatible PC and use the phone as a modem to enable EGPRS for packet data connectivity from the PC.

To define the settings for packet data connections from your PC, select **Menu** > *Settings* > *Connectivity* > *Packet data* > *Packet data settings* > *Active access point*, activate the access point you want to use, and select *Edit active access point*. Select *Alias for access point*, enter a name to change the access point settings, and select **OK**. Select *Active access point*, enter the access point name (APN) to establish a connection to an packet data network, and select **OK**.

You can also set the packet data dial-up service settings (access point name) on your PC using the Nokia Modem Options software. See "PC Suite," on page 97. If you have set the settings both on your PC and on your phone, the PC settings are used.

Data transfer and synchronisation

Synchronize your calendar, contacts data, and notes with another compatible device (for example, a mobile phone, a compatible PC, or a remote Internet server (network service)).

Partner list

To copy or synchronize data from your phone, the name of the device and the settings must be in the list of partners in transfer contacts. If you receive data from another device (for example, a compatible mobile phone), the partner is automatically added to the list, using the contact data from the other device. *Server sync* and *PC sync* are the original items in the list.

To add a new partner to the list (for example a new device), select **Menu** > *Settings* > *Connectivity* > *Data transfer* > **Options** > *Add contact* > *Phone sync* or *Phone copy*, and enter the settings according to the transfer type.

To edit the copy and synchronize settings, select a contact from the partner list and **Options** > *Edit*.

To delete a partner, select a contact from the partner list and **Options** > *Delete*, and confirm *Delete transfer contact?*. You cannot delete *Server sync* or *PC sync*.

Data transfer with a compatible device

For synchronization, Bluetooth wireless technology or infrared is used. The other device is in the standby mode.

To start data transfer, select **Menu** > *Settings* > *Connectivity* > *Data transfer* and the transfer partner from the list, other than *Server sync* or *PC sync*. According to the settings, the selected data is copied or synchronized. The other device also must be activated for receiving data.

Data transfer without SIM card

Your phone allows data transfer when the SIM card is not inserted.

Switch on your phone with no SIM card inserted, and select **Transfer** and from the following options:

Transfer contacts — to select a contact, other than *Server sync* and *PC sync*, from the partner list to transfer data from your phone. The phone starts a synchronization or copy session.

Receive data > *Via Bluetooth* or *Via infrared* — to receive data from the other phone

Synchronize from a compatible PC
Before you synchronize data from calendar, notes, and contacts from a compatible PC, you must install the Nokia PC Suite software of your phone on the PC. Use Bluetooth wireless technology, infrared, or a USB data cable for the synchronization, and start the synchronization from the PC.

Synchronize from a server
To use a remote Internet server, you must subscribe to a synchronization service. For more information and the settings required for this service, contact your service provider. You may receive the settings as a configuration message. See "Configuration settings service," p. 10 and "Configuration," p. 63.

If you have saved data on the remote Internet server, to synchronize your phone, start the synchronization from your phone.

Select **Menu** > *Settings* > *Connectivity* > *Data transfer* > *Server sync*. Depending on the settings, select *Initialising sync* or *Initialising copy*.

Synchronizing for the first time or after an interrupted synchronization may take up to 30 minutes to complete, if the contacts or calendar are full.

USB data cable
You can use the USB data cable to transfer data between the phone and a compatible PC or a printer supporting PictBridge. You can also use the USB data cable with Nokia PC Suite.

To activate the phone for data transfer or picture printing, connect the data cable; when the phone displays *USB data cable connected. Select mode.*, select **OK**. Select from the following modes:

Default mode — to use the cable for PC Suite

Printing — to print pictures directly from the phone using a compatible printer

To change the USB mode, select **Menu** > *Settings* > *Connectivity* > *USB data cable* > *Default mode*, or *Printing*.

■ Call

Select **Menu** > *Settings* > *Call* and from the following options:

Call divert (network service) — to divert your incoming calls. You may not be able to divert your call, if some call barring functions are active. See *Call barring service* in "Security," p. 64.

Anykey answer > *On* — to answer an incoming call, briefly press any key, except the end key and the left and right selection keys

Automatic redial > *On* — to set your phone to make a maximum of 10 attempts to connect the call after an unsuccessful call attempt

Speed dialling > *On* — to activate speed dialing. To set up speed dialing, see "Speed dials,"' p. 49. To dial, press and hold the corresponding number key.

Call waiting > *Activate* — to set the network to notify you of an incoming call while you have a call in progress (network service). See "Call waiting," p. 22.

Summary after call > *On* — to briefly display the approximate duration and cost (network service) of the call after each call

Send my caller ID > *Yes*, *No*, or *Set by network* (network service)

Line for outgoing calls — to select the phone line 1 or 2 to make calls, if supported by your SIM card (network service)

Slide call handling — to change the slide opening function to answer and end a call when the slide is opened or closed

■ Phone

Select **Menu** > *Settings* > *Phone* and from the following options:

Phone language — to set the display and writing language. Select from the languages available.

Memory status — to view the free memory and the used memory in *Gallery*, *Messaging*, *Bookmarks*, and *Applications*

Automatic keyguard — to set the keypad of your phone to lock automatically after a preset time delay when the phone is in the standby mode and no function of the phone has been used. Select *On*, and you can set the time from 5 seconds to 60 minutes.

Security keyguard — to set the phone to ask for the security code when you unlock the keyguard. Enter the security code, and select *On*.

When the keyguard is on, calls still may be possible to the official emergency number programmed into your device.

Cell info display > *On* — to receive information from the network operator depending on the network cell used (network service)

Welcome note — to enter a welcome note to be shown briefly when the phone is switched on

Operator selection > *Automatic* — to set the phone automatically to select one of the cellular networks available in your area. With *Manual*, you can select a network that has a roaming agreement with your home network operator.

Confirm SIM service actions — see "SIM services," p. 96

Help text activation — to select whether the phone shows help texts

Start-up tone — to select whether the phone plays a start-up tone when the phone is switched on

■ Enhancements

This menu is shown only if the phone is or has been connected to a compatible mobile enhancement.

Select **Menu** > *Settings* > *Enhancements*. You can select an enhancement menu if the corresponding enhancement is, or has been, connected to the phone. Depending on the enhancement, select from the following options:

Default profile — to select the profile that you want to be automatically activated when you connect to the selected enhancement

Automatic answer — to set the phone to answer an incoming call automatically after 5 seconds. If *Incoming call alert* is set to *Beep once* or *Off*, automatic answer is off.

Lights — to set the lights permanently *On*. Select *Automatic* to set the lights on for 15 seconds after a key press.

Text phone > *Use text phone* > *Yes* — to use the text phone settings instead of headset or loopset settings

■ Configuration

You can configure your phone with settings that are required for certain services to function correctly. The services are browser, multimedia messaging, remote Internet server synchronization, presence, and e-mail application. Get the settings from your SIM card, from a service provider as a configuration message, or enter your personal settings manually. You can store configuration settings from up to 20 service providers in the phone and manage them within this menu.

To save the configuration settings received by a configuration message from a service provider, see "Configuration settings service," p. 10.

