Nokia 6234 User Guide

Draft 1

9246861
Issue 1

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A copy of the Declaration of Conformity can be found from http://www.nokia.com/phones/declaration_of_conformity/.

CE 0434

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

FCC/INDUSTRY CANADA NOTICE

Your device may cause TV or radio interference (for example, when using a telephone in close proximity to receiving equipment). The FCC or Industry Canada can require you to stop using 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. Any changes or modifications not expressly approved by Nokia could void the user's authority to operate this equipment.

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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.

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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; GSM 1800 and1900; and WCDMA2100 networks. Contact your service provider for more information about networks.

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

When you take and use images or video clips, obey all laws and respect local customs as well as 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

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device may also have been specially configured. This configuration may include 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 multimedia messaging (MMS), browsing, instant messaging, presence-enhanced contacts, remote synchronization, and content downloading using the browser or MMS, require network support for these technologies.

Shared memory

The following features in this device may share memory: my items, contacts, text messages, multimedia messages, instant messages, e-mail, calendar, to-do notes, Java™ games and applications, and note application. 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.

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General information

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. 102.

If you enter an incorrect security code five times in succession, the phone ignores further entries of the code. Wait for 5 minutes, and enter the code again.

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. 102. The PIN code is usually supplied with the SIM card. Set the phone to request the PIN code each time the phone is switched on.

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. 43. The module PIN is supplied with the SIM card if the SIM card has a security module in it.

The signing PIN is required for the digital signature. See "Digital signature," p. 44. The signing PIN is supplied with the SIM card if the SIM card has a security module in it.

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. If the codes are not supplied with the SIM card, contact your service provider for the codes.

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Barring password

The barring password (4 digits) is required when you use the *Call barring service*. See "Security," p. 102. You can obtain the password from your service provider. If you enter an incorrect barring password three times in succession, the password is blocked. Contact your service provider or network operator.

Configuration settings service

Before you use multimedia messaging, instant messaging and presence, push to talk, e-mail, synchronization, streaming, and the browser, you must have the proper configuration settings on your phone. You may receive the settings directly as a configuration message, which you save to your phone. For more information on availability, contact your network operator, service provider, or nearest authorized Nokia dealer.

When you have received the settings as a configuration message, and the settings are not automatically saved and activated, *Configuration settings received* is displayed.

To save the received settings, select Show > Save. If the phone requests *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, these settings are saved and set as default configuration settings. Otherwise, the phone asks, *Activate saved configuration settings?*

To discard the received settings, select Show > Discard.

Download content and applications

You may be able to download content, such as themes, tones, and video clips, to the phone (network service). Select the download function (for example, in *My Items*). To access the download function, see the respective menu descriptions. For 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.

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Nokia support and contact information

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 products and services. If you need to contact customer service, check the list of local Nokia contact centers at www.nokia.com/customerservice.

For maintenance services, check your nearest Nokia service center at www.nokia.com/repair.

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1. Get started

Install the SIM card and the battery

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

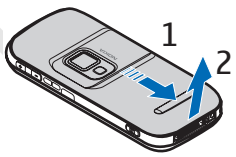
Keep all SIM cards out of the reach of small children.

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.

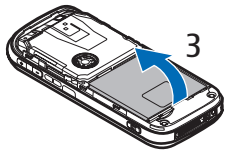
This device is intended for use with the BP-6M-S battery.

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

1. With the back of the phone facing you, slide the back cover (1) to remove it from the phone (2).

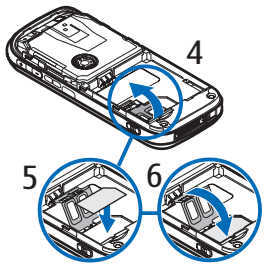


2. To remove the battery, lift it as shown (3).



3. To release the SIM card holder, gently pull the locking clip of the card holder, and open it (4)
   Insert the SIM card into the SIM card holder (5). Make sure that the SIM card is properly inserted and that the gold-colored contact area on the card is facing downwards.

   Close the SIM card holder (6), and press it until it snaps into position.



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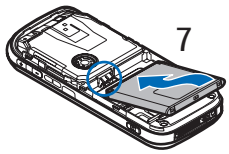
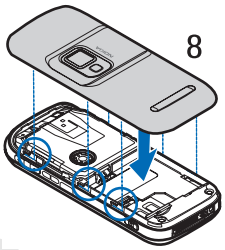
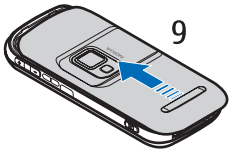
4. Replace the battery (7)



5. Place the back cover in the correct position (8).



6. Slide the back cover into place (9).



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Install a memory card

The phone's microSD card included with your phone contains preloaded ringing tones, themes, tones, and graphics. If you delete, reload, or replace this card, these functions and features may not function properly.

Use only compatible microSD cards with this device. Other memory cards, such as reduced size MMCs, do not fit in the memory card slot and are not compatible with this device. Using an incompatible memory card may damage the memory card as well as the device, and data stored on the incompatible card may be corrupted.

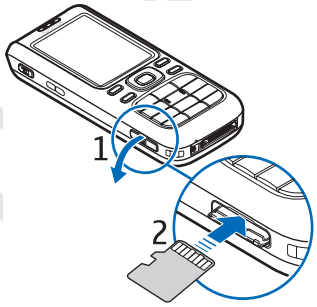
Use only microSD cards approved by Nokia for use with this device. Nokia utilizes the approved industry standards for memory cards but not all other brands may function correctly or be fully compatible with this device.

You can use a memory card to extend the memory of *My Items*. See "My Items," p. 71.

You can insert or change the memory card without switching the phone off.

Important: Do not remove the memory card in the middle of an operation when the card is being accessed. Removing the card in the middle of an operation may damage the memory card as well as the device, and data stored on the card may be corrupted.

To insert the memory card, open the memory card holder as shown (1). Place the memory card in the card holder (2). Make sure that the memory card is properly inserted—that it clicks into the holder—and that the gold-colored contact area on the card is facing upwards. Close the memory card holder.



You can use the memory card to save your multimedia files, such as video clips, sound files, and images, in *My Items*.

To format the memory card, see "Format memory card," p. 71.

Charge the battery

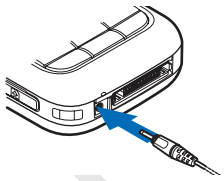
Check the model number of any charger before use with this device. This device is intended for use when supplied with power from the AC-4, AC-1, AC-3, or DC-4 charger.

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

For availability of approved enhancements, please check with your dealer. When you disconnect the power cord of any enhancement, grasp and pull the plug, not the cord.

1. Connect the charger to a wall outlet.
2. Connect the plug from the charger into the CA-44 charging adapter (not provided with the phone), and the adapter plug into the jack on the bottom of your phone.

   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.

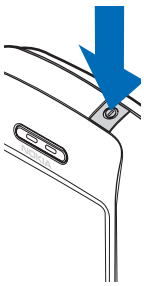


The charging time depends on the charger and the battery used. For example, charging a BP-6M Li-Ion battery with the AC-4 charger takes about 1 hour and 55 minutes while the phone is in the standby mode.

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 and hold the power key as shown.



If the phone asks for a PIN or UPIN code, enter the code, and select OK.

You can switch on the phone in demo mode without a SIM card inserted. In this mode, all bearer-independent features are available, and you can make emergency calls.

Set the time, time zone, and date

Enter the local time, select the time zone of your location in terms of the time difference with respect to Greenwich Mean Time (GMT), and enter the date. See "Time and date," p. 91.

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Plug and play service

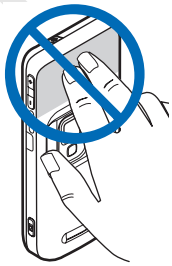
When you switch on your phone for the first time, and the phone is in the standby mode, you may be asked to get the configuration settings from your service provider (network service). Confirm or decline the query. See *Connect to serv. support* in "Configuration," p. 101 and "Configuration settings service," p. 10.

Normal operating position

Use the phone only in its normal operating position.

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.



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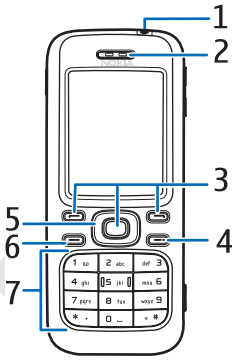
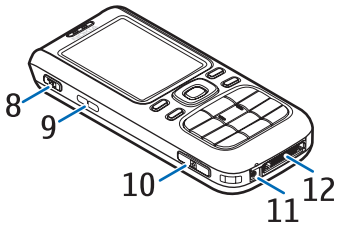
2. Your phone

Keys and parts

- Power key (1)
- Earpiece (2)
- Left, middle, and right selection keys (3)
- End key (4)
- 4-way navigation key (5)
- Call key (6)
- Number keys (7)



- Push to talk key (8)
- Loudspeaker (9)
- Memory card slot (10)
- Charger connector (11)
- Enhancements connector (12)



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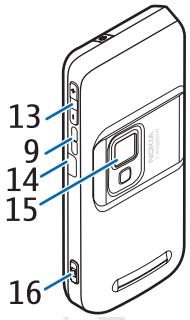
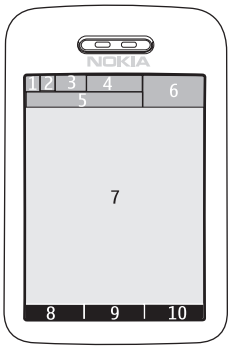
- Volume keys (13)
- Infrared (IR) port (14)
- Camera lens (15)
- Camera key (16)



Standby mode

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



- 3G indicator (1)
- Signal strength of the cellular network (2)
- Battery charge level (3)
- Indicators (4)
- The name of the network or the operator logo (5)
- Clock (6)
- Display (7)
- The left selection key (8) is Go to or a shortcut to another function. See "Left selection key," p. 91.
- The middle selection key (9) mode is Menu.
- The right selection key (10) may be Names to access the list of contacts in the *Contacts* menu, an operator-specific name to access an operator-specific Web site, or a shortcut to a function that you selected. See "Right selection key," p. 92.

