Nokia 7280 User Guide – FCC Draft

DECLARATION OF CONFORMITY We, NOKIA CORPORATION declare under our sole responsibility that the products RM-14 is in conformity with the provisions of the following Council Directive:1999/5/EC.A copy of the Declaration of Conformity can be found at http://www.nokia.com/phones/ declaration_of_conformity/.

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EXPORT CONTROLS

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

FCC/INDUSTRY CANADA NOTICE

Your device may cause TV or radio interference (for example, when using a telephone in close proximity to receiving equipment). The FCC or Industry Canada can require you to stop using your telephone if such interference cannot be eliminated. If you require assistance, contact your local service facility. This device complies with part 15 of the FCC rules. Operation is subject to the condition that this device does not cause harmful interference.

Contents

For your safety

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

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

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

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

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

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

SWITCH OFF WHEN REFUELING
Don't use the phone at a refuelling point. Don't use near fuel or
chemicals.

SWITCH OFF NEAR BLASTING
Follow any restrictions. Don't use the phone where blasting is in
progress.

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

QUALIFIED SERVICE
Only qualified personnel may install or repair this product.

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

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

BACKUP 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 that 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 standby mode. Press and hold the **Middle selection** key, and enter the emergency number. To enter the emergency number, scroll to the numeric character you want in the character bar, and press *Select*. Repeat this for each numeric character of the emergency number. Press the **Call** key. Give your location. Do not end the call until given permission to do so.

1. Welcome

Congratulations on your purchase of the Nokia 7280 mobile phone. This is a truly unique, urban communication accessory that is also a mobile phone. Some its features include a camera, alarm clock, radio, calendar, and to-do notes.

■ About your device

The wireless device described in this guide is approved for use on the GSM 900, 1800, and 1900 networks.

Contact your service provider for more information about networks.

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

Warning: To use any features in this device, other than the alarm clock, the phone must be switched on. Do not switch the device on when wireless phone 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 in your device menu. Contact your service provider for more information.

■ Shared memory

The following features in this device may share memory: contacts, text and multimedia messages, e-mails, voice tags and SMS distribution lists, calendar, and to-do notes. Use of one or more of these features may reduce the memory available for the remaining features sharing memory. For example, saving many calendar notes may use all of the available memory. Your phone 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 images, gallery tones, text messages, and applications may have a certain memory specially allotted to them in addition to the memory shared with other features.

■ Configuration settings service

To use some of the network services, such as mobile Internet services, multimedia messaging service (MMS), or synchronization, your phone needs the correct configuration settings. You may receive the settings directly as a configuration message and you need to save the settings on your phone. Your service provider may provide a PIN that is needed to save the settings. For more information on the availability of the settings, contact your service provider.

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

- To view the received settings, select *Show*.

- To save the received settings, select *Save*. When *Enter settings' PIN:* is displayed, enter the PIN code for the settings and select *OK*. You can choose to set these settings as the default.

- To discard the received settings, select *Discard*.

- To view and edit the settings, see Configuration settings on page 60.

■ Updates

From time to time, Nokia may update this guide to reflect changes. The latest version may be available at **www.nokiausa.com**.Also, an interactive tutorial may be available at **www.nokiahowto.com**.
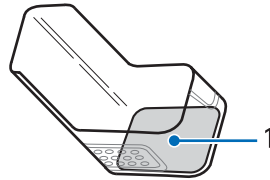
■ Register your phone

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

■ Get help

Find your phone label

If you need to call the Nokia Customer Care
Center or your service provider, you will
need to provide specific information about
your phone. This information is located on
the phone label (1), which is found after
you remove the quick slide on your phone.
See Remove and replace the quick slide on
page 20 for more information.

To help Nokia promptly answer your questions, please have the following
information available before contacting the Nokia Customer Care Center:

• Your phone model number (7280)

• Type number (RM-14)

• International mobile equipment identity (IMEI)

• Your zip code

• The phone or enhancement in question

Contact Nokia

Nokia Customer Care Center, USA
Nokia Inc.
7725 Woodland Center Boulevard, Suite #150
Tampa, Florida 33614
Tel: 1-888-NOKIA-2U (1-888-665-4228)
Fax: 1-813-249-9619
TTY/TDD users: 1-800-24-NOKIA (1-800-246-6542)

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

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Accessibility solutions

Nokia is committed to making mobile phones easy to use for all individuals, including those with disabilities. For more information, visit the web site at **www.nokiaaccessibility.com**.

E-newsletters

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

Copyright protection

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

2. Your phone

■ Nokia 7280 phone at a glance
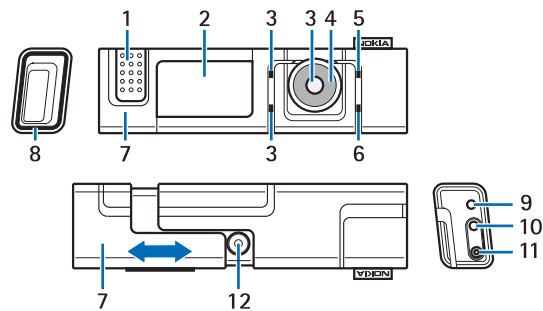
- **Earpiece (1)**

- **Display and mirror (2)**

- **Upper selection**, **Lower selection**, and **Middle selection** keys **(3)**

  The functions of these keys depend on the guiding text shown on the display beside the keys. See Standby mode on page 12.

- **Nokia Navi™ spinner** key **(4)**

  The spinner is used to scroll through the character bar (when entering text and numbers), through different lists, and to view messages. See Spinner on page 12.

- **End** key **(5)** ends an active call and allows you to exit from any function. Press and hold the **End** key to switch the phone on and off.

- **Call** key **(6)** dials a phone number and answers a call. In the standby mode, it shows the list of the most recently called numbers.

- **Quick slide (7)** provides a variety of functions. Sliding out the quick slide accepts an incoming call, switches on the display light, and opens the camera lens. Sliding in the quick slide ends a call.

- **Pulsating light indicator (8)**

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- **Microphone (9)**

- **Accessory port (10)** is where to connect the power cord of a Nokia enhancement.

- **Charger port (11)** is where to connect the power cord of the phone charger.

- **Camera lens (12)**

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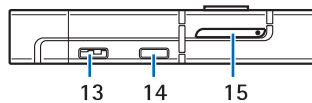
- **Loudspeaker (13)** allows you to speak and listen to the phone from a short distance without having to hold the phone to your ear.

- **IR port (14)** enables your phone and another compatible device to use an IR beam to communicate with each other.

- **SIM card holder (15)**

■ Spinner

You can use the spinner to enter characters, scroll through different lists, and view messages.

To use the spinner, rotate it clockwise or counter-clockwise.

The **Middle selection** key is located in the center of the spinner.
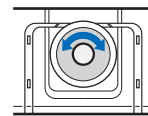
In the standby mode, you can use the spinner as follows:

- Press and hold the **Middle selection** key to enter a phone number.

- Rotate the spinner to highlight a digit of the phone number in the character bar, and press *Select*. Repeat this for each digit of the phone number.

- To dial the phone number, press the Call key or select *Options* > *Call*.

- To save the phone number with a name, select *Options* > *Save*, the letters of the name one by one from the character bar, and *Options* > *Accept*.

■ Standby mode

When you turn on your phone, the first screen that appears is the start screen, which indicates your phone is in the standby mode. When your phone is in the

standby mode, the selection keys access specific functions, and the indicators appear on the start screen. Indicators show the status of the phone.
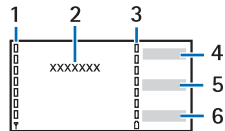
- The signal strength indicator (1) shows the strength of the signal to your phone. The higher the bar, the stronger the signal.

- The name of the wireless service provider (2) displays in the middle of the start screen.

- The battery strength indicator (3) shows how much power is left in your phone battery. The higher the bar, the more power in the battery.

- The **Upper selection** key (4) in the standby mode is *Go to*. Your most frequently used functions can be quickly accessed from the *Go to* menu.

  Select *Go to* > *Volume* to set the volume of your phone.

  Select *Go to* > *Options* and one of the following options:

  - *Select options* to view the list of available functions that you can add.

    Scroll to the function you want and select *Mark* to add it to the shortcut list or *Unmark* to remove it from the list.

  - *Organize* to rearrange the functions on your personal shortcut list. Scroll to the function you want, and select *Move*, then scroll to where you want to move the function.

- The **Middle selection** key (5) in the standby mode is *Menu*.

- The **Lower selection** key (6) in the standby mode may be *Names* to access the *Contacts* menu, an operator-specific key to access an operator's home page, or a specific function that you have selected in the **Lower selection** key menu.

■ Indicators and icons

Your phone has two types of identifiers: indicators and icons.

Indicators

See Standby mode on page 12 for information on indicators.

Icons

Icons are graphical representations of a specific item or situation. The following list describes each icon.

✉ You have received one or more text or multimedia messages.

🔒0 The phone keypad is locked.