Select **Menu** > *Settings* > *Configuration* and from the following options:

Default configuration settings — to view the service providers saved in the phone. Scroll to a service provider, and select **Details** to view the applications that the configuration settings of this service provider support. To set the configuration settings of the service provider as default settings, select **Options** > *Set as default*. To delete configuration settings, select **Options** > *Delete*.

Activate default in all applications — to activate the default configuration settings for supported applications

Preferred access point — to view the saved access points. Scroll to an access point, and select **Options** > *Details* to view the name of the service provider, data bearer, and packet data access point or GSM dial-up number.

Connect to service provider support — to download the configuration settings from your service provider

Personal configuration settings — to add new personal accounts for various services manually, and to activate or delete them. To add a new personal account if you have not added any, select **Add new**; otherwise, select **Options** > *Add new*. Select the service type, and select and enter each of the required parameters. The parameters differ according to the selected service type. To delete or activate a personal account, scroll to it, and select **Options** > *Delete* or *Activate*.

■ Security

When security features that restrict calls are in use (such as call barring, closed user group and fixed dialing) calls still may be possible to the official emergency number programmed into your device.

Select **Menu** > *Settings* > *Security* and from the following options:

PIN code request — to set the phone to ask for your PIN or UPIN code every time the phone is switched on. Some SIM cards do not allow the code request to be turned off.

Call barring service — to restrict incoming calls to and outgoing calls from your phone (network service). A barring password is required.

Fixed dialling — to restrict your outgoing calls to selected phone numbers if this function is supported by your SIM card

Closed user group — to specify a group of people whom you can call and who can call you (network service)

Security level > *Phone* — the phone asks for the security code whenever a new SIM card is inserted into the phone. Select *Memory* and the phone asks for the security code when SIM card memory is selected and you want to change the memory in use.

Access codes — to set the PIN code or UPIN code in use, or to change the security code, PIN code, UPIN code, PIN2 code, and barring password

Code in use — to select whether the PIN code or UPIN code should be active

Pin2 code request — to select whether PIN2 code is required when using a specific phone feature which is covered by the PIN2 code

Authority certificates and *User certificates* — to view the list of the authority and user certificates downloaded into your phone. See "Certificates," p. 94.

Security module settings — See "Security module," p. 93.

■ Restore factory settings

To reset some of the menu settings to their original values, select **Menu** > *Settings* > *Restore factory sett.*. Enter the security code. The data you have entered or downloaded are not deleted, for example, the names and phone numbers saved in *Contacts*.

10. Operator menu

This menu lets you access a portal to services provided by your network operator. The name and the icon depend on the operator. For more information contact your network operator. If this menu is not shown the following menu numbers change accordingly.

The operator can update this menu with a service message. For more information, see "Service inbox," p. 92.

11. Gallery

In this menu you can manage graphics, images, recordings, video clips, themes, and tones. These files are arranged in folders.

Your phone supports an activation key system to protect acquired content. Always check the delivery terms of any content and activation key before acquiring them, as they may be subject to a fee.

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

The files stored in *Gallery* use a memory that may have a capacity of up to 23 MB depending on the size of the regional software on your phone.

To see the list of folders, select **Menu** > *Gallery*.

To see the available options of a folder, select a folder > **Options**.

To view the list of files in a folder, select a folder > **Open**.

To see the available options of a file, select a file > **Options**.

12. Media

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

■ Camera

You can take photos or record video clips with the built-in camera. The camera produces pictures in JPEG format and video clips in 3GP format.

When taking and using images or video clips, obey all laws and respect local customs as well as privacy and legitimate rights of others.

Keep a safe distance when using the flash. Do not use the flash on people or animals at close range. Do not cover the flash while taking a picture.

Camera modes and zoom

To start the camera in the still photo mode 	press the camera release key or select **Menu** > *Media* > *Camera*.
To start the camera in the video mode 	press and hold the camera release key.

To use the camera, hold the phone in a horizontal position. Press in this position the navigation key left or right to change between still photo and video mode. Press the navigation key up and down, or the volume keys to zoom in and out.

Take a photo

To take a photo in the select **Capture** or press the camera release key. The phone saves the photo in *Gallery* > *Images*. To take another photo, select **Back**; to send the photo as a multimedia message, select **Send**.

To take a self-portrait, turn the camera towards yourself, use the small mirror besides the camera lens as a view finder and press the camera release key.

Select **Options** to set *Night mode on* if the lighting is dim, *Flash on* to activate the camera flash, *Self-timer on* to activate the selftimer, and *Img. sequence on* to take photos in a fast sequence.

Record a video clip

To start the video recording select **Record**, or press the camera release key. To pause the recording, select **Pause**; to resume the recording, select **Continue**. To stop the recording, select **Stop**. The phone saves the recording in *Gallery* > *Video clips*.

When recording, the camera flash is on with a dimmed light as indicator to others, that a video is recorded.

Select **Options** > *Mute* to prevent the recording of sound.

Camera settings

Select **Options** > *Settings* to define image, video and camera parameters:

Image quality – to define the compression rate or quality of the images. The higher the image quality, the lower the compression rate. Higher image quality uses more memory space.

Image size – to define the image resolution or size.
Image resolution is expressed by multiplying the number of horizontal dots (width) by the number of vertical dots (height). The higher the resolution, the higher the image quality.

Video clip quality – choose high, medium, or low quality. High video clip quality uses more memory space.

Video clip length – choose *Default* to restrict the video length to a size that can be send by MMS, or choose *Maximum* to allow the available memory to be used for the video clip.

Camera sounds – when activated, a sound is played when you take a photo, and when you start the self-timer

Default title – to define the default name for photos or video clips. Use a predefined title or enter one yourself.

Default mode – Select *Still image* or *Video* as default mode when the *Camera* is activated.

■ Media player

With the media player you can view, play, and download files, such as images, audio, video, and animated images. You can also view compatible streaming videos from a network server (network service).

Select *Menu* > *Media* > *Media player* > *Open gallery*, *Bookmarks*, *Go to address*, or *Media downloads*.

While streaming audio or video, to rewind (Rew) or fast forward (FF) scroll left or right. To set the length of a scrolling jump, select *FF/Rew interval*.

Set up the phone for a streaming service

You may receive the configuration settings required for streaming as a configuration message from the network operator. See "Configuration settings service," p. 10. You can also enter the settings manually. See "Configuration," p. 63.

To activate the settings, do the following:

1. Select *Menu* > *Media* > *Media player* > *Streaming sett.*.

2. Select *Configuration*. Only the configurations that support streaming are shown. Select a service provider, *Default*, or *Personal config.* for streaming.

3. Select *Account* and a streaming service account contained in the active configuration settings.

■ Music player

Your phone includes a music player for listening to music tracks, recordings, or other MP3, MP4, or AAC sound files that you have transferred to the phone with the Nokia Audio Manager application. MP3 and AAC files are stored in the *Gallery* folders. Music files stored in the *Music player* folder and in another location, such as a folder of the phone memory, are automatically detected and added to the default track list.

Play music tracks

1. Select **Menu** > *Media* > *Music player*. The details of the first track on the default track list are shown.

   To use the graphical keys ▶ , ◄◄, ▶▶ , or ■ on the display, scroll left or right to the desired key, and select it.