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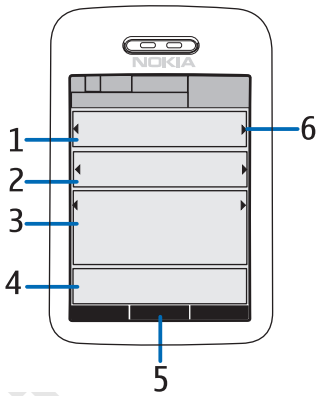
Active standby

In the active standby mode, the phone can display separate content item windows, such as shortcuts (1), audio functions (2), the calendar (3), and a user note (4). To select whether active standby is shown, see *Active standby* in "Standby settings," p. 89.



When active standby is idle, to access the menu structure, select **Menu** (5). To access the features in active standby, press the navigation key up or down.

To change the key to access the navigation mode, see *Enabling active standby* in "Standby settings," p. 89. When the arrow indicators (6) are shown, you can scroll the item left and right.

Content items in the navigation mode

Shortcut bar — To select a shortcut, scroll to the desired function, using left/right navigation key, and select it.

To change or organize the shortcuts when in the navigation mode, select **Options** > *Active standby* > *My active standby* > **Options** > *Personalise* > **Options** > *Select links* or *Organise links*.

Audio applications — To switch on the radio or the music player, scroll to and select it. To change a track in the music player or a channel in the radio, scroll left or right. To start the radio channel search, scroll and hold left or right.

Calendar — To view today's notes, select the desired one. To view the notes for the previous or next days, scroll left or right.

My note — To enter a note, select the content window, write your note, and save it.

Countdown timer — To start the countdown timer, select the content item. The remaining time with a note is shown.

General indicators — To show standby indicators, such as date, cell info display, info messages, PTT default group name and closed user group index. The date is shown if the calendar is not selected as active standby content.

Standby mode shortcuts

- To access the list of dialed numbers, press the call key once. See "Make a voice call," p. 23.
- To call your voice mailbox (network service) when you have saved your voice mailbox number in the phone, press and hold **1**.
- To access video mail numbers, press and hold **2**.
- To connect to a browser service, press and hold **0**.
- To set shortcut functions for the navigation key, see *Navigation key* in "My shortcuts," p. 91.
- To change the profile, briefly press the power key to open the list of profiles. Scroll to the desired profile, and select it.

Power saver

To set the power saving function *On*, see *Power saver* in "Display," p. 89.

Indicators

You have unread messages in the *Inbox* folder.

You have unsent, canceled, or failed messages in the *Outbox* folder.

The phone registered a missed call.

/ Your phone is connected to the instant messaging service, and the availability status is online or offline.

You received one or several instant messages, and you are connected to the Instant messaging service.

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The keypad is locked.

The phone does not ring for an incoming call or text message. See also "Tones," p. 89.

The alarm clock is set to *On*.

The countdown timer is running.

The stopwatch is running in the background.

G / E The phone is registered to a GPRS, EGPRS, or WCDMA network.

G / E A packet data connection is established.

G / E 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.

A Bluetooth connection is active.

2 If you have two phone lines, the second phone line is selected.

All incoming calls are diverted to another number.

The loudspeaker is activated, or the music stand is connected to the phone.

Calls are limited to a closed user group.

The timed profile is selected.

, , , or
A headset, hands-free, loopset, or music stand enhancement is connected to the phone.

or A push to talk connection is active or suspended.

Keypad lock (keyguard)

To prevent the keys from being accidentally pressed, select Menu, and press * within 3.5 seconds to lock the keypad; or select Lock.

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To unlock the keypad select **Unlock**, and press * within 1.5 seconds. If the *Security keyguard* is set *On*, select **Unlock**, press *, and enter the security code.

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

For *Automatic keyguard* and *Security keyguard*, see "Phone," p. 100.

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

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3. Call functions

Make a voice 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), 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 search for a name or phone number that you have saved in *Contacts*, see "Search for a contact," p. 77. Press the call key to call the number.

To access the list of phone numbers you have most recently called or attempted to call, in the standby mode, press the call key once. To call the number, scroll to the number or name you want, and press the call key.

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Speed dialing

Assign a phone number to one of the speed-dialing keys, **3** to **9**. See "Speed dials," p. 80. Call the number in either of the following ways:

- Press the speed-dialing key, then the call key.
- If *Speed dialling* is set to *On*, press and hold a speed-dialing key until the call begins. See "Call," p. 99.

Enhanced voice dialing

To make a phone call, select and hold Names, and say the name of the contact you wish to call. The phone will automatically associate a virtual voice tag with each contact in the phone memory.

Make a voice dialing call

If an application is sending or receiving data using a packet data connection, end the application before you use voice dialing in GSM. In WCDMA it is possible to send voice and data simultaneously.

Voice commands are language-dependent. To set the language, see *Voice playback language* in "Phone," p. 100.

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.

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

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

2. Say the voice command clearly. If the voice recognition is successful, a list with matches is shown. The phone plays the voice command of the match on the top of the list. After about 1.5 seconds, the phone dials the number; or if the result is not the correct one, scroll to another entry, and select to dial the entry.

   Using voice commands to carry out a selected phone function is similar to voice dialing. See *Voice commands* in "My shortcuts," p. 91.

Answer or reject a voice call

To answer a call, press the call key.

To mute the ringing tone before you answer the call, select Silence.

To end the call or reject a call, press the end key.

Call waiting

During a call, to answer the waiting call, press the call key. The first call is put on hold. To end the active call, press the end key.

To activate the *Call waiting* function, see "Call," p. 99.

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Options during a voice call

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

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

Network services options are *Answer*, *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 five persons to take part in a conference call

Private call — to discuss privately in a conference call

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

Make a video call

When you make a video call, you send a real-time video to the recipient of the call. The video image captured by the camera on the back of your phone is shown to the video call recipient. This phone does not have a front camera.

To be able to make a video call, you must have a USIM card and be connected in a WCDMA network. For availability of and subscription to video call services, contact your network operator or service provider. A video call can only be made between two parties. The video call can be made to a compatible phone or an ISDN client. Video calls cannot be made while another voice, video, or data call is active.

1. To start a video call, enter the phone number in the standby mode, or select **Contacts** and a contact.
2. Press and hold the call key, or select **Options** > *Video call*.
   Starting a video call may take a while. *Video call* and an outgoing

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animation is shown. If the call is not successful (for example, video calls are not supported by the network, or the receiving device is not compatible) you are asked if you want to try a normal call or send a message instead.

Tip: To increase or decrease the volume during a call, press the volume keys.

The video call is active when you can see two video images and hear the sound through the loudspeaker. The call recipient may deny the video sending, in which case you may see a still image or a grey background graphic. You will hear the sound.

3. To end the call, press the end key.

Answer or reject a video call

When a video call arrives, *Video Call* is displayed.

1. Press the call key to answer the video call. *Allow video image to be sent to caller?* is displayed.

   If you select **Yes**, the image being captured by the camera in your phone is shown to the caller. If you select **No**, or do nothing, video sending is not activated, and you hear a sound. A graphic is displayed on top of the video, indicating that it is not sent. You can enable or disable video sending at any time during the video call.

2. To end the video call, press the end key.

Even when you deny video sending during a video call, the call is still charged as a video call. Check the pricing with your network operator or service provider.

Options during a video call

Select **Options** during a video call for the following options: *Set contrast*, *Video motion*, *Switch to voice*, *End call*, *Send DTMF,* and *Loudspeaker*.

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4. Write text

To enter text (for example, when writing messages), use traditional or predictive text input. To use 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 keypress.

When you write text, or appears at the top left 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*.

Settings

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

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

To set predictive text input on or revert to traditional text input, select *Prediction* > *On* or *Off*.

To select the prediction type, select *Prediction type* > *Normal* or *Word suggestions*. If you select *Normal*, indicated with , the phone predicts the word on the basis of the characters you enter. If you select *Word suggestions*, indicated with , the phone predicts and completes the word before you enter all the characters.

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

Predictive text input

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

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1. To start writing a word, use the **2** to **9** keys. Press each key only once for one letter. The phone displays * or the letter if it separately has a meaning as a word. 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.

   To insert a special character, press and hold *****, or select Options > *Insert symbol*. Scroll to a character, and select Use.

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

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

   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. Complete the word (traditional text input is used), and select Save.

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 that are available depend on the selected writing language. See "Settings," p. 27.

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 **1** key. For more characters, press *****.

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5. Navigate the menus

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

1. To access the menu, select Menu.

   To change the menu view, select Options > *Main menu view* > *List*, *Grid*, *Grid with labels or Tab.*

   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.
2. Scroll through the menu, and select an option (for example, *Settings*).
3. If the selected menu contains further submenus, select the one that you want (for example, *Call*).
4. If the selected menu contains further submenus, repeat step 3.
5. Select the setting of your choice.
6. To return to the previous menu level, select Back. To exit the menu, select Exit.

The menus, submenus, and setting options are numbered. To access some of them, use their shortcut number.

To access the menu, select Menu. Enter quickly, within 2 seconds, the shortcut number of the menu function you want to access. To access the menu functions in menu level 1, enter **0** and **1**.