🚫 The phone does not ring for an incoming call or text message when *Incoming call alert* is set to *Off* and *Message alert tone* is set to *Off*.

📢 The alarm clock is set.

G Shown on the top left of the display when the GPRS connection mode *Always online* is selected and the GPRS service is available.

G Shown on the top left of the display when the GPRS connection is established.

📵 Shown on the top right of the display when the GPRS connection is suspended (on hold); for example, if there is an incoming or outgoing call during the GPRS connection.

((•)) Indicates an active Bluetooth wireless connection.

▶··· Indicates an infrared connection.

↵ Incoming voice calls are forwarded to another number.

1 Line 1 is selected for outgoing calls.

2 Line 2 is selected for outgoing calls.

🔊 The loudspeaker is activated.

⊤ Calls are limited to a closed user group.

🕐 The timed option for a profile is selected.

🎧 The headset is attached to your phone.

🚗 The car kit is attached to your phone.

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The loopset is attached to your phone.

Wallpaper

You can set the phone to display a background picture (wallpaper) when it is in the standby mode.

Power saving option

To save power, the display and the key illumination switch off after a certain period of time. The pulsating light indicator shows that the phone is switched on. Press the **End** key, or use the quick slide to switch the light on. Deactivating the pulsating light indicator (*Light effects*) saves power. See Profiles on page 46 for more information.

The menu

Your phone offers many functions that are grouped into menus and submenus. Most of the menu functions are provided with a brief help text. To view the help text, scroll to the menu function you want and wait for about 15 seconds.

Access a menu function

1. In the standby mode, select *Menu*, rotate the spinner to the main menu function you want, and press *Select*.

2. If the menu contains submenus, rotate the spinner to the submenu function you want, and press *Select*.

3. Select *Back* to return to the previous menu level, or select *Exit*, or press the **End** key to exit the main menu.

3. Getting started

■ Install the SIM card

Keep all SIM cards and the SIM release tool 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. 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. To release the SIM card holder, insert the SIM release tool (1) provided with your phone or a paper clip into the release hole as shown. Pull the SIM card holder out of the phone.

2. Insert the SIM card into the SIM card holder, making sure the gold colored contact area is face down. Insert the SIM card holder into the phone and slide it until it snaps into place.
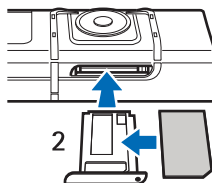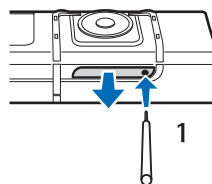
■ Charge the battery

The Nokia 7280 mobile phone has an internal, nonremovable, rechargeable battery. Do not attempt to remove the battery from the phone, as you may damage the device. If the battery needs replacing, take it to your nearest authorized service facility.

Check the model number of any charger before use with this device. This device is intended for use with the following chargers: AC-1 or ACP-12 chargers.

1. Connect the charger to a standard wall outlet.

2. Insert the charger plug into the round jack in the bottom of the phone. *Charging* is displayed briefly if the phone is switched on. If the battery is completely empty, it may take a few minutes before the charging indicator appears on the display or before any calls can be made.

3. Disconnect the charger from the phone when the battery is fully charged.
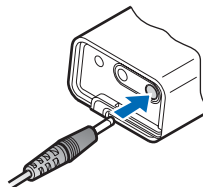
You can use the phone while the charger is connected. The charging time depends on the charger used.

■ Turn the phone on or off

Press and hold the **End** key until the phone switches on or off.

If the phone displays *Insert SIM card* (even though the SIM card is properly inserted) or *SIM card not supported*, contact your network operator or service provider. Your phone does not support 5-V SIM cards and the card may need to be changed.
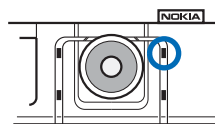
If the phone requires a PIN code or the security code, the character bar appears. Scroll to the desired digit in the character bar, and press *Select*. Repeat this for each digit of the code. If you enter an incorrect digit, select *Clear* > *Options* > *Accept* to delete it.

■ The headset

Your phone may come with a headset you can use while talking on your phone. The headset provides convenient hands-free use of the phone.

1. Insert the headset plug into the headset jack in the phone.

2. Put the round ear bud into one ear.

With the headset connected, you can make and answer calls as usual.The microphone for the headset hangs at the side of your head. Although the microphone may seem far from your mouth, you can speak at a normal volume. Refer to the packaging materials of your headset for further information regarding its operation.
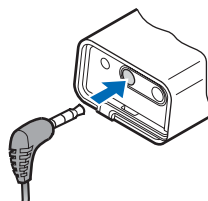
■ Antenna

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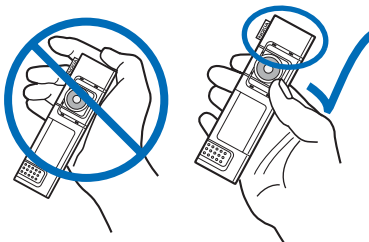
Note: As with any other radio transmitting device, do not touch the antenna unnecessarily when the device is switched on. Contact with the antenna affects call quality and may cause the phone to operate at a higher power level than otherwise needed. Avoiding contact with the antenna area when operating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

■ Attach the wrist strap

1. Thread the wrist strap as shown in the illustration.

2. Tighten the strap.
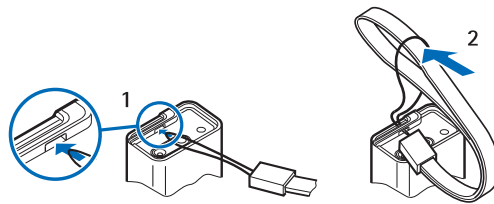
■ The loopset

The LPS-3 loopset gives people with T-coil equipped hearing aids the ability to make and receive calls without noise interference. Refer to the booklet that comes with the LPS-3 for complete instructions and safety information.

1. Plug the loopset plug into the jack in the bottom of the phone, as shown in the illustration.

2. Select *Menu* > *Settings* > *Enhancement settings* > *Loopset*.

3. Select *Use loopset* > *Yes*.
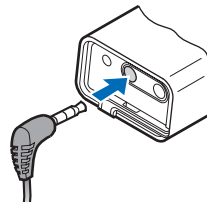
■ Remove and replace the quick slide

The quick slide has to be removed to see the type label of the phone or to clean the phone.

1. To remove the quick slide, use a fingernail as a lever to lift the edge of the slide as shown until the slide is released.

2. Slide it as shown to remove the quick slide. Avoid touching the camera lens.

3. To replace the quick slide, fit the phone and the slide together as shown.

4. Push the slide onto the phone until it snaps into place.
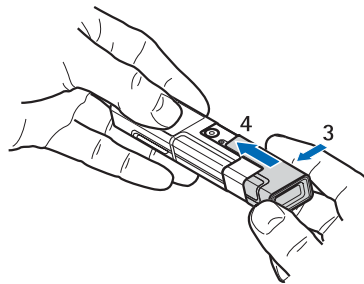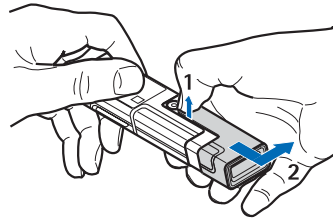
4. Phone security

Your phone is equipped with different security features that allow you to do the following:

- Avoid making accidental calls
- Prevent unauthorized use of your phone

■ Lock the keypad (keyguard)

The keyguard disables your keypad to prevent accidental key presses.

Select *Menu* or *Unlock* and the **Call** key within 1.5 seconds to lock or unlock the keypad. If the *Security keyguard* is set to *On*, select *Unlock*, and enter the security code.

An incoming call can be operated normally. When you end or reject the call, the keypad will automatically be locked.

Note: When the keyguard is on, calls may be possible to the emergency number programmed into your phone.

■ Access codes

- **Security code (5 to 10 digits):** The security code helps to protect your phone against unauthorized use. The preset code is 12345.

  To change the code and set the phone to request it, see Security settings on page 61.

- **PIN code (4 to 8 digits):** The PIN (personal identification number) code helps to protect the SIM card against unauthorized use. It may be supplied with the SIM card. If you activate the *PIN code request* function in the *Security settings* menu, the code is requested each time the phone is switched on.

  If you enter an incorrect PIN code three times in succession, the SIM card is blocked. You must enter the PUK code to unblock the SIM card and set a new PIN code

- **PIN2 code (4 to 8 digits):** This code may be supplied with the SIM card and is required to access some functions, such as call counters.

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- **PUK and PUK2 codes (8 digits):** The PUK (personal unblocking key) code is required to change a blocked PIN code. The PUK2 code is required to change a blocked PIN2 code. For more information, contact your service provider.

- **Call restriction password (4 digits):** This code is required when using the *Call restrictions* function in the *Security settings* menu. You can obtain the password from your service provider.

- **Module PIN and signing PIN:** The module PIN is required to access the information in the security module.

  The signing PIN is required for the digital signature.