2. To play a track, scroll to the track that you want, and select ▶ .

   To adjust the volume level, use the volume keys on the side of the phone.

   To skip to the beginning of the next track, select ▶▶ . To skip to the beginning of the previous track, select ◄◄ twice.

   To rewind the current track, select and hold ◄◄ . To fast forward the current track, select and hold ▶▶ . Release the key at the position you want.

3. To stop the playing, select ■ .

   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.

Music player options

Select *Music player* > **Options**. Some of following features may be available:

Play via bluetooth — to make a connection to an audio enhancement using a Bluetooth connection

Track list — to view all the tracks available on the track list. To play a track, scroll to the desired track, and select **Play**.

Select **Options** > *Refresh all tracks* or *Change track list* to refresh the track list (for example, after adding new tracks to the list) or to change the track list that is shown when you open the *Music player* menu, if several track lists are available in the phone

Play options > *Random* > *On* — to play the tracks in the track list in random order. Select *Repeat* > *Current track* or *All tracks* to play the current track or the entire track list repeatedly.

Media equaliser — to open the list of media equalizer sets. See "Equalizer," p. 74.

Loudspeaker or *Headset* — to listen to the music player through the loudspeaker or a compatible headset connected to the phone

Tip: When using a headset, you can skip to the next track by pressing the headset key quickly.

Send — to send the selected file using MMS, Bluetooth wireless technology, or an IR connection

Web page — to connect to a Web address attached to the current file in the track list

Music downloads — to connect to a browser service related to the current track. This function is only available when the address of the service is included in the track.

Memory status — to view the free and used memory capacity

■ Radio

The FM radio depends on an antenna other than the wireless device's antenna. A compatible headset or enhancement needs to be attached to the device for the FM radio to function properly.

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.

Listen to the radio

1. 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.

2. If you have already saved radio channels, select ▲ or ▼ to scroll to the channel you would like to listen to.

Tune a radio channel

1. When the radio is on, select ◀◀ , or ▶▶ to change the radio frequency in 0.05 MHz steps, or select and hold ◀◀ , or ▶▶ to start the channel search. Searching stops when a channel is found.

2. To save the channel to a memory location 1 to 9, press and hold the corresponding number key.

   To save the channel in the memory location from 10 to 20, press briefly **1** or **2**, and press and hold the desired number key **0** to **9**.

3. Enter the name of the channel, and select **OK**.

Basic radio functions

When the radio is on, do the following:

To turn off the radio, select **Options** > *Switch off*.

To save the radio channel you have found, select **Options** > *Save station*. See "Tune a radio channel," p. 72. You can save up to 20 radio channels.

To set whether the visual radio application is used, select **Options** > *Visual radio*. Some radio channels may send text or graphical information that you can view using the visual radio application.

To select the options for visual radio, select **Options** > *Visual radio sett.*. To set whether the visual radio application starts automatically when you turn on the radio, select *Enable visual service* > *Automatically*, *Manually*, or *Ask first*.

Select **Options** > *Visual radio sett.* > *Station directory* to access a Web site with a list of radio stations, and if available, their visual radio ID, which you can receive in your region.

To select the list of saved channels, select **Options** > *Stations*. To delete or rename a channel, or to enter the ID for a visual radio channel, scroll to the desired channel, and select **Options** > *Delete station*, *Rename*, or *Visual service ID*.

To listen to the radio in monophonic sound or in stereo, select **Options** > *Mono output* or *Stereo output*.

To listen to the radio using the loudspeaker or headset, select **Options** > *Loudspeaker* or *Headset*. Keep the headset connected to the phone. The lead of the headset functions as the radio antenna.

To enter the frequency of the desired radio channel, select **Options** > *Set frequency*.

You can normally make a call or answer an incoming call while listening to the radio. During the call, the volume of the radio is muted.

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

■ Recorder

You can record pieces of speech, sound, or an active call for up to 60 minutes, depending on available memory space.

The recorder cannot be used when a data call or packet data connection is active.

Record sound

1. Select **Menu** > *Media* > *Recorder*.

   To use the graphical keys, ● , ▮▮ , or ▮ , on the display, scroll left or right to the desired key, and select it.

2. To start the recording, select ● . To start the recording during a call, select **Options** > *Record*. While recording a call, all parties to the call hear a faint beeping sound about every 5 seconds. When recording a call, hold the phone in the normal position near to your ear.

3. To end the recording, select ▮ . The recording is saved in *Gallery* > *Recordings*.

Options after recording

To listen to the latest recording, select **Options** > *Play last recorded*.

To send the last recording using Bluetooth wireless technology or IR, select **Options** > *Send last recorded*.

Select *Menu* > *Media* > *Recorder* > *Options* > *Recordings list*. The list of folders in the *Gallery* is shown. Open *Recordings* to see the list with

recordings. Select **Options** to select options for files in the *Gallery*. See "Gallery," p. 66.

■ Equalizer

To control the sound quality when using the music player, amplify or diminish frequency bands.

Select **Menu** > *Media* > *Equaliser*.

To activate a set, scroll to one of the equalizer sets, and select **Activate**.

To view, edit, or rename a selected set, select **Options** > *View*, *Edit*, or *Rename*. Not all sets can be edited or renamed.

13. Push to talk

Select **Menu** > *Push to talk*.

Push to talk (PTT) over cellular is a two-way radio service available over a GPRS cellular network (network service).

You can use PTT to have a conversation with one person or with a group of people having compatible devices. While you are connected to the PTT service, you can use the other functions of the phone.

To check availability and costs, and to subscribe to the service, contact your network operator. Roaming services may be more limited than for normal calls.

Before you can use the PTT service, you must define the required PTT service settings. See "PTT settings," p. 80 and "Configuration settings," p. 81.

■ Push to talk channels

When you call a channel, all members joined to the channel hear the call simultaneously.

There are different types of PTT channels:

Public group — every channel member can invite other persons.

Private group — only persons which receive an invitation by the channel creator can join in.

Provisioned channel — permanent channel created by the service provider.

You can set the status of each channel to *Default*, *Listened*, or *Inactive*. *Default* and *Listened* are active channels. When you press the volume up key to make a channel call, the default channel is called if you have not scrolled to any other channel or contact.

Add a channel

To add a channel, select **Menu** > *Push to talk* > *Add channel* and enter the settings in the form fields:

Channel status: — Select *Default* to connect to this channel when push to talk is started, *Listened* to set the channel active, or *Inactive* to disable the channel.

Chnl. security: — Select *Public group* or *Private group*.

To send an invitation to the channel, select **Yes** when the phone requests it. You can send the invitation using a text message or IR.

To add a provisioned channel, select **Menu** > *Push to talk* > *Add channel* > **Options** > *Edit add. manually*. Enter the *Channel address:* provided by your service provider.

Receive an invitation

1. When you receive a text message invitation to a channel, *Channel invitation received:* is displayed.

2. To view the nickname of the person who sent the invitation and the channel address if the channel is not a private channel, select **View**.

3. To add the channel to your phone, select **Save**.

4. To set the status for the channel, select *Default*, *Listened*, or *Inactive*.

To reject the invitation, select **Exit** > **Yes**, or select **View** > **Discard** > **Yes**.