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6. Media

Camera

You can take photos or record video clips with the built-in 2 megapixel camera. The camera produces pictures in .jpg format and video clips in .3gp format, and you can digitally zoom up to eight times.

Take a photo

1. To open the camera viewfinder, select **Menu** > *Media* > *Camera*.

   If *Video* is selected as the default mode, select **Options** > *Still image*.

   To zoom in or out, press the volume key up or down, or the left/right navigation key.

   To take up to four photos in quick succession, select **Options** > *Img. sequence on*. The higher the resolution, the fewer photos you can take sequentially.

2. To take a photo, press the camera key, or select **Capture**.

   The phone saves the photo in *My Items > Images* unless you set the phone to use the memory card for saving the photos.

3. To take another photo, press the camera key after the photo saving indicator stops moving. To send the photo as a multimedia message, select **Options** > *Send*.

Tip: To activate the camera, press the camera key. To activate video, press and hold the camera key.

This device supports an image capture resolution of 1600 x 1200 pixels. The image resolution in these materials may appear different.

Record a video clip

Select **Menu** > *Media* > *Camera* > **Options** > *Video* > **Record**. To pause the recording, select **Pause**; to resume the recording, select **Continue**. To

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stop the recording, select **Stop**. The phone saves the recording in *My Items* > *Video clips*. To change the folder for saving the recordings, see "Camera settings," p. 31.

Camera settings

Select **Menu** > *Media* > *Camera* > **Options** > *Settings*. You can define *Image quality*, *Image size*, *Video clip quality*, *Video clip length*, *Camera sounds*, *Default title*, *Image and video storage*, and *Default mode*. In *Image and video storage* you can select the folder or memory card to save your photos and video clips.

This device supports the following video sizes: SubQCIF, QCIF, CIF, and VGA.

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 My Items*, *Bookmarks*, *Go to address*, or *Media downloads*.

Progressive download

Progressive download allows you to watch a video while it is being downloaded and saved in the background. Playback starts immediately when enough data has been buffered.

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

To learn more about accessing videos see "Download content and applications," p. 10.

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 or service provider.

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See "Configuration settings service," p. 10. You can also enter the settings manually. See "Configuration," p. 101.

To activate the settings, do the following:

1. Select Menu > *Media* > *Media player* > *Streaming settings* > *Configuration*
2. Only the configurations that support streaming are shown. Select a service provider, *Default*, or *Personal configuration* 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 format sound files that you have transferred to the phone with the Nokia Audio Manager application. .mp3 and .aac format files are stored in the memory card or in the *My Items* folders. Music files saved in the *Music files* folder and in another location, such as a folder of the memory card, are automatically detected and added to the default track list.

Play the music tracks transferred to the phone

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 ■ .

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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 settings

In the *Music player* menu, the following options 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. 36.

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, to skip to the next track, press the headset key.

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

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

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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.

Select Menu > *Media* > *Radio*.

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

Save radio channels

1. To start the channel search, select and hold ◀◀ or ▶▶. To change the radio frequency in 0.05 MHz steps, briefly press ◀◀ or ▶▶.
2. To save the channel to a memory location, 1 to 9, press and hold the corresponding number key. To save the channel to a 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.

Listen to the radio

Select Menu > *Media* > *Radio*. To scroll to the desired channel, select ▲ or ▼, or press the headset key. To select a radio channel location, briefly press the corresponding number keys. To adjust the volume, press the volume keys.

Select from the following options:

Switch off — to turn off the radio

Save station — to enter a channel name and save the new channel

Visual Radio — to set whether the Visual Radio application is used. Some radio channels may send text or graphical information that you can view using the Visual Radio application.

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Note: This feature may not be available in your product due to your subscription (network service).

Visual Radio settings — to select the options for Visual Radio. To set whether the Visual Radio application starts automatically when you turn on the radio, select *Enable visual service* > *Automatically*.

Stations — to select the list of saved channels. To delete or rename a channel, scroll to the desired channel, and select **Options** > *Delete station* or *Rename*.

Mono output or *Stereo output* — to listen to the radio in monophonic sound or in stereo

Loudspeaker or *Headset* — to listen to the radio using the loudspeaker or headset. Keep the headset connected to the phone. The lead of the headset functions as the radio antenna.

Set frequency — to enter the frequency of the desired radio channel

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 or HSCSD connection is sending or receiving data, it may interfere with the radio.

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Voice recorder

You can record pieces of speech, sound, or an active call, and save them in *My Items* or a memory card. This is useful when recording a name and phone number to write down later.

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

Record sound

1. Select **Menu** > *Media* > *Voice 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 *My Items* > *Recordings*.
4. To listen to the latest recording, select **Options** > *Play last recorded*.
5. To send the last recording using infrared, Bluetooth wireless technology, or a multimedia message, select **Options** > *Send last recorded*.

List of recordings

Select **Menu** > *Media* > *Voice recorder* > **Options** > *Recordings list*. The list of folders in the *My Items* is shown. Open *Recordings* to see the list with recordings. Select **Options** to select options for files in the *My Items*. See "My Items," p. 71.

Define a storage folder

To use another folder than *Recordings* as the default folder in *My Items*, select **Menu** > *Media* > *Voice recorder* > **Options** > *Select memory*. Scroll to a folder, and select **Set**.

Equalizer

You can control the sound quality when using the music player by amplifying or diminishing 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.

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7. 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 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.

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Basic steps to access and use services

1. Save the service settings that are required to access the service that you want to use. See "Set up browsing," p. 37.
2. Make a connection to the service. See "Connect to a service," p. 37.
3. Start browsing the pages of the service. See "Browse pages," p. 38.
4. When you finish browsing, end the connection to the service. To disconnect, see "Options while browsing," p. 39.

Set up browsing

You may receive the configuration settings required for browsing as a configuration message from the network operator or service provider 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. 101.

Connect to a service

First, ensure 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 configuration* for browsing. See "Set up browsing," p. 37.
3. Select *Account* and a browsing service account contained in the active configuration settings.
4. Select *Display terminal window* > *Yes* to perform manual user authentication for intranet connections.

Secondly, make a connection to the service in one of the following ways:

- 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, 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, G 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

To browse through the page, scroll in any direction.

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

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

Options while browsing

Select from the following options:

Home — to return to your start page

Shortcuts — to open a new list of options that are specific to the page. This option is only available if the page contains shortcuts.

Add bookmark — to save the page as a bookmark

Bookmarks — to access the list of bookmarks. See "Bookmarks," p. 39.

Page options — to show the list of options for the active page

History — to get a list showing the last visited URLs

Other options — to show a list of other options

Reload — to reload and update the current page

Quit — to disconnect from a service

The service provider may also offer other options.

Direct calling

The browser supports functions that you can access while browsing. You can make a phone call, send DTMF tones while a voice call is in progress, and save a name and a phone number from a page.

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. Scroll to a bookmark, and select it, 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; to create a new bookmark; or to save the bookmark to a folder.

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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**.

Appearance settings

While browsing, select **Options** > *Other options* > *Appearance 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 > *Extra small*, *Small*, or *Medium* — 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 conn.* > *Yes* — to set the phone to alert when a secure connection changes to an unsecure one during browsing

Alerts > *Alert for unsecure items* > *Yes* — to set the phone to alert when a secure page contains an unsecure item. These alerts do not guarantee a secure connection. For more information, see "Browser security," p. 42.

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

Character encoding > *Unicode (UTF-8) web add.* > *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.

Screen size > *Full* or *Small* — to set the screen layout

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JavaScript > *Enable* — to enable the Java scripts

Security settings

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. 42.

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.

While browsing, to allow the scripts, select **Options** > *Other options* > *Security* > *WMLScript settings*; or in the standby mode, select **Menu** > *Web* > *Settings* > *Security settings* > *WMLScripts in sec. conn.* > *Allow*.

Download settings

To automatically save all downloaded files in *My Items*, 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 (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*.

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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 messages, 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.

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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.

To view or change the security module settings, select **Menu** > *Settings* > *Security* > *Security module settings*.

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*.

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.

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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 is shown, which may include the amount and date.

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.

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8. Applications (Apps.)

Games

The microSD card of your phone may contain games.

Launch a game

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

For options related to a game, see "Application options," p. 45.

Game downloads

Select **Menu** > *Applications* > **Options** > *Downloads* > *Game downloads*. The list of available bookmarks is shown; see "Bookmarks," p. 39.

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** > *Application settings*.

Collection

Your phone software includes some Java applications.

Launch an application

Select **Menu** > *Applications* > *Collection*. Scroll to an application, and select **Open**, or press the call key.

Application options

Delete — to delete the application from the phone

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Details — to give additional information about the application

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

Web page — to provide further information or additional data for the application from an Internet page (network service). It is only shown if an Internet address has been provided with the application.

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

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* > *Application downloads*, and the list of available bookmarks is shown. See "Bookmarks," p. 39.

  For the availability of different services, pricing, and tariffs, contact your service provider.
- Use the game download function. See "Game downloads," p. 45.
- Use the Nokia Application Installer from Nokia 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.

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Presenter

The Presenter application is compatible with Microsoft Office PowerPoint and enables you to control slide presentations, a software DVD, an MP3 player, or other PC applications remotely from your device.

To use applications other than slide presentations and desktop mode, you must create a corresponding custom profile on the PC application.

Before you can use the application you must do the following:

1. Install the Nokia Presenter PC application on your PC. (This component is included in the software package, but is also available for download on the Noka Web site.)
2. Launch and configure the PC component. Make sure that the selected incoming Bluetooth serial port (COM port) corresponds to the one defined in the Bluetooth software settings on the Bluetooth device of your PC. For details, refer to the PC component documentation and "Set up a Bluetooth connection," p. 93.
3. Open the slide presentation, or start the application you want to control remotely from your phone.