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5. Call functions

■ Make a call

1. Press and hold the **Middle selection** key in the standby mode, and enter the phone number, including the area code. To enter the phone number, scroll to the numeric character you want in the character bar, and press *Select*. Repeat this for each numeric character of the phone number. If you enter an incorrect character, select *Clear* to delete it.

   For international calls, enter the **+** character for the international access code, enter the country code, the area code without the leading 0, if necessary, and the phone number.

2. Press the **Call** key to call the number.

3. Press the **End** key to end the call or to cancel the call attempt.

Use Contacts

1. Select *Menu* > *Contacts* > *Find*.

2. Press the **Call** key to start the call.

Recently dialed numbers

1. In the standby mode, press the **Call** key once to access the list of up to 20 numbers that you last called or attempted to call.

2. Scroll to the number or name that you want, and press the **Call** key to start the call.

Call voice mail

In the standby mode, press and hold the **Middle selection** key, select **1**, and press the **Call** key.

Make another call during a call (network service)

1. During a call, select *Options* > *New call*.

2. Enter the phone number, or select *Options* > *Find* > *Call*.

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The first call is put on hold.

3. To switch between the two calls, press the **Call** key.

■ Answer or reject a call

- Use the quick slide or press the **Call** key to answer the call. To mute the ringing tone, select *Silence*.

- To reject the call, press the **End** key. If *Forward if busy* is activated in your voice mailbox, the call is forwarded to your voice mail. If not, the call is rejected.

■ Options during a call

Select *Options* or press the **Upper selection** key during a call for some of the following options: *Volume*, *Mute* or *Unmute*, *Contacts*, *Record*, *Answer*, *Decline*, *Hold* or *Unhold*, *New call*, *End call*, *End all calls*.

You might not have all of these options. Contact your service provider for more details.

- *Lock keypad* is used to activate the keypad lock.

- *Touch tones* is used to send tone sequences, for example, passwords or bank account numbers (network service).

- *Swap* is used to switch between the active call and the call on hold.

- *Transfer calls* is used to connect an incoming call or a call on hold with an active call and to disconnect yourself from both calls.

- *Conference* is used to call and invite another party into the call (network service).

- *Private call* is used to have a private conversation with one participant in a conference call (network service).

- *Auto-volume on* or *Auto-volume off* is used to control the earpiece volume level according to the environment noise level.

- *Audio enhancing* is used to modify the voice so that it can be heard easily in noisy environment.

- *Number entry* is used to enter a number during a call.

- *Loudspeaker* is used to activate the loudspeaker during a call to have the hands-free function of your phone.

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

  To adjust the volume during a call, select *Options* > *Volume*. Rotate the spinner to the volume level that you want for the call and select *OK*.

  To activate or deactivate the loudspeaker, select *Loudspeaker* or *Handset*. The loudspeaker is automatically deactivated when you end the call or connect the hands-free unit or headset to the phone.

  If you have connected a compatible hands-free unit or the headset to the phone, *Handset* in the options list is replaced with *Handsfree* or *Headset*.

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6. Messages

You can use mobile messages to keep in touch with friends, family, and business associates by using the short message service (SMS). Not all messaging features are available in all wireless networks. Contact your service provider for availability and subscription information.

When sending messages, your device may display *Message sent*. 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.

■ Text messages (network service)

Your device supports the sending of text messages beyond the normal 160-character limit. If your message exceeds 160 characters, it will be sent as a series of two or more messages. In the navigation bar, you can see the message length indicator counting backwards from 160. For example, 10 (2) means that you can still add 10 characters for the text to be sent as two messages.

Using special (Unicode) characters, such as ë, â, á, ì, takes up more space. If there are special characters in your message, the indicator may not show the message length correctly. Before the message is sent, the device tells you if the message exceeds the maximum length allowed for one message. You can cancel sending by selecting *Cancel* or you can save the message in the inbox.

You can add pictures and templates to your text messages. Text templates are indicated by ▤ and picture templates are indicated by ▥. Each picture message is made up of several text messages. Therefore, sending one picture message may cost more than sending one text message. Contact your service provider for pricing information.

Before you can send a message, you need to save some message settings. See Settings for text and SMS e-mail messages on page 107.

Text entry

You can enter letters, numbers, and special characters into your phone while writing a text message from the character bar at the bottom of a text entry

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screen. Scroll to the character you want by rotating the spinner, and press *Select*. To speed up the selection, you can use a method called predictive text, which uses a built-in phone dictionary. The characters in predictive text depend on the previously selected characters. If you do not use predictive text, the characters are shown in alphabetical order.

Activate predictive text

At any text entry screen, select *Options* > *Prediction on*. When predictive text is on, is shown at the top of the screen and the characters appear blue.

Use the character bar

- Select and rotate the spinner to move the cursor in the text. Select *Continue* to continue entering text.

- Select the space in the character bar to enter a space.

- Select to enter uppercase text.

- Select to enter lowercase text.

- Select to enter accented characters.

- Select to enter numbers.

- Select to enter special characters.

Some of these functions can also be used by selecting *Options* and the option you want. If you need to accept text, select *Options* > *Accept*.

Other tips for text entry

- To delete a character to the left of the cursor, select *Clear*. Select and hold *Clear* to delete the characters more quickly.

- To delete all the characters at once when writing a message, select *Options* > *Clear text*.

- To allow the characters to be accessed in a continuous loop, select *Options* > *Looping on*.

- To change the input language to another language, select *Options* > *Writing language* and the language you want.

Write and send

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

2. If you want to insert a template to the text message, select *Use template* and the template you want to insert.

3. If you want to attach a picture to the text message, select *Options* > *Insert picture*, the picture you want to send, and *View* > *Insert*.

4. Enter the text of your message, and select *Options* > *Send*.

5. Enter the recipient's phone number, and select *Options* > *Accept*.

Options

You have various options of sending a message, other than the *Send* option discussed in Write and send on page 27. To access one of these options, select *Options* > *Sending options* and one of the following:

Send to many—Send the message to several recipients. When you have sent the message to all recipients, select *Done*.

Send as e-mail—Send an e-mail message by SMS (network service). See E-mail on page 28 for more information.

Sending profile—Send the message by using a predefined message profile.

E-mail

Before you can send any e-mails by SMS, you need to save the settings for e-mail sending. See Message settings on page 35.

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

2. Enter the text of your message, and select *Options* > *Sending options* > *Send as e-mail*

3. Enter the recipient's e-mail address, and select *Options* > *Accept*.

Read and reply

When you receive a text message or an e-mail, the ✉ icon and *N messages received* (where N is the number of new messages) appear in the display. Received messages are automatically stored in shared memory. The blinking ✉ indicates that the message memory is full. Before you can receive new messages, delete old messages.

1. Select *Show* to view the new message or *Exit* to view it later.

    If more than one message has been received, select the one that you want to read. An unread text message or e-mail is indicated by ✉ in front of it.

2. While reading or viewing the message, select *Options*.

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You can select an option to delete, forward, or edit the message as a text message or an e-mail, or move and rename the message you are reading. With *Copy to calendar*, you can copy the text from the beginning of the message to your phone calendar as a reminder note. Select *Message details* to view the sender's name and phone number, the message center used, and reception date and time. Select *Use detail* to extract phone numbers, e-mail addresses, and web site addresses from the current message. When reading a picture message, select *Save picture* to save the picture in the *Templates* folder.

3. Select *Reply* > *Text message*, compose your reply, and select *Options* > *Send*.

4. Enter the recipient's phone number and select *Options* > *Accept*.

Inbox and sent items folders

The phone saves incoming text and multimedia messages in the *Inbox* folder and sent text and multimedia messages in the *Sent items* folder. Text messages are indicated by the ✉ icon. Text messages that you wish to send later can be saved in the *Saved text msgs.*, *My folders*, or *Templates* folder.

Saved items folder and My folders

To organize your messages, you can move some of them to the *Saved items* folder, or add new folders for your messages.

While reading a message, select *Options* > *Move*, scroll to the folder where you want to move the message, and press *Select*.

Add a folder

1. Select *Menu* >*Messages* > *Saved items* > *Text messages* > *My folders*.

2. If you have not created any folders, select *Add*; or if you have created folders, select *Add folder*.

3. Enter a name for the new folder, and select *Options* > *Accept*.

Delete a folder

1. Select *Menu* >*Messages* > *Saved items* > *Text messages* > *My folders* and the folder you want to delete.

2. Select *Options* > *Delete folder* > *Yes*.

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Rename a folder

1. Select *Menu* > *Messages* > *Saved items* > *Text messages* > *My folders* and the folder you want to rename.

2. Select *Options* > *Rename folder*, and enter a new name for the folder.

3. Select *Options* > *Accept*.

■ Multimedia messages (network service)

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

A multimedia message can contain text, sound, and a picture or a video clip. The phone supports multimedia messages that are up to 100 KB. If the maximum size is exceeded, the phone may not be able to receive the message. In some networks, you may receive a text message that includes an Internet address where you can view the multimedia message.