■ Switch PTT on and off

To connect to the PTT service, select **Menu** > *Push to talk* > *Switch PTT on* or press the PTT (volume up) key. 🔋 indicates the PTT connection. 📵 indicates that the service is temporarily unavailable. If you have added channels to the phone, you are automatically joined to the active (*Default* and *Listened*) channels, and the name of the default channel is displayed in the standby mode.

To disconnect from the PTT service, select *Switch PTT off*.

■ Make and receive a PTT call

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

To make a channel call, a one-to-one call, or a call to multiple recipients, you must hold the PTT (volume up) key as long as you talk. To listen to the response, release the PTT (volume up) key. Talking is allowed on a first-come, first-served basis. When you stop talking, the first person to press the volume up key can talk next.

You may be able to check the login status of your contacts in **Menu** > *Push to talk* > *Contacts list*. This service depends on your network operator and is only available for subscribed contacts. To subscribe a contact, select **Options** >*Subscribe contact*, or if one or more contacts are already marked *Subscribe marked*.

, or indicate that the person is either available or unknown. indicates that the person wants not to be disturbed, but can receive callback requests. indicates that the person has PTT not switched on.

Make a channel call

To make a call to the default channel, press the volume up key. A tone indicates that the access is granted, and the phone displays your nickname and channel name.

To make a call to a nondefault channel, select *Channel list* in the PTT menu, scroll to the desired channel, and press the volume up key.

Make a one-to-one call

To start a one-to-one call from the list of contacts to which you have added the PTT address, select *Contacts* or **Menu** > *Push to talk* > *Contacts list*. Scroll to a contact, and press the volume up key.

To start a one-to-one call from the list of PTT channels, select *Channel list*, and scroll to the desired channel and select **Members**. Scroll to the desired contact, and press the volume up key.

To start a one-to-one call from the list of callback requests you have received, select *Callback inbox*. Scroll to the desired nickname, and press the volume up key.

Make a PTT call to multiple recipients

You can select multiple PTT contacts from the contact list. The recipients receive an incoming call and need to accept the call in order to participate. If supported by your network operator, you also may select contacts with a phone number but without PTT number. For details, contact your network operator.

1. Select **Menu** > *Push to talk* > *Contacts list*, and mark the desired contacts.

2. Press the volume up key briefly to start the call. The participating contacts are shown on the display, as soon as they join the call.

3. Press and hold the volume up key to talk to them. Release the volume up key to hear the response.

4. Press the end key to terminate the call.

Receive a PTT call

A short tone notifies you of an incoming PTT call. Informations, such as the channel, the phone number, or the nickname (network service) of the caller are displayed.

You can either accept or reject an incoming one-to-one call if you have set the phone to first notify you of the one-to-one calls.

When you press the volume up key while the caller is talking, you hear a queuing tone, and *Queuing* is displayed. Press and hold the volume up key, and wait for the other person to finish; then you can talk immediately.

■ Callback requests

If you make a one-to-one call and do not get a response, you can send a request for the person to call you back.

Send a callback request

You can send a callback request in the following ways:

To send a callback request from the contacts list in the *Push to talk* menu, select *Contacts list*. Scroll to a contact, and select **Options** > *Send callback*.

To send a callback request from *Contacts*, search for the desired contact, and select **Details**. Scroll to the PTT address, and select **Options** > *Send callback*.

To send a callback request from the channel list in the PTT menu, select *Channel list*, and scroll to the desired channel. Select **Members**, scroll to the desired contact, and select **Options** > *Send callback*.

To send a callback request from the callback request list in the *Push to talk* menu, select *Callback inbox*. Scroll to a contact, and select **Options** > *Send callback*.

Respond to a callback request

When someone sends you a callback request, *Callback request received* is displayed in the standby mode.

To open the *Callback inbox*, select **View**. The list of nicknames of the persons who have sent you callback requests is shown.

To make a one-to-one call, select the desired request and press the volume up key.

To send a call request back to the sender, select **Options** > *Send callback*.

To delete the request, select **Delete**.

To save a new contact or to add the PTT address to a contact from a received callback request, select **Options** > *Save as* or *Add to contact*.

■ Add a one-to-one contact

You can save the names of persons to whom you often make one-to-one calls in the following ways:

To add a PTT address to a name in *Contacts*, search for the desired contact, select **Details** > **Options** > *Add detail* > *PTT address*. A contact will only appear in the PTT contact list, if the PTT address is entered.

To add a contact to the PTT contacts list, select **Menu** > *Push to talk* > *Contacts list* > **Options** > *Add contact*.

To add a contact from the channel list, connect to the Push to talk service, select *Channel list*, and scroll to the desired channel. Select **Members**, scroll to the member whose contact information you want to save, and select **Options**. To add a new contact, select *Save as*. To add a PTT address to a name in *Contacts*, select *Add to contact*.

■ PTT settings

Select **Menu** >*Push to talk* > *PTT settings*.

1 to 1 calls > *On* — to select the phone to allow the reception of incoming one-to-one calls. To make but not receive one-to-one calls, select *Off*. The service provider may offer some services that override these settings. To set the phone to first notify you of incoming one-to-one calls with a ringing tone, select *Notify*.

Listened channels > *On* — to activate the listened channels

Show my login status — to enable or disable the sending of the login status

PTT status in startup > *Yes* or *Ask first*— to set the phone to automatically connect to the PTT service when you switch the phone on

Push to talk when abroad — to switch the Push to talk service on or off when the phone is used outside of the home network

Send my PTT address > *No* — to hide your PTT address from channel and one-to-one calls

■ Configuration settings

You may receive the settings for connecting to the service from your service provider. See "Configuration settings service," p. 10. You can enter the settings manually. See "Configuration," p. 63.

To select the settings for connecting to the service, select Menu > *Push to talk* > *Config. settings*. Select from the following options:

Configuration — to select a service provider, *Default*, or *Personal config.* for PTT service. Only the configurations that support the PTT service are shown.

Account — to select a PTT service account contained in the active configuration settings

Other parameters are *PTT user name*, *Default nickname*, *PTT password*, *Domain*, and *Server address*.

■ Web

Select Menu > *Push to talk* > *Web* to access the Internet site of your push to talk provider.

14. Organizer

■ Alarm clock

You can set the phone to alarm at a desired time. Select **Menu** > *Organiser* > *Alarm clock*.

To set the alarm, select *Alarm time*, and enter the alarm time. To change the alarm time when the alarm time is set, select *On*. To set the phone to alert you on selected days of the week, select *Repeat alarm*.

To select the alarm tone or set a radio channel as the alarm tone, select *Alarm tone*. If you select the radio as an alarm tone, connect the headset to the phone. The phone uses the last channel you listened to as the alarm, and the alarm plays through the loudspeaker. If you remove the headset or switch off the phone, the default alarm tone replaces the radio.

To set a snooze time-out, select *Snooze time-out*.

Stop the alarm

The phone sounds an alert tone, and flashes *Alarm!* and the current time on the display, even if the phone was switched off. To stop the alarm, select **Stop** or open the phone. If you let the phone continue to sound the alarm for a minute or select **Snooze**, the alarm stops for the selected snooze time-out and then resumes.

If the alarm time is reached while the device is 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.

■ Calendar

Select **Menu** >*Organiser* > *Calendar*.