Select *Applications* > *Collection* > *Presenter* > **Connect** and the device you want to connect to.

When the Bluetooth Connection Successful dialog appears on your PC screen, you must click on it to confirm the Bluetooth connection.

The list of available application types is displayed. Select **Open** to access the desired application. Select **Options** > *Settings* to set the *Font* size for the speaker notes, and *Timer (in minutes)* to optimize the slide presentation time available. To save the settings, select **Options** > *Back*.

After you have select the slide presentation you browse or skip slides, or jump ahead, by using the 4-way navigation key. To view your speaker notes, select **Notes.** To point things out on the slides, select *Pointer* to activate a small black round marker, that you control with the 4-way navigation key. Select **Options** > *Slide list* to return to the slide list. Select **Options** > *Application list* to return to the list of applications.

To control the mouse pointer (the cursor) remotely from the phone, select the desktop mode. After you open the desktop, the phone

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automatically controls your mouse pointer. To return to the list of applications, select **Options** > *Application list*.

To quit the Presenter, select **Options** > *Exit*.

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9. Push To Talk (PTT)

Note: This feature may not be available in your product due to your subscription (network service).

Push To Talk (PTT) over cellular is a two-way radio service available over a GSM/GPRS cellular network (network service). PTT provides direct voice communication. To connect, press the PTT key.

You can use PTT to have a conversation with one person or with a group of people having compatible devices. When your call is connected, the people you are calling do not have to answer the phone. The participants should confirm the reception of any communication where appropriate, as there is no other confirmation whether the recipients have heard the call.

To check availability and costs, and to subscribe to the service, contact your network operator or service provider. 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. 54.

While you are connected to the PTT service, you can use the other functions of the phone. The PTT service is not connected to traditional voice communication; therefore many of the services available for traditional voice calls (for example, voice mailbox) are not available for PTT communication.

Connect to the PTT service

To connect to the PTT service, select Menu > *Push To Talk* > *Switch PTT on*. indicates the PTT connection. indicates that the service is temporarily unavailable. The phone automatically tries to reconnect to the service until you disconnect from the PTT service. If you have added channels to the phone, you are automatically joined to the active channels, and if you have selected a contact, phonebook group or channel as the default action for the PTT-key, then the name of the selected item is displayed in the standby mode.

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

Make and receive a PTT call

Set the phone to use the loudspeaker or earpiece for PTT communication. When the earpiece is selected, you can use the phone normally, by holding it to your ear.

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

When connected to the PTT service, you can make or receive channel calls, group calls, or one-to-one calls. One-to-one calls are calls you make to only one person.

Press and hold the PTT key the entire time you are talking, and hold the phone in front of you so that you can see the display. When you are finished, release the PTT key. Talking is allowed on a first-come, first-served basis. When someone stops talking, the first person to press the PTT key can talk next.

To check the login status of your contacts, select **Menu** > *Push To Talk* > *Contacts list*. This service depends on your network operator or service provider and is only available for subscribed contacts. , , or indicate that the contact is available, not logged into the PTT service, or unknown. indicates that the contact does not want to be disturbed. You cannot call the contact, but you can send a callback request.

To subscribe a contact, select **Options** > *Subscribe contact*, or if one or more contacts are marked, select *Subscribe marked*.

Make a channel or a group call

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

To make a group call from *Contacts*, the recipients must be connected to the PTT service. Select **Menu** > *Contacts* > *Groups*, scroll to the desired group, and press the PTT key.

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Make a one-to-one call

To start a one-to-one call from the list of contacts to which you added the PTT address, select *Contacts list*. Scroll to a contact, and press the PTT key.

You can also select the contact from *Contacts*.

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

To start a one-to-one call from the list of callback requests you have received, select *Callback inbox*. Scroll to the desired contact, and press the PTT 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 must accept the call to participate.

Select **Menu** > *Push To Talk* > *Contacts list*, and mark the desired contacts. To make the call, press the PTT key. The contacts who accept the call are shown.

Receive a PTT call

A short tone notifies you of an incoming PTT call. Information such as the channel name or the nickname (network service) of the caller is displayed.

If you have set the phone to first notify you of one-to-one calls, accept or reject the call.

If you press the PTT key to try to respond to a call while another member is talking, you hear a tone, and *Queuing* is displayed as long as you press the PTT key. Press and hold the PTT key, and wait for the other person to finish; then you can talk.

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.

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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 *PTT* 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, select **Details**, scroll to the PTT address, and select **Options** > *Send callback*.
- To send a callback request from the channel list in the *Push To Talk* 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 you receive a callback request, *Callback request received* is shown in the standby mode. Select **View**. The list of contacts who have sent you callback requests is shown.

To make a one-to-one call, press the PTT key.

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

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

To view the sender's PTT address, select **View**.

To save a new contact or to add the PTT address to a contact, 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:

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- To add a PTT address to a name in *Contacts*, search for the desired contact, and select **Details** > **Options** > *Add detail* > *Push To Talk address*.
- 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 PTT 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 channels

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

There are three types of PTT channels:

- Provisioned channel — A permanent channel is created by the service provider.
- *Public* — Every channel member can invite other persons.
- *Private* — Only persons who receive an invitation from the channel creator can join in.

Add a channel

To add a public or private channel, select **Menu** > *Push To Talk* > *Add channel*, and edit the settings in the form fields:

Channel status: — Select *Active* or *Inactive*.

Nickname in channel: — Enter your nickname for the channel.

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

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

To add a channel by entering the channel address manually, select **Menu** > *Push To Talk* > *Add channel* > **Options** > *Edit address manually*. Enter the channel address provided by your service provider.

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Receive an invitation

When you receive an invitation to a group, *Channel invitation received:* is displayed.

1. To view the contact who sent the invitation and the channel address if the group is not a private channel, select **View**.
2. To add the channel to your phone, select **Save**.
3. To set the status for the channel, select *Active* or *Inactive*.

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

■ PTT settings

There are two kinds of PTT settings: settings for connecting to the service and settings for use.

You may receive the settings for connecting to the service from your network operator or service provider. See "Configuration settings service," p. 10. You can enter the settings manually. See "Configuration," p. 101.

To select the settings for connecting to the service, select **Menu** > *Push To Talk* > *Configuration sett.* and from the following options:

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

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

You can also select from the following options: *Push To Talk user name*, *Default nickname*, *Push To Talk password*, *Domain*, and *Server address*.

To edit the PTT settings for use, select **Menu** > *Push To Talk* > *PTT settings*, and from the following options:

1 to 1 calls > *On* — to set the phone to allow the reception of 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*.

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PTT key default function is used to select the default action of the PTT-key. It can be set to opening the *Contacts list* or *Channel list*. It can also be set to directly create a PTT call from any state (unless any other contact, group or channel is highlighted) to a contact, channel or group.

Show my login status > *Yes* — to enable 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 on the phone

PTT when abroad — to switch the PTT 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 calls

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10. Messaging

You can read, write, send, and save text, multimedia, e-mail, audio, and flash messages. All messages are organized into folders.

Text messages (SMS)

With the short message service (SMS) you can send and receive text messages (network service).

Before you can send any text or SMS e-mail message, you must save your message center number. See "Message settings," p. 67.

To check SMS e-mail service availability and to subscribe to the service, contact your service provider. To save an e-mail address in *Contacts*, see "Save numbers and text items," p. 77.

Your device supports the sending of text messages beyond the character limit for a single message. Longer messages is 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.

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Write and send SMS messages

1. Select **Menu** > *Messaging* > *Create message* > *Text message*.
2. Enter the recipient's phone number in the *To:* field. To retrieve a phone number from *Contacts*, select **Add** > *Contact*. To send the message to multiple recipients, add the desired contacts one by one. Scroll right to add new contacts manually in the *To:* field. To send the message to persons in a group, select *Contact group* and the desired group. To retrieve the contacts to which you recently sent messages, select **Add** > *Recently used*.

3. Scroll down, and write your message in the *Message:* field. See "Write text," p. 27.

   To insert a template into the message, select **Options** > *Use template*.

4. To send the message, select **Send**; or press the call key. See "Send a message," p. 59.

Read and reply to an SMS message

1 message received or the number of new messages with *messages received* are shown when you have received a message.

1. 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 you want to read. is shown if you have unread messages in *Inbox*.

2. To view the list of available options while reading a message, select **Options**. You can, for example, select to copy text from the beginning of a message to your phone calendar as a reminder note.

3. To reply to a message, select **Reply** > *Text message*, *Multimedia*, *Flash message*, or *Audio message*.

   To send a text message to an e-mail address, enter the e-mail address in the *To:* field.

   Scroll down, and write your message in the *Message:* field. See "Write text," p. 27.

   If you want to change the message type for your reply message, select **Options** > *Change message type*.

4. To send the message, select **Send**; or press the call key.

SIM messages

SIM messages are text messages that are saved to your SIM card. You can copy or move those messages to the phone memory, but not vice versa. Received messages are saved to the phone memory.

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To read SIM messages, select **Menu** > *Messaging* > **Options** > *SIM messages*.

Multimedia messages

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

To check availability and to subscribe to the multimedia messaging network service, contact your network operator or service provider. See "Multimedia message," p. 68.

A multimedia message can contain text, sound, pictures, video clips, a business card, and a calendar note. 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.