MMS supports the following formats:

- Picture: JPEG, GIF, WBMP, BMP and PNG

- Sound: scalable polyphonic MIDI (SP-MIDI), AMR audio and monophonic ringing tones

- Video clips in 3gp format with SubQCIF and QCIF resolution and AMR audio

The phone does not necessarily support all variations of the aforementioned file formats. If a received message contains any unsupported elements, they may be replaced with the file name and *Object format not supported*. If the message contains a picture in compatible format, the phone may scale it down to fit the display area.

You are not able to receive any multimedia messages if you have a call in progress. Because delivery of multimedia messages can fail for a variety of reasons, do not rely solely upon them for essential communications.

Write and send

For availability and subscription to MMS, contact your service provider. To set the settings for multimedia messaging, see Multimedia on page 35.

Options in the multimedia text editor are *Send to*, *Insert*, *Delete*, *Clear text*, *Preview*, *Slide list*, *Slide timing*, *Place text first* or *Place text last*, *Save message*, *More options*, *Exit editor*, *Writing language*, *Prediction on*, *Looping on*, and *Move cursor*.

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

2. Enter the text of your message.

3. To insert a file in the message, select *Options* > *Insert* and the type of file you want.

4. Open the folder you want and the file you want, and select *Options* > *Insert*.

   An attached file is indicated with the file name in the message. You cannot insert a theme in a new message.

5. To move the text component to the top or bottom of the message, select *Options* > *Place text first* or *Place text last*.

6. To insert a name from *Contacts*, select *Options* > *More options* > *Insert contact* and the contact you want.

7. To view the message before sending it, select *Options* > *More options* > *Preview*.

8. To send the message, select *Options* > *Send to* > *Phone number*, *E-mail address*, or *Many*.

9. Enter the recipient's phone number or e-mail address, and select *Options* > *Accept*.

It takes more time to send a multimedia message than to send a text message. While the multimedia message is being sent, the animated ⏎ icon is displayed, and you can use other functions on the phone. If there is an interruption while the message is being sent, the phone tries to resend it a few times. If this fails, the message will remain in the *Outbox* folder, and you can try to resend it later.

Insert slide

Your phone supports the sending and receiving of multimedia messages that contain several pages (slides).

1. From the multimedia message entry screen, select *Options* > *Insert* > *Slide*.

   Each slide can contain text, one image, and one sound clip.

2. If the message contains several slides, to open the one you want, select *Previous slide*, *Next slide*, or *Slide list*.

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3. To change the time a slide is displayed in a slide presentation, select the slide and *Options* > *Slide timing*.

4. Enter the time you want, and select *Options* > *Accept*.

5. To send the message, select *Options* > *Send to* > *Phone number*, *E-mail address*, or *Many*.

6. Enter the recipient's phone number or e-mail address, and select *Options* > *Accept*.

Read and reply

When a multimedia message is being received, the animated ⊜ icon is displayed. Once the message has been fully downloaded, the ⊜ icon and *Multimedia message received* appear in the display. Received messages are automatically stored in shared memory. The blinking ⊜ icon indicates that the message memory is full. Before you can receive new messages, delete old messages. The appearance of a multimedia message may vary depending on the receiving device.

1. Select *Show* to view the new message or *Exit* to view it later.

   An unread text message or e-mail is indicated by ✉.

2. While viewing the message, select *Options* and one of the following:

   Play presentation—View the presentation attached in the message.

   View text—View only the text in the message.

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

   Save image, *Save sound clip* or *Save video clip*—Save the corresponding file in the *Gallery*.

   Details—View the details of the attached file.

   Delete message—Delete a saved message.

   Reply or *Reply to all*—Reply to the message. To send the reply, select *Options* > *Send*.

   Forward to number, *Forward to e-mail* or *Forward to many*—Forward the message.

   Edit—Edit a message. You can only edit messages you have created.

   Message details—View the subject, size, and the type of message.

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Folders

The phone saves the received multimedia messages in the *Inbox* folder. Multimedia messages to be sent are moved to the *Outbox* folder. The multimedia messages you want to send later can be saved in the *Saved items* folder. The sent multimedia messages are saved in the *Sent items* folder, if *Save sent messages* is set to *Yes*. See Multimedia on page 35 for information about multimedia settings.

■ Voice messages (network service)

If you subscribe to voice mail, your service provider will furnish you with a voice mailbox number. You need to save this number to your phone to use voice mail. When you receive a voice message, your phone lets you know by beeping, displaying a message, or both. If you receive more than one message, your phone shows the number of messages received.

Voice mailbox number

If your service provider has not already set up the voice mailbox number, follow these steps to set up the voice mailbox number.

1. Select *Menu* > *Messages* > *Voice messages* > *Voice mailbox number*.

2. Enter your voice mailbox number, and select *Options* > *Accept*.

Two phone lines

If your SIM card supports it, your phone can have two phone lines. Your service provider can tell you if your SIM card allows the use of this feature and can give you access to two phone lines.If you decide to use two phone lines, you can select one of the two lines for outgoing calls, but you can still answer calls on both lines. If you use two phone lines, you will be given a voice mailbox number for each line. You need to save the voice mailbox number for each phone line separately.To do this, first select the outgoing line and save its voice mailbox number. Then, select the other line and save its number.

Voice mail indicator

The method of voice mail notification depends on your service provider. When you receive a voice message, your phone beeps and either the ⬜⬜ icon or *1 message received* appears. To view the message immediately, select *Show*. To view it later, select *Exit*.

Listen to voice mail

If there is a notification message on your screen, you can get your voice messages by using one of the following methods:

- If you have saved your voice mailbox number in your phone, press and hold **1** to call your voice mailbox.

- Call your voice mailbox number as you would any other telephone number; then follow the directions provided.

To check your voice messages anytime, select *Menu* > *Messages* > *Voice messages* > *Listen to voice messages*.

■ Info messages (network service)

With the info message network service, you can receive short text messages from your service provider on various topics, such as weather and traffic conditions. Contact your service provider for more information.

■ Service commands

Use the *Service commands* editor to enter and send service requests (also known as USSD commands) to your service provider. Contact your service provider for information about specific service commands.

1. Select *Menu* > *Messages* > *Service commands*.

2. Enter a service request, and select *Options* > *Send*.

■ Delete messages

Single message

1. Select *Menu* > *Messages* and the folder containing the message you want to delete.

2. Select the message you want to delete, and *Options* > *Delete* > *Yes*.

All messages in a folder

Select *Menu* > *Messages* > *Delete messages*, the folder containing the messages you want to delete and *Yes*.

■ Message settings

Message settings affect the sending, receiving, and viewing of messages.

Text and e-mail

1. Select *Menu* > *Messages* > *Message settings* > *Text messages* > *Sending profile*.

2. If more than one message profile set is supported by your SIM card, select the set you want to change and one of the following:

   Message center no.—Allows you to save the phone number of the message center that is required for sending text messages. This number is provided by your service provider.

   Messages sent via— Allows you to select the message type, *Text*, *E-mail*, *Page*, or *Fax* (network service).

   Message validity—Allows you to select the length of time that the message center will try to deliver a message.

   Default recipient no.—Allows you to save a default number for sending text messages.

   E-mail server—Allows you to save the e-mail server number for sending e-mail messages.

   Delivery reports—Allows you to request the network send delivery reports about your messages (network service).

   Use GPRS—Allows you to set GPRS as the preferred method of sending text messages.

   Rep. via same centre—Allows the recipient of your message to send you a reply message using your message center (network service).

   Rename sending profile—Allows you to change the name of the selected sending profile. The default profile cannot be renamed. The sending profile sets display only if your SIM card supports more than one set.

Multimedia

Select *Menu* > *Messages* > *Message settings* > *Multimedia message* and one of the following:

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Save sent messages—Allows you to save sent multimedia messages to the *Sent items* folder.

Delivery reports—Allows you to ask the network for a report about message delivery.

Scale image down—Allows you to define the image size when you insert the image into the multimedia message.

Default slide timing—Allows you to define the default time for slides in multimedia messages.

Allow multim. recept.—Allows you to select *No*, *Yes*, or *In home network* to use the multimedia service. If you select *In home network*, you cannot receive multimedia messages outside the home network. *Yes* is usually the default setting. If *Allow multim. recept.* is set to *Yes* or *In home network*, your operator or service provider may charge you for every message you receive. The default setting to receive multimedia messages is generally on.

Incoming multi. msgs.—Select *Retrieve* to automatically receive newly received multimedia messages, or *Reject* if you do not want to receive multimedia messages. This setting is not shown if *Allow multim. recept.* is set to *No*.

Configuration settings—Select *Configuration* and the default service provider for retrieving multimedia messages. Select *Account* to see the accounts provided by the service provider. If more than one account is displayed, select the one that you want to use. You may receive the settings as a configuration message from the network operator or service provider.