The current day is indicated by a frame. If there are any notes set for the day, the day is in bold type. To view the day notes, select **View**. To view a

week, select **Options** > *Week view*. To delete all notes in the calendar, select the month or week view, and select **Options** > *Delete all notes*.

Other options for the day view may be *Make a note*, *Delete*, *Edit*, *Move*, or *Repeat* a note; *Copy* a note to another day; *Send note* as text message or multimedia message, with IR or Bluetooth, or to the calendar of another compatible phone. In *Settings* you can set the date and time settings. In *Auto-delete notes* you can set the phone to delete old notes automatically after a specified time.

Make a calendar note

Select **Menu** > *Organiser* > *Calendar*. Scroll to the date you want, and select **Options** > *Make a note* and one of the following note types: *Meeting*, *Call*, *Birthday*, *Memo*, or *Reminder*.

A note alarm

The phone beeps and displays the note. With a call note on the display, to call the displayed number, press the call key. To stop the alarm and to view the note, select **View**. To stop the alarm for approximately 10 minutes, select **Snooze**. To stop the alarm without viewing the note, select **Exit**.

■ To-do list

To save notes for tasks that you must do, select **Menu** > *Organiser* > *To-do list*.

To create a note if no note is added, select **Add note**; otherwise, select **Options** > *Add*. Write the note, and select **Save**. Select the priority, the deadline, and the alarm type for the note.

To view a note, scroll to it, and select **View**.

You can also select an option to delete the selected note and delete all the notes that you have marked as done. You can sort the notes by priority or by deadline, send a note to another phone as a text message or a multimedia message, save a note as a calendar note, or access the calendar.

While viewing a note, you can also select an option to edit the deadline or priority for the note or mark the note as done.

■ Notes

To use this application for writing and sending notes, select **Menu** > *Organiser* > *Notes*. To create a note if no note is added, select **Add note**; otherwise, select **Options** > *Make a note*. Write a note, and select **Save**.

Other options for notes include deleting, and editing a note. While editing a note, you can also exit the text editor without saving the changes. You can send the note to compatible devices using a text message, a multimedia message, or IR. If the note is too long to send as a text message, the phone asks you to delete the appropriate number of characters from your note.

■ Calculator

The calculator in your phone adds, subtracts, multiplies, divides, calculates the square and the square root and converts currency values.

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

Select **Menu** > *Organiser* > *Calculator*. When 0 is displayed on the screen, enter the first number in the calculation. Press the **#** key for a decimal point. Select **Options** > *Add*, *Subtract*, *Multiply*, *Divide*, *Square*, *Square root*, or *Change sign*. Enter the second number. For a total, select **Equals**. Repeat this sequence as many times as it is necessary. To start a new calculation, first select and hold **Clear**.

To perform a currency conversion, select **Menu** > *Organiser* > *Calculator*. To save the exchange rate, select **Options** > *Exchange rate*. Select either of the displayed options. Enter the exchange rate, press the **#** key for a decimal point, and select **OK**. The exchange rate remains in the memory until you replace it with another one. To perform the currency conversion, enter the amount to be converted, and select **Options** > *In domestic* or *In foreign*.

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

■ Countdown timer

Select *Menu* > *Organiser* > *Timer*. Enter the alarm time in hours, minutes, and seconds, and select **OK**. If you wish, write your own note text that is displayed when the time expires. To start the countdown timer, select **Start**. To change the countdown time, select *Change time*. To stop the timer, select *Stop timer*.

If the alarm time is reached when the phone is in the standby mode, the phone sounds a tone and flashes the note text if it is set or *Countdown time up*. To stop the alarm, press any key. If no key is pressed, the alarm automatically stops within 60 seconds. To stop the alarm and to delete the note text, select **Exit**. To restart the countdown timer, select **Restart**.

■ Stopwatch

To measure time, take intermediate times, or take lap times, use the stopwatch. During timing, the other functions of the phone can be used. To set the stopwatch timing in the background, press the end key.

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.

Select *Menu* > *Organiser* > *Stopwatch* and from the following options:

Split timing — to take intermediate times. To start the time observation, select **Start**. Select **Split** every time that you want to take an intermediate time. To stop the time observation, select **Stop**. To save the measured time, select **Save**. To start the time observation again, select **Options** > *Start*. The new time is added to the previous time. To reset the time without saving it, select *Reset*. To set the stopwatch timing in the background, press the end key.

Lap timing — to take lap times. To set the stopwatch timing in the background, press the end key

Continue — to view the timing that you have set in the background

Show last — to view the most recently measured time if the stopwatch is not reset

View times or *Delete times* — to view or delete the saved times

15. Applications

■ Games

Your phone software includes some games.

Launch a game

Select **Menu** > *Applications* > *Games*. Scroll to the desired game, and select **Open**.

For options related to a game, see "Other application options," p. 87.

Game downloads

Select **Menu** > *Applications* > **Options** > *Downloads* > *Game downloads*. The list of available bookmarks is shown. To access the list of bookmarks in the *Web* menu, see "Bookmarks," p. 91.

Important: Only install and use applications and other software from sources that offer adequate security and protection against harmful software.

Game settings

To set sounds, lights, and shakes for the game, select *Menu* > *Applications* > **Options** > *App. settings*.

■ Collection

Your phone software includes some Java applications specially designed for this Nokia phone.

Launch an application

Select **Menu** > *Applications* > *Collection*. Scroll to an application, and select **Open**.

Other application options

Delete — to delete the application or application set from the phone

Details — to view additional information about the application

Update version — to check if a new version of the application is available for download from *Web* (network service)

App. access — to restrict the application from accessing the network. Different categories are shown. Select in each category one of the available permissions.

Web page — to provide further information or additional data for the application from an Internet page. This feature must be supported by the network. It is only shown if an Internet address has been provided with the application.

Download an application

Your phone supports J2ME™ Java applications. Make sure that the application is compatible with your phone before downloading it.

Important: Only install and use applications and other software from sources that offer adequate security and protection against harmful software.

You can download new Java applications in different ways.

Select **Menu** > *Applications* > **Options** > *Downloads* > *App. downloads*. The list of available bookmarks is shown. Select the appropriate bookmark to connect to the desired page. For the availability of different services, pricing, and tariffs, contact your service provider.

Use the game download function. See "Game downloads," p. 86.

Use the Nokia Application Installer in PC Suite to download the applications to your phone.

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.

16. Web

You can access various mobile Internet services with your phone browser.

Important: Use only services that you trust and that offer adequate security and protection against harmful software.

Check the availability of these network services, pricing, tariffs, and instructions with your service provider.

With the phone browser you can view the services that use wireless markup language (WML) or extensible hypertext markup language (XHTML) on their pages. Appearance may vary due to screen size. You may not be able to view all details of the Internet pages.

■ Set up browsing

You may receive the configuration settings required for browsing as a configuration message from the network operator that offers the service that you want to use. See "Configuration settings service," p. 10. You can also enter all the configuration settings manually. See "Configuration," p. 63.

■ Connect to a service

First, verify that the correct configuration settings of the service that you want to use are activated.

1. To select the settings for connecting to the service, select **Menu** > *Web* > *Settings* > *Configuration settings*.