Multimedia messaging supports the following formats:

- Picture: JPEG, GIF, animated GIF and WBMP
- Sound: AMR audio
- Video clip: .3gp format with H.263 or MPEG video (QCIF resolution), WB or AMR audio
- Other: vCard (Business card) and vCalendar (Calendar note)

The phone may not support all variations of the file formats.

You can receive multimedia messages during a call, another Java application, or an active browsing session over WCDMA data.

Write and send a multimedia message

The wireless network may limit the size of MMS messages. If the inserted picture exceeds this limit, the device may make it smaller so that it can be sent by MMS.

1. Select **Menu** > *Messaging* > *Create message* > *Multimedia*.
2. Enter your message.

   Your phone supports multimedia messages that contain several pages (slides). A message can contain a calendar note and a business

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card as attachments. A slide can contain text, one image, and one sound clip; or text and a video clip. To insert a slide in the message, select **New**; or select **Options** > *Insert* > *Slide*.

To insert a file in the message, select **Insert** or **Options** > *Insert*.

You can fetch images and video clips from the *My Items*, or to take them directly from the viewfinder, select **Options** > *Insert* > *New Image* or *New video clip*.

3. To view the message before sending it, select **Options** > *Preview*.
4. To send the message, select **Send**; or press the call key. See "Send a message," p. 59.
5. Enter the recipient's phone number in the *To:* field. To retrieve a phone number from *Contacts*, select **Add** > *Contact*. To send the message to multiple recipients, add the desired contacts one by one. To send the message to persons in a group, select *Contact group* and the desired group. To retrieve the contacts to which you recently sent messages, select **Add** > *Recently used*.

Send a message

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

When you finish writing your message, to send the message, select **Send**, or press the call key. The phone saves the message in the *Outbox* folder, and sending starts. If you select *Save sent messages* > *Yes*, the sent message is saved in the *Sent items* folder. See "General," p. 67.

Note: When the phone sends 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.

It takes more time to send a multimedia message than to send a text message. While the message is being sent, you can use other functions on the phone. If an interruption occurs while the message is being sent,

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the phone tries to resend the message a few times. If these attempts fail, the message remains in the *Outbox* folder. You can try to resend it later.

Cancel message sending

When the phone is saving a message in the *Outbox* folder, *Sending message* or *Sending messages* is displayed. To cancel the text message sending, select **Cancel**.

To cancel the sending of the multimedia messages in the *Outbox* folder, scroll to the desired message, and select **Options** > *Cancel sending*.

Read and reply to a multimedia message

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

Multimedia message received or the number of new messages with *messages received* is shown when you receive a new multimedia message.

1. To read the message, select **Show**. To view it later, select **Exit**.

   To read the message later, select **Menu** > *Messaging* > *Inbox*. Scroll to the message that you want to view, and select it. is shown if you have unread messages in *Inbox*.

2. To view the whole message if the received message contains a presentation, select **Play**.

   To view the files in the presentation or the attachments, select **Options** > *Objects* or *Attachments*.

3. To reply to the message, select **Options** > *Reply* > *Text message*, *Multimedia*, *Flash message*, or *Audio message*. Write the reply message.

   If you want to change the message type for your reply message, select **Options** > *Change message type*. The new message type may not support all the content that you have added.

4. To send the message, select **Send**; or press the call key. See "Send a message," p. 59.

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Memory full

When you are receiving a message, and the memory for the messages is full, *Memory full, not possible to receive message(s)* 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*.

To free phone memory, delete photos, ringing tones, or other data in the phone memory.

Folders

The phone saves received messages in the *Inbox* folder.

Messages that have not yet been sent are saved in the *Outbox* folder.

To set the phone to save the sent messages in the *Sent items* folder, see *Save sent messages* in "General," p. 67.

To save the message that you are writing and want to send later in the *Drafts* folder, select **Menu** > *Messaging* > *Drafts*.

You can move your messages to the *Saved items* folder. To organize your *Saved items* subfolders, select **Menu** > *Messaging* > *Saved items* > *Saved messages* or a folder that you add. To add a new folder for your messages, select **Options** > *Add folder*. To delete or rename a folder, scroll to the desired folder, and select **Options** > *Delete folder* or *Rename folder*.

Your phone has templates. To create a new template, save or copy a message as a template. To access the template list, select **Menu** > *Messaging* > *Saved items* > *Templates*.

Flash messages

Flash messages are text messages that are instantly displayed upon reception. Flash messages are not automatically saved.

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Write a flash message

Select **Menu** > *Messaging* > *Create message* > *Flash message*. Enter the recipient's phone number in the *To:* field. Write your message in the *Message:* field. The maximum length of a flash message is 70 characters. To send the message, select **Send**.

Receive a flash message

A received flash message is indicated with *Message:* and a few words from the beginning of the message. To read the message, select **Read**. To extract phone numbers, e-mail addresses, and Web site addresses from the current message, select **Options** > *Use detail*.

Audio messages

Note: This feature may not be available in your product due to your subscription (network service).

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 you can use audio messages.

Create an audio message

1. Select **Menu** > *Messaging* > *Create message* > *Audio message*. The recorder opens. To use the recorder, see "Voice recorder," p. 35.
2. To view the available options, select **Options**.
3. Enter the recipient's phone number in the *To:* field. To retrieve a phone number from *Contacts*, select **Add** > *Contact*. To send the message to multiple recipients, add the desired contacts one by one. To send the message to persons in a group, select *Contact group* and the desired group. To retrieve the contacts to which you recently sent messages, select **Add** > *Recently used*.
4. To send the message, select **Send**.

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Receive an audio message

When your phone receives audio messages, the number of messages and the text *messages received* is shown. To open the message, select **Play**; or if more than one message is received, select **Show** > **Play**. To listen to the message later, select **Exit**. Select **Options** to see the available options.

E-mail application

The e-mail application uses a packet data connection (network service) to allow you to access your 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 e-mail function. To use the e-mail function on your phone, you need a compatible e-mail system.

You can write, send, and read e-mail with your phone. You can also save and delete the e-mail on a compatible PC. Your phone supports POP3 and IMAP4 e-mail servers.

Before you can send and retrieve any e-mail messages, you must do the following:

- Obtain a new e-mail account or use your current account. To check the availability of your e-mail account, contact your e-mail service provider.
- Check your e-mail settings with your network operator or 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. 101.

  To activate the e-mail settings, select **Menu** > *Messaging* > *Message settings* > *E-mail messages*. See "E-mail," p. 69.

This application does not support keypad tones.

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Settings Wizard

The settings wizard will start automatically if no e-mail settings are defined in the phone. To enter the settings manually, select **Menu** > *Messaging* > *E-mail* > **Options** > *Manage accounts* > **Options** > *New*.

The *Manage accounts* options allow you to add, delete, and change the e-mail settings. Make sure that you have defined the correct preferred access point for your operator. See "Configuration," p. 101.
The e-mail application requires an Internet access point without a proxy. WAP access points normally include a proxy and do not work with the e-mail application.

Write and send an e-mail

You can write your e-mail message before connecting to the e-mail service; or connect to the service first, then write and send your e-mail.

1. Select **Menu** > *Messaging* > *E-mail* > *Create e-mail*.
2. If more than one e-mail account is defined, select the account from which you want to send the e-mail.
3. Enter the recipient's e-mail address.
4. Write a subject for the e-mail.
5. Write the e-mail message. See "Write text," p. 27.

   To attach a file to the e-mail, select **Options** > *Attach* and a file from *My Items*.
6. To send the e-mail message immediately, select **Send** > *Send now*.

   To save the e-mail in the *Outbox* folder to be sent later, select **Send** > *Send later*.

   To edit or continue writing your e-mail later, select **Options** > *Save draft*. The e-mail is saved in *Outboxes* > *Drafts*.

   To send the e-mail later, select **Menu** > *Messaging* > *E-mail* > **Options** > *Send now* or *Send and check e-mail*.

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Download e-mail

1. To download e-mail messages that have been sent to your e-mail account, select **Menu** > *Messaging* > *E-mail* > *Check for new e-mail*.

   If more than one e-mail account is defined, select the account from which you want to download the e-mail.

   The e-mail application only downloads e-mail headers at first.
2. Select **Back**.
3. Select *Inboxes,* the account name, and the new message, and select **Retrieve** to download the complete e-mail message.

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

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.

1. Select **Menu** > *Messaging* > *E-mail* > *Inboxes*, the account name, and the desired message.
2. While reading the message, select **Options** to view the available options.
3. To reply to an e-mail, select **Reply** > *Original text* or *Empty screen*. To reply to many, select **Options** > *Reply to all*. Confirm or edit the e-mail address and subject, then write your reply.
4. To send the message, select **Send** > *Send now*.

E-mail folders

Your phone saves e-mail that you have downloaded from your e-mail account in the *Inboxes* folder. The *Inboxes* folder contains the following folders: "Account name" for incoming e-mail, *Archive* for archiving e-mail, *Custom 1*—*Custom 3* for sorting e-mail, *Junk* where all spam e-mail is stored, *Drafts* for saving unfinished e-mail, *Outbox* for saving e-mail that has not been sent, and *Sent items* for saving e-mail that has been sent.

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To manage the folders and their e-mail content, select **Options** to view the available options of each folder.

Spam filter

The e-mail application allows you to activate a built-in spam filter. To activate and define this filter, select **Options** > *Spam filter* > *Settings* in the main e-mail idle screen. The spam filter allows the user to put specific senders on a black or white list. Black list sender messages are filtered to the *Junk* folder. Unknown and White list sender messages are downloaded into the account inbox. To blacklist a sender, select the e-mail message in the *Inboxes* folder and **Options** > *Blacklist sender*.

Voice messages

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

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

If supported by the network, indicates new voice messages. To call your voice mailbox number, select **Listen**.