Allow advertisements—Allows you to enable or disable reception of automatic multimedia advertisements. This setting is not shown if *Allow multim. recept.* is set to *No*.

Font settings

To select the font size for reading and writing messages, select *Menu* > *Messages* > *Message settings* > *Other settings* > *Font size*.

■ Message counter

View messages

To view how many messages you have sent and received, select *Menu* > *Messages* > *Message counter* > *Sent messages* or *Received messages*.

Note: The actual number of messages billed by your service provider may vary, depending on length of messages, provider rules and so forth.

Clear

To clear the message counters, select *Menu* > *Messages* > *Message counter* > *Clear counters*.

7. Call log

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

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

When you select *Options* in the *Missed calls*, *Received calls*, and *Dialed numbers* menus, you can view the date and the time of the call, edit or delete the phone number from the list, save the number in *Options*, or send a message to the number.

■ Recent calls lists

Select *Menu* > *Call log* and one of the following:

Missed calls—Allows you to view the list of up to 20 phone numbers from which someone has tried to call you (network service). The number in front of the name or phone number indicates the amount of call attempts from that caller. When a note about missed calls is displayed, select *List* to access the list of phone numbers. Scroll to the number that you would like to call back, and press the **Call** key

Received calls—Allows you to view the list of up to 20 phone numbers from which you have most recently accepted and rejected calls (network service).

Dialed numbers—Allows you to view the list of up to 20 phone numbers that you have most recently called or attempted to call. In the standby mode, press the **Call** key once to access the list of dialed numbers. Scroll to the number or name that you want, and press the **Call** key to call the number.

Delete recent call lists—Allows you to delete the recent calls lists. Select whether you want to delete all the phone numbers in the recent calls lists or only those numbers in the missed calls, received calls, or dialed numbers lists. You cannot undo this operation.

Options while viewing calls

Whether you are viewing missed, received, or dialed calls, the menu options are as follows:

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

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Send message—Sends a message to the number.

Edit number—Edits the number and associates a name with the number.

Save—Allows you to enter a name for the number and save it to *Contacts*.

Add to contact—Adds the number to an existing entry in *Contacts*, if the number is not associated with a name.

Delete—Clears the number from memory.

Call—Calls the number.

■ Call counters and timers

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

Select *Menu* > *Call log* and one of the following:

Call timers—Scroll to view the approximate duration of your incoming and outgoing calls in hours, minutes, and seconds. The security code is required to clear the timers.

If you have two phone lines available (network service), each phone line has its own call duration timers. The timers of the currently selected line are displayed. See Call settings on page 55.

GPRS data counter—Scroll to check the amounts of data that were sent or received in the last session, data sent and received in total, and to clear the counters. The counter unit is a byte. The security code is required to clear the counters.

GPRS connection timer—Scroll to check the approximate duration of the last GPRS connection or the total GPRS connection time. You can also clear the timers. The security code is required to clear the timers.

8. Contacts

In *Contacts*, you can store and manage contact information, such as names, phone numbers, and addresses. You can save names and numbers in the internal memory of the phone, the SIM card memory, or in a combination of the two.

■ Menu

Select *Menu* > *Contacts* and one of the following:

Find—Allows you to find a name or select from a list.

Add new contact—Allows you to add a name to *Contacts*.

Delete—Allows you to delete a name and its associated numbers.

Copy—Allows you to copy entries from phone memory to SIM and vice versa.

Settings—Allows you to set memory in use (phone or SIM), change *Contacts* view, and check the memory status of your phone and SIM card. See Settings on page 40 for more information.

1-touch dialing—Allows you to display the list of 1-touch dialing numbers saved to memory.

Voice tags—Allows you to associate a voice tag with a name and number. This phone voice dialing feature allows hands-free operation while you place a call. See Voice dialing on page 43.

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

My numbers—Allows you to view the phone numbers assigned to your SIM card.

Caller groups—Allows you to arrange the names and phone numbers saved in the memory into caller groups with different ringing tones.

■ Settings

Select *Menu* > *Contacts* > *Settings* and one of the following:

Memory in use—Allows you to select the memory, either SIM card or phone, that you want to use for your contacts. To recall names and numbers from both memories, select *Phone and SIM*. This enables the names and numbers to be saved in the phone memory.

Contacts view—Allows you to select how the names, numbers, and images in *Contacts* are displayed.

Memory status—Allows you to view how much memory is available in the selected memory for *Contacts*.

■ Add contact

From Contacts

1. Select *Menu* > *Contacts* > *Add new contact*.

2. Enter the contact's name, and select *Options* > *Accept*.

3. Enter the contact's number, and select *Options* > *Accept* > *Done*.

From standby mode

1. Press and hold the **Middle selection** key.

2. Enter the contact's number, and select *Options* > *Save*.

3. Enter the contact's name, and select *Options* > *Accept* > *Done*.

■ Save numbers, text items or an image

You can save different types of phone numbers and short text items per name in *Contacts*. The first number saved is automatically set as the default number. It is indicated with a frame around the number type indicator. When you select a name from *Contacts*, this number is used to make a call. To save multiple names, text items, and images per contact, do the following:

1. Make sure that the memory in use is either *Phone* or *Phone and SIM*.

2. Select *Menu* > *Contacts* > *Find*.

3. Scroll to the contact to which you want to add a new number or text item, and select *Details*.

4. Select *Options* and *Add number*, *Add detail*, or *Add image*.

5. If you are adding a number, select the number type you want, enter the phone number, and select *Accept*.

6. If you are adding a detail, select the text type you want, enter the text item, and select *Accept*.

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7. If you are adding an image, select *Images* > *Open*, scroll to the image you want, and select *Options* > *Save to contacts*.

Edit or delete

1. Select *Menu* >*Contacts* >*Find*, scroll to the contact for which you want to edit or delete information, and select *Details* > *Options*.

2. To edit a name, number, or text item or to change image, select *Edit name*, *Edit number*, *Edit detail*, or *Change image*.

3. To delete a number or text item, select *Delete number* or *Delete detail*.

4. To delete an image attached to the contact, select *Delete image*.

   If you delete an image from *Contacts*, it will not be deleted from the *Gallery*.

■ Business cards

You can send and receive a person's contact information to or from a compatible device as a business card.

Save or discard

If there is a notification message on your screen, indicating you have received a business card, select *Show* > *Save* to save the business card to the phone memory or *Exit* > *Yes* to discard the business card.

Send

1. Select *Menu* >*Contacts* >*Find*.

2. Scroll to the contact to which you want to send a business card, and select *Details* > *Options* > *Send business card*.

3. If you want to send the card by an IR connection, select *Via infrared* > *Default numbers* or *All details*.

4. If you want to send the card by SMS, select *Via text message* > *Default numbers* or *All details*, enter the number for the recipient, and select *Options*> *Accept*.

   No pictures can be sent if you select *Via text message*.

5. If you want to send the card by a Bluetooth connection, select *Via Bluetooth* > *Default numbers* or *All details*.

   The phone automatically searches for and displays devices to which to connect.

6. Select the device you want.

7. If you want to send the card by MMS, select *Via multimedia* > *Default numbers* or *All details*, enter the text you want, and select *Options* > *Send to* > *Phone number*, *E-mail address* or *Many*. Enter either the text item or number, and select *Options* > *Accept*.

■ Voice dialing

The phone voice dialing feature allows hands-free operation while you place a call. Before using this feature, you need to create entries in *Contacts* so you can associate a voice tag with a name and number. You can create up to 10 voice tags in your phone. To create entries in *Contacts*, see page 41.

Before using voice tags, note that:

- Voice tags are not language-dependent. They are dependent on the speaker's voice.

- You must say the name exactly as you said it when you recorded it.

- Voice tags are sensitive to background noise. Record voice tags and use them in a quiet environment.

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

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

Add voice tags

1. Select *Menu* > *Contacts* > *Find*.

2. Scroll to the contact to which you want to assign a voice tag, and select *Details*

3. Select *Options* > *Add voice tag* > *Start*; then speak the name clearly into the microphone.

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After recording, the phone plays the recorded tag. When the voice tag has been successfully saved, *Voice tag saved* is displayed, the ☺ icon appears next to the phone number, and a beep sounds with a voice tag.

Voice tag options

1. Select *Menu* > *Contacts* > *Voice tags*.

2. Scroll to the contact with the voice tag that you want, select *Options* and one of the following:

   Playback—Allows you to listen to the recorded voice tag.

   Change—Allows you to change the recorded voice tag.

   Delete—Allows you to delete the recorded voice tag.

Make a call using a voice tag

1. In the standby mode, press and hold the **Lower selection** key.

   A short tone is heard and *Speak now* is displayed.

2. Say the voice tag clearly into the microphone.

   The phone plays the recognized voice tag and automatically dials the number.

■ Info and service numbers

Your service provider may have included information numbers or service numbers in your SIM card. These menus are only shown if supported by your SIM card.

Select *Menu* > *Contacts* > *Info numbers* or *Service numbers*. Scroll through a category for an information number or a service number, and press the **Call** key to call the number.