2. Select *Configuration*. Only the configurations that support browsing service are shown. Select a service provider, *Default*, or *Personal config.* for browsing. See "Set up browsing," p. 88.

   Select *Account* and a browsing service account contained in the active configuration settings.

   Select *Display terminal window* > *Yes* to perform manual user authentication for intranet connections.

To make a connection to the service, select **Menu** > *Web* > *Home*; or in the standby mode, press and hold **0**.

To select a bookmark of the service, select **Menu** > *Web* > *Bookmarks*.

To select the last URL, select **Menu** > *Web* > *Last web address*.

To enter the address of the service, select **Menu** > *Web* > *Go to address*, enter the address of the service, and select **OK**.

■ Browse pages

After you make a connection to the service, you can start browsing its pages. The function of the phone keys may vary in different services. Follow the text guides on the phone display. For more information, contact your service provider.

If packet data is selected as the data bearer, $\textbf{G}$ is shown on the top left of the display during browsing. If you receive a call or a text message, or make a call during a packet data connection, $\textbf{N}$ is shown on the top right of the display to indicate that the packet data connection is suspended (on hold). After a call the phone tries to reconnect the packet data connection.

Browse with phone keys

Use the navigation keys to browse through the page.

To select a highlighted item, press the call key, or select **Select**.

To enter letters and numbers, press the keys, **0** to **9**. To enter special characters, press *****.

Options while browsing

In addition to the options available on your device, your service provider may offer other options.

Direct calling

The browser supports functions that you can access while browsing. You can make a phone call, and save a name and a phone number from a page.

■ Appearance settings

While browsing, select **Options** > *Other options* > *Appear. settings*; or in the standby mode, select **Menu** > *Web* > *Settings* > *Appearance settings* and from the following options:

Text wrapping > *On* — to set the text to continue on the next line on the display. If you select *Off*, the text is abbreviated

Font size to set the font size.

Show images > *No* — to hide pictures on the page. This can speed up the browsing of pages that contain a lot of pictures

Alerts > *Alert for unsecure connection* > *Yes* — to set the phone to alert when an encrypted connection changes to unencrypted during browsing

Alerts > *Alert for unsecure items* > *Yes* — to set the phone to alert when an encrypted page contains an unsecure item. These alerts do not guarantee a secure connection. For more information, see "Browser security," p. 93.

Character encoding > *Content encoding* — to select the encoding for the browser page content

Character encoding > *Unicode (UTF-8) web addresses* > *On* — to set the phone to send a URL as a UTF-8 encoding. You may need this setting when you access a Web page created in foreign language.

JavaScript > *Enable* — to allow the execution of Java scripts by the browser

■ Cookies

A cookie is data that a site saves in the cache memory of your phone. Cookies are saved until you clear the cache memory. See "Cache memory," p. 93.

While browsing, select **Options** > *Other options* > *Security* > *Cookie settings*; or in the standby mode, select **Menu** > *Web* > *Settings* > *Security settings* > *Cookies*. To allow or prevent the phone from receiving cookies, select *Allow* or *Reject*.

■ Scripts over secure connection

You can select whether to allow the running of scripts from a secure page. The phone supports WML scripts.

1. While browsing, select **Options** > *Other options* > *Security settings* > *WMLScript sett.*; or in the standby mode, select **Menu** > *Web* > *Settings* > *Security settings* > *WMLScripts over secure connection*.

2. To allow the scripts, select *Allow*.

■ Bookmarks

You can save page addresses as bookmarks in the phone memory.

1. While browsing, select **Options** > *Bookmarks*; or in the standby mode, select **Menu** > *Web* > *Bookmarks*.

2. Select a bookmark; or press the call key to make a connection to the page associated with the bookmark.

3. Select **Options** to view, edit, delete, or send the bookmark; create a new bookmark; or save the bookmark to a folder.

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.

Receive a bookmark

When you have received a bookmark that is sent as a bookmark, *1 bookmark received* is displayed. To save the bookmark, select **Show** > **Save**. To view or delete the bookmark, select **Options** > *View* or *Delete*. To discard the bookmark directly after you have received the bookmark, select **Exit** > **OK**.

■ Download files

To download more tones, images, games, or applications to your phone (network service), select **Menu** > *Gallery* or *Applications* > **Options** > *Downloads* and from the available downloads.

Important: Only install and use applications and other software from sources that offer adequate security and protection against harmful software.

To save all downloaded files automatically in *Gallery*, select **Menu** > *Web* > *Settings* > *Downloading settings* > *Automatic saving* > *On*.

■ Service inbox

The phone is able to receive service messages (pushed messages) sent by your service provider (network service). Service messages are notifications of, for example, news headlines, and they may contain a text message or an address of a service.

To access the *Service inbox* in the standby mode, when you have received a service message, select **Show**. If you select **Exit**, the message is moved to the *Service inbox*. To access the *Service inbox* later, select **Menu** > *Web* > *Service inbox*.

To access the *Service inbox* while browsing, select **Options** > *Other options* > *Service inbox*. Scroll to the message you want, and to activate the browser and download the marked content, select **Retrieve**. To display detailed information on the service notification or to delete the message, select **Options** > *Details* or *Delete*.

Service inbox settings

Select **Menu** > *Web* > *Settings* > *Service inbox settings*.

To set whether you want to receive service message, select *Service messages* > *On* or *Off*.

To set the phone to receive service messages only from content authors approved by the service provider, select *Message filter* > *On*. To view the list of the approved content authors, select *Trusted channels*.

To set the phone to automatically activate the browser from the standby mode when the phone has received a service message, select *Automatic connection* > *On*. If you select *Off*, the phone activates the browser only after you select *Retrieve* when the phone has received a service message.

■ Cache memory

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 is stored in the cache.

To empty the cache, while browsing, select *Options* > *Other options* > *Clear the cache*; in the standby mode, select *Menu* > *Web* > *Clear the cache*.

■ Browser security

Security features may be required for some services, such as online banking or shopping. For such connections you need security certificates and possibly a security module, which may be available on your SIM card. For more information, contact your service provider.

Security module

The security module improves security services for applications requiring a browser connection, and allows you to use a digital signature. The security module may contain certificates as well as private and public keys. The certificates are saved in the security module by the service provider. See also "Access codes," p. 9.

Select *Menu* > *Settings* > *Security* > *Security module settings* and from the following options:

Security module details — to show the security module title, status, manufacturer, and serial number

Module PIN request — to set the phone to ask for the module PIN when using services provided by the security module. Enter the code, and select *On*. To disable the module PIN request, select *Off*.

Change module PIN — to change the module PIN, if allowed by the security module. Enter the current module PIN code, then the new code twice.

Change signing PIN — to change the signing PIN code for the digital signature. Select the signing PIN you want to change. Enter the current PIN code, then the new code twice.

Certificates

Important: Even if the use of certificates makes the risks involved in remote connections and software installation considerably smaller, they must be used correctly in order to benefit from increased security. The existence of a certificate does not offer any protection by itself; the certificate manager must contain correct, authentic, or trusted certificates for increased security to be available. Certificates have a restricted lifetime. If Expired certificate or Certificate not valid yet is shown even if the certificate should be valid, check that the current date and time in your device are correct.