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), such as activation commands for network services, to your service provider.

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Delete messages

To delete messages one by one, select **Menu** > *Messaging* > *Delete messages* > *By message* and the folder from which you want to delete messages. Scroll to the desired message, and select **Delete**. To mark more than one message, select **Options** > **Mark**. Mark all the messages you want to delete, and select **Options** > *Delete marked*.

To delete all messages from a folder, select **Menu** > *Messaging* > *Delete messages* > *By folder* and the folder to delete. Depending on the folder, the phone asks if you want to delete the messages.

To delete all messages from all folders, select **Menu** > *Messaging* > *Delete messages* > *All messages* > **Yes**.

Message settings

General

General settings are common for text and multimedia messages.

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

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

Overwriting in sent items — to select whether overwriting is allowed when messages are sent and the memory is full

Font size — to select the font size used in messages

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

Text message and SMS e-mail

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

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

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

Message centres > *Add centre* — to set the phone number and name of the message center that is required for sending text messages. You receive this number from your service provider. If you select *SIM message centre*, you can view the SIM message center information.

Message centre in use — to select the message center in use

E-mail message centres > *Add centre* — to set the phone numbers and name of the e-mail center for sending SMS e-mail. If you select *SIM e-mail centre*, you can view the SIM e-mail center information.

E-mail centre in use — to select the SMS e-mail message center in use

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 or WCDMA as the preferred SMS bearer

Character support > *Full* — to select all characters in the messages to be sent as viewed

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

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Multimedia message

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

You may receive the configuration settings for multimedia messaging as a configuration message. See "Configuration settings service," p. 10. You can also enter the settings manually. See "Configuration," p. 101.

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

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

Image size (multimedia) — to define the default image size used in multimedia messages

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

Allow multimedia recept. — to receive or block the multimedia message, select *Yes* or *No*. If you select *In home network*, you cannot receive multimedia messages when you are outside your home network. The default setting of the multimedia message service is generally *In home network*.

Incoming multim. msgs. — to allow the reception of multimedia messages automatically, manually after being prompted, or to reject the reception. This setting is not shown if *Allow multimedia recept.* is set to *No*.

Allow adverts — to receive or reject advertisements. This setting is not shown if *Allow multimedia recept.* is set to *No*, or *Incoming multim. msgs.* is set to *Reject*.

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

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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. 101.

To activate the settings for the e-mail application, select **Menu** > *Messaging* > *Message settings* > *E-mail messages* and from the following options:

Configuration — Select the set that you want to activate.

Account — Select an account provided by the service provider.

My name — Enter your name or nickname.

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

Include signature — You can 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 — Select *Yes* to perform manual user authentication for intranet connections.

Incoming server type — Select *POP3* or *IMAP4*, depending on the type of e-mail system that you are using. If both types are supported, select *IMAP4*.

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

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11. My Items

In this menu you can manage graphics, images, recordings, 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.

The files stored in *My Items* use a memory that mainly consists of the microSD card of your phone. You can store images, themes, graphics, ringing tones, video clips, and sound clips in *My Items*.

To manage the files and folders, do the following:

1. Select **Menu** > *My Items*. A list of folders is shown. If a memory card is inserted in the phone, the folder *Memory card*, *(unformatted)*, or the name of the memory card is shown.
2. Scroll to the desired folder. To view a list of files in the folder, select **Open**. For the available options, select **Options**.
3. Scroll to the file you want to view, and select **Open**. For the available options, select **Options**.

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

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Format memory card

To format a new memory card, select **Menu** > *My Items*. Scroll to the memory card folder, and select **Options** > *Format memory card*.

12. Organizer

Alarm clock

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

To set the alarm, select *Alarm time*, enter the alarm time, and select OK. 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* and the time.

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. If you let the phone continue to sound the alarm for a minute or select Snooze, the alarm stops for the time you set in *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.

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Calendar

Select Menu > *Organizer* > *Calendar*.

The current day is indicated by a frame in the month view. If there are any notes set for the day, the day is in bold type, and the beginning of the note is shown below the calendar. 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 calendar day view can make a note; delete, edit, move, or repeat a note; copy a note to another day; send a note with Bluetooth technology; or send a note to the calendar of another compatible phone as a text message or multimedia message. In *Settings* you can set the date, time, time zone, date or time format, date separator, default view, or the first day of the week. In *Auto-delete notes* you can set the phone to delete old notes automatically after a specified time.

Make a calendar note

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

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 10 minutes, select Snooze.

To stop the alarm without viewing the note, select Exit.

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To-do list

To save a note for a task that you must do, select Menu > *Organizer* > *To-do list*.

To make a note if no note is added, select Add; otherwise, select Options > *Add*. Write the note, select Save and the priority, and set the deadline and alarm 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 write and send notes, select Menu > *Organizer* > *Notes*.

To make a note if no note is added, select Add; otherwise, select Options > *Make a note*. Write the note, and select Save.

Other options 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 through infrared, Bluetooth wireless technology, text message, or a multimedia message. If the note is too long to be sent 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 > *Organizer* > *Calculator*. When 0 is displayed, enter the first number in the calculation. Press # 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**. To start a new calculation, first select and hold **Clear**.

Convert currency

Select **Menu** > *Organizer* > *Calculator*. To save the exchange rate, select **Options** > *Exchange rate*. Select either of the displayed options. Enter the exchange rate, press **#** 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 cleared.

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Countdown timer

Select **Menu** > *Organizer* > *Countdown 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 30 seconds. To stop the alarm and delete the note text, select **Exit**. To restart the countdown timer, select **Restart**.

Stopwatch

You can measure time, take intermediate times, or take lap times using 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** > *Organizer* > *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

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13. 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 additional details, such as various phone numbers and text items. You can also save an image or a video clip for a limited number of contacts. You can also use the video clip saved with a contact as a ringing tone for the contact.

The SIM card memory can save names with one phone number attached to them. The contacts 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 characters of the name.

Save names and phone numbers

Names and numbers are saved in the used memory. To save a name and phone number, select Menu > *Contacts* > *Names* > Options > *Add new contact*. Enter the last name, first name, and the phone number.

Save numbers and text items

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, and it is indicated with a frame around the number type indicator (for example,). When you select a name from contacts (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 *Phone* or *Phone and SIM*.
2. Search for the contact to which you want to add a new number or text item, and select Details > Options > *Add detail*.

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3. To add a number, select *Number* and a number type.

   To add another detail, select a text type, an image or a video clip from *My Items*, or a new image.

   To search for an ID from the server of your service provider if you have connected to the presence service, select *User ID* > *Search*. 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*. Enter the ID, and select **OK** to save it.

   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**.

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

Search for the contact you want to edit, and select **Details**. To edit a name, number, text item, or to change the image, select **Options** > *Edit*. You cannot edit an ID when it is on the *IM contacts* list.

Delete contacts

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 memory* 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,

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and select **Options** > *Delete* > *Delete number*, *Delete detail*, or *Delete image*. Deleting an image from contacts does not delete it from *My Items*.

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 business card* > *Via multimedia*, *Via text message*, *Via infrared*, or *Via Bluetooth*.

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

Settings

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

Memory in use — to select the SIM card or phone memory for your contacts. Select *Phone and SIM* to recall names and numbers from both memories. In that case, when you save names and numbers, they are saved in the phone memory.

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

Name display — to select whether the contact's first or last name is displayed first

Font size — to set the font size for the list of contacts

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.

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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** and the contact 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. 99.

To make a call using the speed-dialing keys, see "Speed dialing," p. 23.

Service and my numbers

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

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. This is only shown if the numbers are included on your SIM card.

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14. Log

Note: This feature may not be available in your product due to your subscription (network service).

To view the information on your calls, select **Menu** > *Log* > *Missed calls*, *Received calls*, or *Dialled numbers*. To view your recent missed and received calls and the dialed numbers chronologically, select *Call log*. To view the contacts to whom you most recently sent messages, select *Message recipients*.

To view the approximate information on your recent communications, select **Menu** > *Log* > *Call duration*, *Packet data counter*, or *Packet data timer*.

To view how many text and multimedia messages you have sent and received, select **Menu** > *Log* > *Message log*.

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

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

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15. Instant messages (IM)

Note: This feature may not be available in your product due to your subscription (network service).

Instant messaging (IM) (network service) is a way to send short, simple text messages to online users, delivered over TCP/IP protocols.

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 or service provider, from whom you also receive your unique ID, password, and settings.

To set the required settings for the instant messaging service, see *Connection settings* in "Access the instant messaging menu," p. 82. The icons and texts on the display may vary, depending on the instant messaging service.

While you are connected to the instant messaging service, you can use the other functions of the phone, and the instant messaging conversation remains active in the background. 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.

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Access the instant messaging menu

To access the *Instant messages* menu while still offline, select **Menu** > *Instant messages*. If more than one set of connection settings for 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. To set the phone to automatically connect to the instant messaging service when you switch on the phone, select **Menu** > *Instant messages*, connect to the instant messaging service, and select *My settings* > *Automatic login* > *On phone start-up*.

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

Connection settings — to edit the settings needed for messaging and presence connection

Connect to instant messaging

To connect to the instant messaging service, access the *Instant messages* menu, select the desired instant messaging service if needed, and select *Login*. When the phone has successfully connected, *Logged in* is displayed.

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

Start an instant messaging conversation

Open the *Instant messages* menu, and connect to the instant messaging service. You can start a conversation in different ways:

Select *Conversations*. The list of new and read messaging sessions or invitations to instant messaging during the active conversation is displayed. Scroll to a message or an invitation, and select **Open**.

indicates new and read instant messages.

indicates new and read group messages.

indicates invitations.