■ My numbers

The phone numbers assigned to your SIM card are saved in *My numbers*, if this is supported by the SIM card. To view the numbers, select *Menu* > *Contacts* > *My numbers*, scroll to the name or number you want, and select *View*.

■ Caller groups

You can arrange the names and phone numbers saved in *Contacts* into caller groups. For each caller group, you can set the phone to sound a specific ringing

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tone and show a selected graphic on the display when the phone recognizes a call from a phone number in the group.

Select *Menu* > *Contacts* > *Caller groups*, the caller group you want, and one of the following:

Rename group—Enter a new name for the caller group, and select *OK*.

Group ringing tone—Select the ringing tone for the group. *Default* is the ringing tone selected for the currently active profile.

Group logo—Select *On* to set the phone to activate the group logo, *Off* to set the phone to deactivate the logo, or *View* to view it.

Group members—Select *Add* to add a name to the caller group, scroll to the name you want to add to the group, and select *Add*. To remove a name from a caller group, scroll to the name that you want to remove, and select *Options* > *Remove contact*.

9. Settings

Use this menu to set or change your profiles, themes, personal shortcuts, time and date settings, call settings, phone settings, display settings, tone settings, enhancement settings, security settings, and to restore factory settings.

■ Profiles

Profiles define how your phone reacts when you receive a call or a message, how your keypad sounds when you press a key, and more. Ringing options, keypad tones, and other settings for each of the six available profiles can be left at their default setting or customized to suit your needs. Select and customize the most suitable profile for your situation, such as when you are in a meeting or outdoors.

Activate

Select *Menu* > *Settings* > *Profiles*, a profile from the list, and *Activate*.

Customize

1. Select *Menu* > *Settings* > *Profiles*.

2. Scroll to the profile you want to customize, select *Customize*, and one of the following:

   Incoming call alert—Activate an alert for incoming calls. The options are *Ringing*, *Ascending*, *Ring once*, *Beep once* and *Off*.

   Ringing tone—Select the ringing tone for incoming calls. If you receive a ringing tone by downloading it, you can save it in the *Gallery*

   Ringing volume—Set the volume of your ringing tone.

   Light effects—Select to activate the pulsating light indicator, if the phone is switched on and the display light is switched off.

   Vibrating alert—Set the vibrating alert on or off.

   Message alert tone—Select the tone for received messages.

   Keypad tones—Set the volume for keypad tones.

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Warning tones—Set the warning and confirmation tones on or off.

Alert for—Define which caller groups the selected profile will accept or decline. See Caller groups on page 44 for more information.

Profile name—Rename the profile. You cannot rename the *Normal* profile.

Set timed

Timed profiles can prevent missed calls. For example, if you attend an event that requires you to set your phone to the *Silent* profile, you may forget to return the phone to the *Normal* profile after the event is over. You may not notice incoming calls. With the timed profile, you can have the phone automatically return to the *Normal* profile at a time you specify.

1. Select *Menu* > *Settings* > *Profiles* and the profile you want to activate.

2. Select *Timed*, enter the time for the profile to expire, and select *Options* > *Accept*.

■ Themes

You can change the look of your phone display by activating a theme. A theme can include a wallpaper image, a ringing tone, a screen saver, and a color scheme to customize your phone for different events and environments. Themes are stored in the *Gallery*.

Activate

1. Select *Menu* > *Settings* > *Themes* > *Select theme*.

2. Select *Themes* > *Open*, scroll to the theme you want, and select *Options* > *Apply theme*.

■ Tone settings

Select *Menu* > *Settings* > *Tone settings*. You can find the same settings in the *Profiles* menu. See Profiles on page 46 for more information. The settings you make will change the settings in the active profile.

■ Light settings

You can activate the pulsating light indicator, if the phone is switched on and the display light is switched off.

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Select *Menu* > *Settings* > *Light settings* > *Light effects*.

■ Display settings

Wallpaper

You can set your phone to display a background picture (wallpaper) on the start screen. Some images are presaved in the *Gallery* menu. You can also receive images (for example, using multimedia messages), transfer them with Nokia PC Suite from your PC or with Nokia Collector from your Mac computer, and save them in the *Gallery*. Your phone supports JPEG, GIF, WBMP, BMP, and PNG formats, but not necessarily all variations of these file formats. The wallpaper is not displayed when the phone activates the screen saver.

Select

1. Select *Menu* > *Settings* > *Display settings* > *Wallpaper* > *Select wallpaper*.

2. Scroll to a folder that contains images, and select *Open*.

3. Scroll to the image you want, and select *Options* > *Set as wallpaper*.

Activate or deactivate

Select *Menu* > *Settings* > *Display settings* > *Wallpaper* > *On* or *Off*.

Color schemes

You can change the color of some display components in your phone, such as indicators, signal bars, and the background image that appears when using a menu function.

Select *Menu* > *Settings* > *Display settings* > *Color schemes* and the color scheme you want.

Menu view

You can choose from two types of menu interface: *List* and *Grid*.

Select *Menu* > *Settings* > *Display settings* > *Menu view* > *List* or *Grid*.

Operator logo

You can to set your phone to display or hide the operator logo. If you have not saved the operator logo, the *Operator logo* menu is dimmed. The operator logo is

not displayed when the phone activates the screen saver. Contact your service provider for availability.

Select *Menu* > *Settings* > *Display settings* > *Operator logo* > *On* or *Off*.

Screen saver

The *Screen saver* is activated when no function of the phone is used after a preset period of time. Press any key to deactivate the screen saver. The *Screen saver* is also deactivated when the phone is out of the network coverage area. The *Screen saver* overrides all the graphics and texts on the display in the standby mode.

Select

With the *Select screen saver* option, you can choose an animation or a still image as the screen saver from the *Graphics* folder in the *Gallery*.

1. Select *Menu* > *Settings* > *Display settings* > *Screen saver* > *Select screen saver*.

2. Scroll to a folder that contains images, and select *Open*.

3. Scroll to the image you want, and select *Options* > *Set as screen saver*.

Set timeout

You can set your phone to display a screen saver after a preset time or after a custom time (up to 10 minutes) of your choosing.

1. Select *Menu* > *Settings* > *Display settings* > *Screen saver* > *Time-out*.

2. Select *10 seconds*, *30 seconds*, or *Other*.

Activate or deactivate

Select *Menu* > *Settings* > *Display settings* > *Screen saver* > *On* or *Off*.

■ Time and date settings

Select *Menu* > *Settings* > *Time and date settings* and one of the following:

Clock—Allows you to show the time in the standby mode. The clock serves the functions *Messages*, *Call log*, *Alarm clock*, timed *Profiles*, *Calendar*, *Notes*, and *Screen saver*. The options are:

- *Show clock* or *Hide clock*—Show (or hide) the time on the top right of the display in the standby mode.

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- *Set the time*—Adjust the clock to the correct time. If the battery needs charging, you may need to set the time again.

- *Time zone*—Set the time zone.

- *Time format*— Select the 12-hour or 24-hour time format.

Date—Allows you to show the date in the standby mode. The options are:

- *Show date* or *Hide date*—Show (or hide) the date in the display in the standby mode.

- *Set the date*—Adjust the date.

- *Date format*—Select from nine different date formats.

- *Date separator*—Select from four different date separators.

Auto-update of time (network service)—Set the phone to automatically update the time and date according to the current time zone. To set the phone to request a confirmation before the update, select *Confirm first*. The automatic update of the date and time does not change the time that you have set for the alarm clock, calendar, or the alarm notes. They are in local time. Updating may cause some alarms that you have set to expire. Contact your service provider for availability.

■ Personal shortcuts

You can set your most frequently used functions to be quickly accessed through the *Personal shortcuts* feature. You can change the function of the **Lower selection** key, so that these frequently used functions can be quickly accessed from the start screen. To select a specific function name for the **Lower selection** key to be displayed in the start screen, do the following:

Select *Menu* > *Settings* > *Personal shortcuts* > *Lower selection key* and a function from the list. The name of the **Lower selection** key changes in the standby mode according to the function.

Voice commands

The *Voice commands* feature allows access to hands-free operation for certain phone functions. Voice commands work similar to voice dialing. Before using voice commands, you must first associate a voice tag to the phone function you want to use. You can select up to five functions.

Add a voice tag

1. Select *Menu* > *Settings* > *Personal shortcuts* > *Voice commands* and the function folder that you want.

2. Scroll to the function to which you want to add a voice tag, and select *Add*.

3. Select *Start*, and speak the voice tag clearly into the microphone.

After recording, the phone plays the recorded tag. When the voice tag has been successfully saved, *Voice tag saved* is displayed, the 🔄 icon appears next to the phone number, and a beep sounds with a voice tag. See Voice tag options and Make a call using a voice tag on page 44 for more information about voice tags.

During a call or when an application is sending or receiving data using a GPRS connection, you cannot activate or add a voice command.