Before changing any certificate settings, you must make sure that you really trust the owner of the certificate and that the certificate really belongs to the listed owner.

There are three kinds of certificates: server certificates, authority certificates, and user certificates. You may receive these certificates from your service provider. Authority certificates and user certificates may also be saved in the security module by the service provider.

To view the list of the authority or user certificates downloaded into your phone, select *Menu* > *Settings* > *Security* > *Authority certificates* or *User certificates*.

The security indicator 🔒 is displayed during a connection, if the data transmission between the phone and the content server is encrypted.

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.

Digital signature

You can make digital signatures with your phone if your SIM card has a security module. Using the digital signature can be the same as signing your name to a paper bill, contract, or other document.

To make a digital signature, select a link on a page, for example, the title of the book you want to buy and its price. The text to sign, which may include the amount and date, is shown.

Check that the header text is *Read* and that the digital signature icon
🔒✍ is shown.

If the digital signature icon does not appear, there is a security breach,
and you should not enter any personal data such as your signing PIN.

To sign the text, read all of the text first, and select **Sign**.

The text may not fit within a single screen. Therefore, make sure to scroll
through and read all of the text before signing.

Select the user certificate you want to use. Enter the signing PIN (see
"Access codes," p. 9), and select **OK**. The digital signature icon
disappears, and the service may display a confirmation of your purchase.

17. SIM services

Your SIM card may provide additional services that you can access. This menu is shown only if it is supported by your SIM card. The name and contents of the menu depend on the SIM card.

For availability and information on using SIM card services, contact your SIM card vendor. This may be the service provider, network operator, or other vendor.

To set the phone to show you the confirmation messages sent between your phone and the network when you are using the SIM services, select **Menu** > *Settings* > *Phone* > *Confirm SIM service actions* > *Yes*.

Accessing these services may involve sending messages or making a phone call for which you may be charged.

18. PC connectivity

You can send and receive e-mail, and access the Internet when your phone is connected to a compatible PC through an infrared, Bluetooth wireless technology, or a USB data cable connection. You can use your phone with a variety of PC connectivity and data communications applications.

■ PC Suite

With PC Suite you can synchronize *Contacts*, *Calendar*, *To-do list*, and *Notes* between your phone, and the compatible PC, or a remote Internet server (network service).

You may find more information about PC Suite in the support area on the Nokia Web site at <www.nokia.com/support>.

■ Packet data, HSCSD, and CSD

With your phone you can use the packet data, high-speed circuit switched data (HSCSD), and circuit switched data (CSD, *GSM data*).

For availability and subscription to data services, contact your network operator.

The use of HSCSD services consumes the phone battery faster than normal voice or data calls. You may need to connect the phone to a charger for the duration of data transfer. See "Packet data," p. 58.

■ Data communication applications

For information on using a data communication application, refer to the documentation provided with it. Making or answering phone calls during a computer connection is not recommended, as it might disrupt the operation. For better performance during data calls, place the phone on a stationary surface with the keypad facing down. Do not move the phone by holding it in your hand during a data call.

19. Battery information

■ Charging and discharging

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, replace the 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 fully charged battery connected to a charger, since overcharging may shorten its lifetime. If left unused, a fully charged battery will lose its charge over time.

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 and its ability to charge. Always try to keep the battery between 15°C and 25°C (59°F and 77°F). 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 as they may explode. Batteries may also explode if damaged. 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:

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 left, right, down, and up, 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.
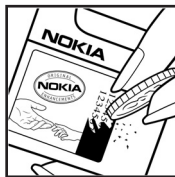
4. Confirm that the 20-digit code is valid by following the instructions at www.nokia.com/batterycheck.

   To create a text message, enter the 20-digit code, for example, 12345678919876543210, and send to +44 7786 200276. National and international operator charges will apply.

   You should receive a message indicating whether the code can be authenticated.

What if your battery is not authentic?

If you cannot confirm that your Nokia battery with the hologram on the 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.

20. Technical Information

Weight	92 grams (3.2 ounces) incl. BL-4B battery
Battery	700 mAh Li-Ion Battery
Networks	Wireless networks GSM 900, 1800 and 1900
Size	Volume: 4.6 cubic inches (76 ccm)
	Length: 3.3 inches (84 mm)
	Width: 1.9 inches (47 mm)
	Thickness: 0.9 inches (23 mm)
Frequency range (Rx)	GSM 900: 925 - 960 MHz
	GSM1800: 1805 - 1865 MHz
	GSM1900: 1930 - 1990 MHz
Frequency range (Tx)	GSM 900: 880 - 915 MHz
	GSM 1800: 1710 - 1785 MHz
	GSM 1900: 1850 - 1910 MHz
Tx output power	2 W (max)
Battery voltage	3.7 V DC
Number of channels	299
Memory size	23 MB
Operating temperature	59 °F to 77 °F (15 °C to 25 °C)

Care and maintenance

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.

- 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.
- Always create a backup of data you want to keep (such as contacts and calendar notes) before sending your device to a service facility.

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.

Additional safety information

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 1.5 centimeters (5/8 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.

Parts of the device are magnetic. Metallic materials may be attracted to the device, and persons with a hearing aid should not hold the device to the ear with the hearing aid. Do not place credit cards or other magnetic storage media near the device, because information stored on them may be erased.

■ 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 15.3 centimeters (6 inches) be maintained between a wireless phone and a pacemaker to avoid potential interference with the pacemaker. These recommendations are consistent with the independent research by and

recommendations of Wireless Technology Research. Persons with pacemakers should do the following:

- Always keep the device more than 15.3 centimeters (6 inches) from the pacemaker
- 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 suspect interference, switch off your device, and move the device away.

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, and 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 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.

Using your device while flying in aircraft is prohibited. Switch off your device before boarding an aircraft. The use of wireless teledevices 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 refueling 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 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.

■ 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:

1. If the device is not on, switch it on. Check for adequate signal strength.

   Some networks may require that a valid 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. Emergency numbers vary by location.

4. Press the call key.

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 the offline or flight mode, you must change the profile to activate the phone function before you can make an emergency call. Consult this guide or your service provider for more information.

If certain features are in use, you may first need to turn those features off before you can make an emergency call. Consult this guide or your service provider for more information.

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 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 10 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.

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.

USA and Canada: The SAR limit of USA (FCC) and Canada (IC) is 1.6 W/kg averaged over 1 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 0.79 W/kg and when properly worn on the body is 0.48 W/kg. 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: QTKRM-82.

APPENDIX

■ A message from the CTIA

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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 phone or not.

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

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

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

Wireless phone "Safety Tips"

1. Get to know your wireless phone and its features such as speed dial and redial. Carefully read your instruction manual and learn to take advantage of valuable features most phones offer, including automatic redial and memory.

Also, work to memorize the phone keypad so you can use the speed dial function without taking your attention off the road.

2. When available, use a hands free device. A number of hands free wireless phone accessories are readily available today. Whether you choose an installed mounted device for your wireless phone or a speaker phone accessory, take advantage of these devices if available to you.

3. Position your wireless phone within easy reach. Make sure you place your wireless phone within easy reach and where you can grab it without removing your eyes from the road. If you get an incoming call at an inconvenient time, if possible, let your voice mail answer it for you.