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

Select *IM contacts*. The contacts that you added to the list are displayed. Scroll to the contact with whom you would like to start instant messaging, and select **Chat**, or if is shown next to a contact, select **Open**.

indicates an online contact and an offline contact in the contact memory of the phone.

indicates a blocked contact. See "Block and unblock messages," p. 86.

indicates that you have received a new message from a contact.

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You can add contacts to the list. See "Contacts for instant messaging," p. 86.

Select *Groups* > *Public groups* (dimmed if groups are not supported by the network). The list of bookmarks to public groups provided by the network operator or service provider is displayed. To start a conversation, scroll to a group, and select **Join**. Enter the screen name that you want to use as a nickname in the conversation. When you have successfully joined the group conversation, you can start a group conversation. You can also create a private group. See "Groups," p. 86.

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.

Instant messaging 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 an invitation, and select **Open**.

To join the private group conversation, select **Accept**. Enter the screen name that you want to use as a nickname in the conversation.

To reject or delete the invitation, select **Options** > *Reject* or *Delete*. You can write an explanation for the rejection.

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**.

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If more than one message is received, the number of messages, followed by *new instant messages*, is displayed. Select **Read**, scroll to a 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. If the sender is in the phone memory and the phone recognizes it, the name of the person is displayed. To save a new contact that is not in the phone memory, select **Options** > *Save contact*.

Join an instant messaging conversation

To join or start a conversation, select **Write** or start writing.

Tip: If you receive a new message during a conversation from a person who is not taking part in the current conversation, is displayed, and the phone sounds an alert tone.

Write your message. To send it, select **Send**, or press the call key. The message stays on the display, and the reply message appears below your message.

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 when you are online, select *Availability* > *Available for all*.

   To allow only the contacts on your instant messaging contact list to see when you are online, select *Availability* > *Available 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 that you are not visible to others.

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Contacts for instant messaging

To add contacts to the instant messaging contacts list, do the following:

1. Connect to the instant messaging service, and select *IM contacts*.
2. Select **Options** > *Add contact*, or if you have no contacts added, select **Add**. Select *Enter ID manually*, *Search from server*, *Copy from server*, or *By mobile number*. When the contact is successfully added, the phone confirms it.
3. Scroll to a contact, and to start a conversation, select **Chat**.

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 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**.

You can also unblock messages from the contact list.

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 into does not support group services, all group-related menus are dimmed.

Public groups

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

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

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16. Settings

Profiles

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

Select **Menu** > *Settings* > *Profiles* and the desired profile. Select from the following options:

Activate — to activate the selected profile

Personalise — to personalize the profile. Select the setting you want to change, and make the changes.

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

Flight mode

You can deactivate all radio frequence functionality and still have access to games, calendar and phonebook. Use flight mode in radio sensitive environments—on board airplanes or in hospitals. When the flight mode is active, the flight icon is visible next to the battery charge level.

Select *Settings* > *Profiles* > *Flight* and from the following options: *Activate*- *Personalise* .

To deactivate the flight mode, you scroll to and select any other profile. Every time you try to make a call, you are asked if you want to *Exit flight profile?* click *Yes* to deactivate Flight mode.

In the flight mode you can make an emergency call. Enter the emergency number, press the call key, and select *Yes* when asked *Exit flight profile?* The phone attempts to make an emergency call.

When the emergency call ends, the phone automatically enters the general profile mode.

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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 *My Items* opens. Open the *Themes* folder, and select a theme.

Theme downloads — to open a list of links to download more themes

Tones

You can change the settings of the selected active profile.

Select Menu > *Settings* > *Tones* > *Incoming call alert*, *Ringing tone*, *Ringing volume*, *Vibrating alert*, *PTT settings*, *Message alert tone*, *Instant msg. alert tone*, *Keypad tones*, or *Warning tones*. You can find the same settings in the *Profiles* menu.

To set the phone to ring only upon 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.

Display

With display settings you can personalize your phone display view.

Standby mode

Enable or disable active standby from idle

To enable the active standby mode, select Menu > *Settings* > *Display* > *Standby mode settings* > *Active standby* > *My active standby*.

To disable the active standby mode, select Menu > *Settings* > *Display* > *Standby mode settings* > *Active standby* > *Off.*

Standby settings

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

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Active standby > *My active standby* — to display the active standby. Select **Options** and from the following options:

- *Personalise* — to change the content on the display
- *Organise* — to reorganize the content on the display
- *Enabling active standby* — to change the key for accessing the navigation mode. The same setting is also in the *My shortcuts* menu. See "Enable active standby," p. 92.

Wallpaper — to set your phone to display an image or a slide as wallpaper when the phone is in the standby mode. Select *Wallpapers* > *Image* or *Slide set*. Select an image or a slide from *My Items*, and **Options** > *Set as wallpaper*. To download more graphics, select *Graphic downloads*.

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

Navigation key icons — to set the scroll key icons that are shown in the standby mode

Operator logo — to set your phone to display or hide the operator logo

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

Screen saver

To select a screen saver from *My Items*, select **Menu** > *Settings* > *Display* > *Screen saver* > *Screen savers* > *Image*, *Slide set*, *Video clip*, or *Open camera*. To download more screen savers, select *Graphic downloads*. To select the time after which the screen saver is activated, select *Time-out*. To activate the screen saver, select *On*.

Power saver

To save some battery power, select **Menu** > *Settings* > *Display* > *Power saver*. A digital clock is displayed when no function of the phone is used for a certain time.

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Sleep mode

To save most battery power, select Menu > *Settings* > *Display* > *Sleep mode*. The display turns completely black when no function of the phone is used for a certain time.

Font size

To set the font size for reading and writing messages and viewing contacts and Web pages, select Menu > *Settings* > *Display* > *Font size*.

Time and date

To change the time, time zone, and date settings, select Menu > *Settings* > *Time and date* > *Clock*, *Date*, or *Auto-update of date/time* (network service).

When traveling to a different time zone, select Menu > *Settings* > *Time and date* > *Clock* > *Time zone* and the time zone of your location in terms of the time difference with respect to Greenwich Mean Time (GMT) or Universal Time Coordinated (UTC). The time and date are set according to the time zone and enable your phone to display the correct sending time of received text or multimedia messages. For example, GMT -5 denotes the time zone for New York (USA), 5 hours west of Greenwich/London (UK).

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My shortcuts

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

Left selection key

To select a function from the list for the left selection key, select Menu > *Settings* > *My shortcuts* > *Left selection key*. See also "Standby mode," p. 18.

To activate a function in the standby mode if the left selection key is Go to, select Go to and the desired function on your personal shortcut list. Select Options and from the following options:

Select options — to add a function to the shortcut list, or to remove one. Scroll to the function, and select **Mark** or **Unmark**.

Organise — to rearrange the functions on your personal shortcut list. Scroll to the function you want to move, and select **Move**. Scroll to where you want to move the function, and select **OK**.

Right selection key

To select a function from the list for the right selection key, select **Menu** > *Settings* > *My shortcuts* > *Right selection key*. See also "Standby mode," p. 18.

Navigation key

To select shortcut functions for the scroll keys, select **Menu** > *Settings* > *My shortcuts* > *Navigation key*. Scroll to the desired key and select **Change** and a function from the list. To remove a shortcut function from the key, select *(empty)*. To reassign a function for the key, select **Assign**. See "Standby mode shortcuts," p. 20.

Enable active standby

To select the key to access the active standby navigation mode, select **Menu** > *Settings* > *My shortcuts* > *Enabling active standby* > *Navigation key up*, *Navigation key down*, or *Navigation key up/down*.

Voice commands

You can call contacts and carry out phone functions by saying voice commands. Voice commands are language-dependent. To set the language, see *Voice playback language* in "Phone," p. 100.

The phone voice commands are active by default. Select **Menu** > *Settings* > *My shortcuts* > *Voice commands* and a folder. Scroll to a function. indicates that the voice tag is activated. . To play the activated voice command, select **Play**. To use voice commands, see "Enhanced voice dialing," p. 23.

To manage the voice commands, scroll to a phone function, and select from the following options:

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Edit or *Remove* — to change or deactivate the voice command of the selected function. When you edit the voice tag text, the phone associates it to a new virtual voice tag.

Add all or *Remove all* — to activate or deactivate voice commands to all functions in the voice commands list. *Add all* or *Remove all* is not shown if all voice commands are active or inactive.

Connectivity

You can connect the phone to a compatible device using an infrared, Bluetooth wireless technology, or USB data cable (CA-53 or DKU-2) connection. You can also define the settings for packet data dial-up connections.

Bluetooth wireless technology

This device is compliant with Bluetooth Specification 2.0 supporting the following profiles: hands-free, headset, object push profile, file transfer profile, dial-up networking profile, SIM access profile, and serial port 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 reduce the battery life.

Bluetooth technology allows you to connect the phone to a compatible Bluetooth device within 10 meters (32 feet). 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* and from the following options:

Bluetooth > *On* or *Off* — to activate or deactivate the Bluetooth function. indicates an active Bluetooth connection. When activating Bluetooth technology for the first time, you are asked to give a name for the phone. Please note that this name will be viewed by other people - use a unique name that is easy for others to identify.

Search for audio enhanc. — 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 must only 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 connection is currently active, select *Active devices*. To view a list of Bluetooth devices that are currently paired with the phone, select *Paired devices*.

Select **Options** to access available options depending on the status of the device and the Bluetooth connection. Select *Connect* > *Assign short name* or *Auto-conn. without conf.*.

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*.

Operating the phone in hidden mode is a safer way to avoid malicious software.

Do not accept Bluetooth connectivity from sources you do not trust.