■ Connectivity

You can connect the phone to a compatible device by using an infrared or a Bluetooth connection. You can also define the settings for GPRS dial-up connections.

Bluetooth wireless technology

This device is compliant with Bluetooth wireless technology Specification 1.1 supporting the following profiles: Headset Profile, Handsfree Profile, Object Push Profile, File Transfer Profile, and Dial Up Networking Profile. To ensure interoperability between other devices supporting Bluetooth wireless technology, use Nokia approved enhancements for this model. Check with the manufacturers of other devices to determine their compatibility with this device.

> **Note:** There may be restrictions on using Bluetooth devices in some locations. Check with your local authorities or service provider.

Using Bluetooth features, or allowing them to run in the background while using other features, increases the demand on battery power and reduces the battery life.

Bluetooth technology enables wireless connections between electronic devices within a maximum range of approximately 33 feet (10 meters). A Bluetooth

connection can be used to send images, videos, texts, business cards, calendar notes, or to connect wirelessly to compatible devices using Bluetooth technology, such as computers. Please note that not all computers using Bluetooth technology are necessarily compatible.

When you activate Bluetooth technology for the first time, you are asked to give a name to your phone.

Set up a Bluetooth connection

1. Select *Menu* > *Settings* > *Connectivity* > *Bluetooth*.

2. To activate the Bluetooth function, select *Bluetooth* > *On*.

    If you do not use the Bluetooth feature for some time, you can deactivate it to save power.

3. Select *Search for audio enhancements* to search for compatible Bluetooth audio devices and the device that you want to connect to the phone; or select *Paired devices* to search for any Bluetooth device in range. If the list is empty, select *New* to list any Bluetooth device in range. Scroll to a device, and select *Pair*.

4. Enter the Bluetooth passcode of the device to associate (pair), connect the device to your phone, and start using the device. You only need to give this passcode when you connect to the device for the first time.

Bluetooth connection

1. Select *Menu* > *Settings* > *Connectivity* > *Bluetooth* and one of the following:

    Active device—Check which Bluetooth connection is currently active. If you want to close the connection to the selected device, select *Disconnect*.

    Paired devices—View a list of Bluetooth devices that are currently paired with the phone. Scroll to the device you want. If you want to delete the pairing to the device, select *Delete*.

2. Select *Connect* to connect to the selected device or *Options* to access some of the following functions, depending on the status of the device and the Bluetooth connection. Select one of the following:

    Assign short name—Give a nickname (visible to you only) to the selected device.

Auto-conn., no conf.—Select *Yes* if you want the phone to connect to the selected device automatically or *No* if you want the phone to ask for your permission first.

An active Bluetooth connection is indicated by 《◉》 at the top of the display.

Bluetooth settings

Select *Menu* > *Settings* > *Settings* > *Connectivity* > *Bluetooth* > *Bluetooth settings* to define how your phone is shown to other Bluetooth devices. Select one of the following:

My phone's visibility and *Shown to all*—Allows you to show the phone to all other Bluetooth devices or *Hidden* to show the phone only to the paired devices. The phone is not visible to other devices when already connected to one device. It is recommended to use the hidden mode, if possible.

My phone's name—Allows you to change your phone's Bluetooth device name that is seen by other Bluetooth device users.

Infrared

You can set up the phone to receive data through its infrared (IR) port. To use an IR connection, the device with which you want to establish a connection must be IrDA compliant. You can send or receive data such as business cards, graphics, images, music files, videos, and calendar notes to or from a compatible phone or data device (for example, a computer) using the IR port of your phone.

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.

Send and receive 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. The preferable distance between the two devices in an infrared connection is approximately three feet (one meter), at most.

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

- The user of the sending phone selects the desired IR function to start data transfer.

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

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Connection indicator

- When ▶••• is shown continuously, the IR connection is activated, and your phone is ready to send or receive data by using the IR port.

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

GPRS (network service)

GPRS (general packet radio service) is a service that allows mobile phones to be used for sending and receiving data over an Internet Protocol (IP) -based network. GPRS is a data bearer that enables wireless access to data networks such as the Internet.

The applications that may use GPRS are MMS, video streaming, browsing sessions, e-mail, remote SyncML, and the PC dial-up.

Before you can use GPRS technology, you must do the following:

- Contact your network operator or service provider for availability and subscription to the GPRS service.

- Save the GPRS settings for each of the applications used over GPRS.

For information on pricing, contact your service provider.

GPRS connection

Select *Menu* > *Settings* > *Connectivity* > *GPRS* > *GPRS connection* and one of the following:

Always online—Sets the phone to automatically register to a GPRS network when you switch the phone on. When the GPRS service is available, the 🅖 icon is shown on the top left of the display.

When you start an application using GPRS, the connection between phone and network is established, the 🅖 icon is shown, and data transfer is possible. When you end the application, the GPRS connection is ended, but the registration to the GPRS network remains.

If you receive a call or a text message or make a call during a GPRS connection, the 🅖 icon appears on the top right of the display to indicate that the GPRS connection is suspended (on hold).

When needed—The GPRS registration and connection are established when an application using GPRS needs it and closes when you end the application.

Your phone supports three simultaneous GPRS connections. For example, you can view XHTML pages, receive multimedia messages, and have an ongoing PC dial-up connection at the same time.

GPRS modem settings

You can connect the phone using Bluetooth and IR to a compatible PC and use the phone as a modem to enable GPRS connectivity from the PC.

Define

1. Select *Menu* > *Settings* > *Connectivity* > *GPRS* > *GPRS connection* > *GPRS modem settings*.

2. Select *Active access point* and activate the access point you want to use.

3. Select *Edit active access point* to change the access point settings.

4. Select *Alias for access point*, enter the name you would like for the activated access point, and select *OK*.

5. Select *GPRS access point*, enter the access point name (APN) to establish a connection to a GPRS network, and select *OK*. Contact your service provider for the APN.

You can also set the GPRS service settings (APN) on your PC using the Nokia Modem Options software. If you have set the settings on your PC and on your phone, the PC settings will be used.

■ Call settings

Auto-volume control

Auto-volume control allows the phone to automatically adjust the speaker volume according to the background noise.

Select *Menu* > *Settings* > *Call settings* > *Auto-volume control* > *On* or *Off*.

Audio enhancing

Audio enhancing allows your voice to be modified so that it can be heard easily in noisy environment.

Select *Menu* > *Settings* > *Call settings* > *Audio enhancing* > *On* or *Off*.

Call forwarding (network service)

Call forwarding tells your network to redirect incoming calls to another number. It is a network-dependent feature and may not work the same in all networks. Contact your service provider for availability.

Call blocking and call forwarding cannot be active at the same time. When calls are blocked, calls still may be possible to certain official emergency numbers.

Activate

1. Select *Menu* > *Settings* > *Call settings* > *Call forwarding* and one of the following:

   Forward all voice calls—Forward all calls to the number you specify.

   Forward if busy—Forward incoming calls when you are in a call.

   Forward if not answered—Forward incoming calls to another number if you are unable to answer.

   Forward if out of reach—Forward incoming calls when your phone is off.

   Forward if not available—Forward incoming calls when you are not available.

   Forward all data calls—Forward all data calls to a data mailbox.

2. Select *Activate* and the destination where you want your calls to be forwarded.

3. Enter the number to which your calls, data, or other information will be forwarded, and select *Options* > *Accept*.

Cancel

Select *Menu* > *Settings* > *Call settings* > *Call forwarding* > *Cancel all call forwarding*.

Note: If you cancel all call forwarding, this may affect your ability to receive voice mail messages. Contact your service provider for specific details.

Automatic redial

Occasionally, your network may experience heavy traffic, resulting in a fast busy signal when you dial. With automatic redial activated, your phone redials the number up to 10 times, and notifies you when the network is available.

Select *Menu* > *Settings* > *Call settings* > *Automatic redial* > *On* or *Off*.

1–touch dialing

Select *Menu* > *Settings* > *Call settings* > *1-touch dialing* > *On* or *Off*.

Call waiting (network service)

If supported by your service provider, call waiting notifies you of an incoming call while you are in a call. You can accept, reject, or ignore the incoming call.

Activate

Select *Menu* > *Settings* > *Call settings* > *Call waiting* > *Activate*.

Use

1. During a call, press the **Call** key to answer the waiting call.

2. Press the **End** key to end the active call.

Summary after call

Summary after call allows the phone to briefly display the approximate duration and cost of the call after each call.

Select *Menu* > *Settings* > *Call settings* > *Summary after call* > *On*.

Send my caller ID (network service)

You can prevent your number from being displayed on the receiving party's caller ID. This feature is network-dependent and works on a call-by-call basis. Contact your service provider for more information.

Select *Menu* > *Settings* > *Call settings* > *Send my caller ID* > *Yes* or *No*.

If you select *Set by network*, the setting agreed upon with your service provider is used.