4. .Suspend conversations during hazardous driving conditions or situations. Let the person you are speaking with know you are driving; if necessary, suspend the call in heavy traffic or hazardous weather conditions. Rain, sleet, snow and ice can be hazardous, but so is heavy traffic. As a driver, your first responsibility is to pay attention to the road.

5. Do not take notes or look up phone numbers while driving. If you are reading an address book or business card, or writing a "to do" list while driving a car, you are not watching where you are going. It's common sense. Don't get caught in a dangerous situation because you are reading or writing and not paying attention to the road or nearby vehicles.

6. Dial sensibly and assess the traffic; if possible, place calls when you are not moving or before pulling into traffic. Try to plan your calls before you begin your trip or attempt to coincide your calls with times you may be stopped at a stop sign, red light or otherwise stationary. But if you need to dial while driving, follow this simple tip--dial only a few numbers, check the road and your mirrors, then continue.

7. Do not engage in stressful or emotional conversations that may be distracting. Stressful or emotional conversations and driving do not mix-- they are distracting and even dangerous when you are behind the wheel of a car. Make people you are talking with aware you are driving and if necessary, suspend conversations which have the potential to divert your attention from the road.

8. Use your wireless phone to 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.

9. 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!

10. 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.

11. Call roadside assistance or a special wireless non-emergency assistance number when necessary. Certain situations you encounter while driving may require attention, but are not urgent enough to merit a call for emergency services. But you still can use your wireless phone to lend a hand. If you see a broken-down vehicle posing no serious hazard, a broken traffic signal, a minor traffic accident where no one appears injured or a vehicle you know to be stolen, call roadside assistance or other special non-emergency wireless number.

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

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

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

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

■ Message from the FDA

The U.S. Food and Drug Administration (FDA) provides the following consumer information about wireless phones.

See http://www.fda.gov/cellphones/ for updated information.

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.

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

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

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

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

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

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

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

FDA shares regulatory responsibilities for wireless phones with the Federal Communications Commission (FCC). All phones that are sold in the United States must comply with FCC safety guidelines that limit RF exposure. FCC relies on FDA and other health agencies for safety questions about wireless phones.

FCC also regulates the base stations that the wireless phone networks rely upon. While these base stations operate at higher power than do the wireless phones themselves, the RF exposures that people get from these base stations are typically thousands of times lower than those they can get from wireless phones. Base stations are thus not the primary subject of the safety questions discussed in this document.

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

FDA is working with the U.S. National Toxicology Program and with groups of investigators around the world to ensure that high priority animal studies are conducted to address important questions about the effects of exposure to radiofrequency energy (RF). FDA has been a leading participant in the World Health Organization International Electromagnetic Fields (EMF) Project since its inception in 1996. An influential result of this work has been the development of a detailed agenda of research needs that has driven the establishment of new research programs around the world. The Project has also helped develop a series of public information documents on EMF issues. FDA and the Cellular Telecommunications & Internet Association (CTIA) have a formal Cooperative Research and Development Agreement (CRADA) to do research on wireless phone safety. FDA provides the scientific oversight, obtaining input from experts in government, industry, and academic organizations. CTIA-funded research is conducted through contracts to independent investigators. The initial research will include both laboratory studies and studies of wireless phone users. The CRADA will also include a broad assessment of additional research needs in the context of the latest research developments around the world.

What steps can I take to reduce my exposure to radiofrequency energy from my wireless phone?

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

If you must conduct extended conversations by wireless phone every day, you could place more distance between your body and the source of the RF, since the

exposure level drops off dramatically with distance. For example, you could use a headset and carry the wireless phone away from your body or use a wireless phone connected to a remote antenna

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

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.

Do hands-free kits for wireless phones reduce risks from exposure to RF emissions?

Since there are no known risks from exposure to RF emissions from wireless phones, there is no reason to believe that hands-free kits reduce risks. Hands-free kits can be used with wireless phones for convenience and comfort. These systems reduce the absorption of RF energy in the head because the phone, which is the source of the RF emissions, will not be placed against the head. On the other hand, if the phone is mounted against the waist or other part of the body during use, then that part of the body will absorb more RF energy. Wireless phones marketed in the U.S. are required to meet safety requirements regardless of whether they are used against the head or against the body. Either configuration should result in compliance with the safety limit.

Do wireless phone accessories that claim to shield the head from RF radiation work?

Since there are no known risks from exposure to RF emissions from wireless phones, there is no reason to believe that accessories that claim to shield the head from those emissions reduce risks. Some products that claim to shield the user from RF absorption use special phone cases, while others involve nothing

more than a metallic accessory attached to the phone. Studies have shown that these products generally do not work as advertised. Unlike "hand-free" kits, these so-called "shields" may interfere with proper operation of the phone. The phone may be forced to boost its power to compensate, leading to an increase in RF absorption. In February 2002, the Federal trade Commission (FTC) charged two companies that sold devices that claimed to protect wireless phone users from radiation with making false and unsubstantiated claims. According to FTC, these defendants lacked a reasonable basis to substantiate their claim.

How does FCC Audit Cell Phone RF?

After FCC grants permission for a particular cellular telephone to be marketed, FCC will occasionally conduct "post-grant" testing to determine whether production versions of the phone are being produced to conform with FCC regulatory requirements. The manufacturer of a cell phone that does not meet FCC's regulatory requirements may be required to remove the cell phone from use and to refund the purchase price or provide a replacement phone, and may be subject to civil or criminal penalties. In addition, if the cell phone presents a risk of injury to the user, FDA may also take regulatory action. The most important post-grant test, from a consumer's perspective, is testing of the RF emissions of the phone. FCC measures the Specific Absorption Rate (SAR) of the phone, following a very rigorous testing protocol. As is true for nearly any scientific measurement, there is a possibility that the test measurement may be less than or greater than the actual RF emitted by the phone. This difference between the RF test measurement and actual RF emission is because test measurements are limited by instrument accuracy, because test measurement and actual use environments are different, and other variable factors. This inherent variability is known as "measurement uncertainty." When FCC conducts post-grant testing of a cell phone, FCC takes into account any measurement uncertainty to determine whether regulatory action is appropriate. This approach ensures that when FCC takes regulatory action, it will have a sound, defensible scientific basis.

FDA scientific staff reviewed the methodology used by FCC to measure cell phone RF, and agreed it is an acceptable approach, given our current understanding of the risks presented by cellular phone RF emissions. RF emissions from cellular phones have not been shown to present a risk of injury to the user when the measured SAR is less than the safety limits set by FCC (an SAR of 1.6 w/kg). Even in a case where the maximum measurement uncertainty permitted by current measurement standards was added to the maximum permissible SAR, the resulting SAR value would be well below any level known to produce an acute effect. Consequently, FCC's approach with measurement uncertainty will not

result in consumers being exposed to any known risk from the RF emitted by cellular telephones.

FDA will continue to monitor studies and literature reports concerning acute effects of cell phone RF, and concerning chronic effects of long-term exposure to cellular telephone RF (that is, the risks from using a cell phone for many years). If new information leads FDA to believe that a change to FCC's measurement policy may be appropriate, FDA will contact FCC and both agencies will work together to develop a mutually-acceptable approach.

Updated July 29, 2003

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