As another alternative, - switch off the Bluetooth functionality. This will not affect other functionalities of the phone.

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Infrared

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

Do not point the IR (infrared) beam at anyone's eye or allow it to interfere with other IR devices. This device is a Class 1 laser product.

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, 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 canceled 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

WCDMA and general packet radio service (GPRS) are network services that allow mobile phones to send and receive data over an Internet protocol protocol (IP)-based network. WCDMA and GPRS are data bearers that enable 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 or service provider.

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The applications that may use WCDMA or (E)GPRS are MMS, video streaming, 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 connection

Select **Menu** > *Settings* > *Connectivity* > *Packet data* > *Packet data connection*, and from the following options:

Always online to set the phone to automatically register to a packet data network when you switch on the phone. G or E indicates that the packet data service is available.

If you receive a call or a text message, or make a call during a packet data connection, G or E indicates that the packet data connection is suspended (on hold).

When needed to register and establish a packet data connection when an application using packet data needs it, and to close the connection when you end the application.

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 packet data connectivity from the PC.

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

You can also set the packet data service settings (access point name) on your PC using the Nokia Modem Options software. See "Nokia PC Suite,"

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p. 106. If you have set the settings both on your PC and on your phone, the PC settings are used.

Data transfer

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 synchronisation* and *PC synchronisation* 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 transfer contact* > *Phone synchronisation* 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 synchronisation* or *PC synchronisation*.

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 synchronisation* or *PC synchronisation*. According to the settings, the selected data is copied or synchronized. The other device also must be activated for receiving data.

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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:

Send data — to select a contact, other than *Server synchronisation* and *PC synchronisation*, 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. 101.

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 synchronisation*. Depending on the settings, select *Initialising synchronisation* or *Initialising copy*.

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

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USB data cable

You can use the USB data cable to transfer data between the memory card inserted in 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 memory card for data transfer or picture printing, connect the USB 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

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

Call

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

Call divert — to divert your incoming calls (network service). You may not be able to divert your calls if some call barring functions are active. See *Call barring service* in "Security," p. 102.

Anykey answer > *On* — to set the phone to answer an incoming call by pressing any key except the power and end keys.

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

Video to voice automatic redial — to select whether the phone automatically makes a voice call to the number to which a video call failed.

Speed dialling > *On* — to dial the names and phone numbers assigned to the speed-dialing keys **3** to **9**, press and hold the corresponding number key

Call waiting > *Activate* — to have the network notify you of an incoming call while you have a call in progress (network service). See "Call waiting," p. 24.

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

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Send my caller ID > *Yes* — to show your phone number to the person you are calling (network service). To use the setting agreed upon with your service provider, select *Set by network*.

Phone

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

Language settings — to set the display language of your phone, select *Phone language*. If you select *Automatic*, the phone selects the language according to the information on the SIM card.

To select the USIM card language, select *SIM language*.

To set a language for the voice playback, select *Voice playback language*. See "Make a voice dialing call," p. 24 and *Voice commands* in "My shortcuts," p. 91.

Memory Status — to see how much of the phone's memory is reserved and how much is free.

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 set the time.

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.

Welcome note — to write the note you would like to be shown briefly when the phone is switched on.

Network mode — to select dual mode (UMTS and GSM), UMTS, or GSM. You cannot access this option during an active call.

Operator selection > *Automatic* — to set the phone to automatically 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 serv. actions — See "SIM Toolkit (STK)," p. 105.

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

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

Flight query —to select whether *Activate flight profile?* appears every time the phone is switched on if the flight mode was set before switching off the device. See "Flight mode," p. 88.

Enhancements

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

Select **Menu** > *Settings* > *Enhancements*. Depending on the enhancement, you can select some of 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.

Configuration

You can configure your phone with settings that are required for certain services to function correctly. The services are multimedia messaging, instant messaging, synchronization, e-mail application, streaming, push to talk, IM and Web. Your service provider may also send you these settings. See "Configuration settings service," p. 10.

For information on availability and the appropriate configuration settings, contact your network operator or service provider.

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

Default config. 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 *Delete*.

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Activ. default in all apps. — 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 serv. support — to download the configuration settings from your service provider if this is supported by the service provider

Personal config. settings — to add new personal accounts for various services, and to activate or delete them. To add a new personal account if you have not added any, select **Add**; 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 and *UPIN 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.

PIN2 code request — to select whether the PIN2 code is required when using a phone feature that is protected by the PIN2 code. 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 create, edit, and activate a list of phone numbers or prefixes. When the list is activated, you can only call or send messages to the numbers on the list. If the SIM card does not support this option, *Fixed dialling* is hidden.

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

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

Access codes — to change the security code, PIN code, PIN2 code, or barring password

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

Authority certificates or *User certificates* — to view the list of the authority or user certificates downloaded into your phone. See "Certificates," p. 43.

Security module settings — to view *Security module details*, activate *Module PIN request*, or change the module PIN and signing PIN. See also "Access codes," p. 9.

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Digital rights management

Digital rights management (DRM) is copyright protection, designed to prevent modification and to limit distribution of protected files. When you download protected files, such as sound, video, themes, or ringing tones to your phone, the files are free, but locked. You pay for the key to activate the file and the activation key is automatically sent to your phone when you download the file.

To view the permissions for a protected file, scroll to the file, and select **Options** > *Activation keys.* For example, you can see how many times you can view a video or how many days you have left for listening to a song.

To extend the permissions for a file, select **Options** and the corresponding option for the file type, such as *Activate theme*. You can send certain types of protected files to your friends, and they can buy their own activation keys.

This phone supports OMA DRM 1.0.

Restore factory settings

To reset some of the menu settings to their original values, select Menu > *Settings* > *Restore factory sett.*. Enter the security code.

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17. SIM Toolkit (STK)

Your SIM card may provide additional services. You can access this menu only if it is supported by your SIM card. The name and contents of the menu depend on the available services.

For availability, rates, and information on using SIM ToolKit services, contact your SIM card vendor, for example, network operator, service provider, 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 Toolkit services, select Menu > *Settings* > *Phone* > *Confirm SIM serv. actions* > *Yes*.

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

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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 IR, Bluetooth wireless technology, or USB data cable connection. You can use your phone with a variety of PC connectivity and data communications applications.

Nokia PC Suite

With Nokia PC Suite you can synchronize contacts, calendar, notes, and to-do notes between your phone and the compatible PC or a remote Internet server (network service). You may find more information and PC Suite on the Nokia Web site at www.nokia.com/support.

EGPRS, HSCSD, CSD, and WCDMA

With your phone you can use the enhanced GPRS (EGPRS), general packet radio service (GPRS), circuit switched data (*GSM data*) services, high speed circuit switched data (HSCSD), and WCDMA packet and circuit switched data services.

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

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 settings," p. 96.

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.

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

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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.

If a replacement battery is being used for the first time or if the battery has not been used for a prolonged period, it may be necessary to connect the charger and then disconnect and reconnect it to start the charging.

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.

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.

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

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

Leaving the battery in hot or cold places, such as in a closed car in summer or winter conditions, will reduce the capacity and lifetime of the battery. Always try to keep the battery between 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.

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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 on the 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.

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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.

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20. Technical Information

Weight	100 grams (3.5 ounces) incl. BP-6M battery
Battery	1100 mAh Li-Ion Battery
Networks	Wireless networks GSM 900, 1800, 1900 and WCDMA: UTRA FDD Operating Band II
Size	Volume: 4.6 cubic inches (76 ccm) Length: 4.3 in (109 mm) Width: 1.8 in (46,5 mm) Thickness: 0.7 in (17,5 mm)
Frequency range (Rx)	GSM 900: 925 - 960 MHz GSM1800: 1805 - 1880 MHz GSM1900: 1930 - 1990 MHz WCDMA: 1930 - 1990 MHz
Frequency range (Tx)	GSM 900: 880 - 915 MHz GSM 1800: 1710 - 1785 MHz GSM1900: 1850 - 1910 MHz WCDMA: 1850 - 1910 MHz
Tx output power	GSM: 2W (max) WCDMA: 250 mW (max)
Battery voltage	3.7 V (nominal)
Number of channels	GSM 900: 174 GSM 1800: 374 GSM1900: 299 WCDMA: 288
Memory size	NOR memory: 32 Mbyte SDRAM memory: 128 Mbit
Operating temperature	59 °F to 77 °F (15 °C to 25 °C)

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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.

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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 2.2 centimeters (7/8 inches) 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.

To transmit data files or messages, this device requires a 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. Do not place credit cards or other magnetic storage media near the device, because information stored on them may be erased.

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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

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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. 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 MOBILE DEVICE MEETS GUIDELINES FOR EXPOSURE TO RADIO WAVES.

Your mobile device is a radio transmitter and receiver. It is designed not to exceed the limits for exposure to radio waves recommended by international guidelines. These guidelines were developed by the independent scientific organization ICNIRP and include safety margins designed to assure the protection of all persons, regardless of age and health.

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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 ICNIRP 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 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 under the ICNIRP guidelines for use of the device at the ear is 0.87 W/kg.

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

Your mobile device is also designed to meet the requirements for exposure to radio waves established by the Federal Communications Commission (USA) and Industry Canada. These requirements set a SAR limit of 1.6 W/kg averaged over 1 gram of tissue. The highest SAR value reported under this standard during product certification for use at the ear is 0.63 W/kg and when properly worn on the body is 0.34 W/kg. Information about this device model can be found at http://www.fcc.gov/oet/fccid by searching the equipment authorization system using FCC ID: QTKRM-123.

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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.

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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

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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

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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.

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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

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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

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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,

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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

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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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