■ Phone settings

Set the display language

1. Select *Menu* > *Settings* > *Phone settings* > *Phone language*.

2. Select the language you want.

   If you select *Automatic*, the phone selects the language according to the information on the SIM card.

Memory status

Memory status allows you to view the free memory, the total used memory, and the used memory for each function in the list. You may also find the memory information in the menu of some of those functions.

Select *Menu* > *Settings* > *Phone settings* > *Memory status*.

Set automatic keyguard

You can have your phone automatically lock the keys after a time you specify.

1. Select *Menu* > *Settings* > *Phone settings* > *Automatic keyguard* > *On*.

2. Enter the delay time (in mm:ss format), and select *Options* > *Accept*.

Set security keyguard

You can set your phone to ask for a security code when you unlock the keyguard.

Select *Menu* > *Settings* > *Phone settings* > *Security keyguard*, enter the security code, and select *On*.

Cell info display (network service)

Cell info display is network-dependent and may not work the same in all networks. Contact your service provider for availability.

Select *Menu* > *Settings* > *Phone settings* > *Cell info display* > *On* or *Off*.

Write a welcome note

Predictive text input is unavailable for entering welcome note text.

1. Select *Menu* > *Settings* > *Phone settings* > *Welcome note*.

2. Enter a note, and select *Options* > *Save*.

Operator selection

Select *Menu* > *Settings* > *Phone settings* > *Operator selection* and one of the following:

Automatic—The phone automatically selects one of the cellular networks available in your area.

Manual—You can select a network that has a roaming agreement with your home network operator. If *No network access* is displayed, you must select

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another network. The phone stays in manual mode until the automatic mode is selected or another SIM card is inserted into the phone.

Confirm SIM actions

In addition to the functions available on the phone, your SIM card may provide additional services that you can access in this menu, which is shown only if it is supported by your SIM card. The name and contents of the menu depend on the SIM card. Accessing these services may involve sending messages or making a phone call for which you may be charged.

For availability, rates, and information on using SIM services, contact your SIM card vendor (for example, network operator, service provider or other vendor).

Depending on the operator or service provider, you can set the phone to show you the confirmation messages sent between your phone and the network when you are using the SIM services. To set the phone to show your confirmation messages, do the following:

Select *Menu* > *Settings* > *Phone settings* > *Confirm SIM actions* > *Yes*.

Help text activation

Your phone displays brief descriptions for most menu items.

Select *Menu* > *Settings* > *Phone settings* > *Help text activation* > *On* or *Off*.

Start-up tone

Select *Menu* > *Settings* > *Phone settings* > *Start-up tone* > *On* or *Off*.

■ Enhancement settings

The *Enhancement settings* menu is shown only if the phone is or has been connected to a compatible mobile enhancement, such as a charger or a hands-free unit.

Select *Menu* > *Settings* > *Enhancement settings* and the enhancement menu you want. Depending on the enhancement, you can select some of the following options:

Default profile—Select the profile that you want to be automatically activated when you connect to the selected enhancement. You can select another profile while the enhancement is connected.

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

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

■ Configuration settings

Some of the network services, such as mobile Internet services, MMS, or synchronization need to have the correct configuration settings on your phone. Obtain the settings from a service provider as a configuration message, or enter your personal settings manually. Configuration settings from up to 10 different service providers can be stored in the phone and can be managed within this menu.

To save the configuration settings received by a configuration message sent by a service provider, see Configuration settings service on page 8.

The settings can also be viewed and partly edited in the different applications.

Select *Menu* > *Settings* > *Configuration settings* and one of the following:

Default config.—View the list of service providers stored on the phone (the default service provider is highlighted), and select another service provider as default. Scroll to a provider, and select *Details* to view the list with supported applications. To delete a service provider from the list, select *Options* > *Delete*.

Activate default in all applications—Set the applications to use the settings from the default service provider.

Preferred access point—Select another access point. Normally the access point from your preferred network operator is to be used.

Enter manually

The settings can be entered manually.

- To enter, view, and edit the settings manually, select *Menu* > *Settings* > *Configuration settings* > *Personal config. settings*.

- To add a new configuration, select *Add new* or *Options* > *Add new*. Select one of the application types from the list, and enter all the necessary settings. To activate the settings, select *Back* > *Options* > *Activate*.

- To view or to edit the user-defined settings, select the application you want to view and the setting you want to edit.

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■ Security settings

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

Select *Menu* > *Settings* > *Security settings* and one of the following:

PIN code request —Sets the phone to request your PIN code every time the phone is switched on. Some SIM cards do not allow the PIN code request to be turned off.

Call restrictions (network service)—Restricts incoming and outgoing calls. A restriction password is required.

Fixed dialing—Restricts your outgoing calls and text messages to selected phone numbers if this function is supported by your SIM card. The PIN2 code is required.

When fixed dialing is on, GPRS connections are not possible except while sending text messages over a GPRS connection. In this case, the recipient's phone number and the message center number have to be included in the fixed dialing list.

Closed user group (network service)—Specifies the group of people whom you can call and who can call you. For more information, contact your service provider.

Security level—Select *Phone* and the phone will request the security code whenever a new SIM card is inserted into the phone. Select *Memory* and the phone will request the security code when the SIM card memory is selected and you want to change the memory in use. See Settings on page 40.

Access codes—Changes the security code, PIN code, PIN2 code, or restriction password. Codes can only include numbers from 0 to 9.

■ Restore factory settings

You can reset some of the menu settings to their original values.

1. Select *Menu* > *Settings* > *Security settings* > *Restore factory settings*.

2. Enter the security code (the default is 12345), and select *OK*.

Data that you have entered or downloaded is not deleted. For example, names and numbers in *Contacts* are not affected.

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10. Gallery

In this menu, you can manage graphics, images, video clips, recordings, and tones that you have saved (for example, from multimedia messages). These files are arranged in folders.

Your phone supports a digital rights management (DRM) system to protect acquired content. Always check the delivery and usage terms of any content before downloading any new content.

1. Select *Menu* > *Gallery*.

   A list of folders displays. *Images*, *Video clips*, *Themes*, *Graphics*, *Tones*, and *Recordings* are the original folders on the phone. You cannot delete, rename, or move these folders.

2. Scroll to the folder you want, select *Open*, scroll to an image, tone or voice recording, and select *Options* and one of the following:

   Delete folder—Delete a folder you have created.

   Move—Move the file to another folder.

   Rename folder—Rename a folder you have created.

   Downloads—Download more images, tones, and videos. Select *Graphic downloads*, *Tone downloads*, *Video downloads*, or *Theme downloads*. The list of available browser bookmarks is shown. Select *More bookmarks* to access the list of bookmarks in the *Web* menu. See Bookmarks on page 77 for more information.

   Details—View details of the file, such as the name, time, and date the file was created.

   Type of view—Select the type of view you want.

   Sort—Sort the files according to date, type, name, or size.

   Add folder—Create a new folder.

   Memory status—Find out how much memory is being used by the graphics and ringing tones in the *Gallery*.

   Activation key list—View the list of all available activation keys.

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3. If you have opened a folder, select the file that you want to view, *Open*, and an option that may be available for the selected file.

The options are: *Delete*, *Send*, *Edit image*, *Move*, *Rename*, *Set as wallpaper*, *Set as ring tone*, *Apply theme*, *Details*, *Type of view*, *Sort*, *Delete all*, *Open in sequence*, *Mute audio* or *Unmute audio*, *Set contrast*, *Add folder*, *Memory status*, and *Activation key list*.

You can send files from the *Gallery* by a Bluetooth or an IR connection or MMS.

11. Media

■ Camera

You can take photos with the built-in camera. The camera lens is on the back of the phone, and the display of the phone works as a viewfinder. See Nokia 7280 phone at a glance on page 11 for more information. The camera produces pictures in JPEG format.

If there is not enough memory to take a new photo, you need to free some by deleting old photos or other files in the *Gallery*.

The Nokia 7280 mobile phone supports an image capture resolution of 640 x 480 pixels. The image resolution in these materials may appear different.

Take a photo

1. Select *Menu* > *Media* > *Camera*.

2. To take a photo, select *Capture*.

   A shutter sound is heard. The phone saves the photo in the *Images* folder of the *Gallery*.

3. If you want to delete the photo, select *Delete*.

4. If you want to send the photo as a multimedia message, using IR or Bluetooth technology, select *Options* > *Send*.

5. If you want to take another photo, select *Back* > *Capture*.

Options

Select *Menu* > *Media* > *Camera* > *Options* and one of the following:

Change mode—Changes the camera mode. Select *Standard photo* or *Portrait photo*. If the lighting is dim for taking photos, select *Night mode*. If you want to add the photo to a name or a phone number saved in *Contacts*, select *Portrait photo*.

Zoom—Allows you to get closer to your subject. In viewfinder mode, move the spinner clockwise or counterclockwise to zoom in or out.

Self-timer—Activates the self-timer. Select *Start*, and after the timeout, the camera takes the photo. While the self-timer is running, a beeping sound is heard.

View previous—Allows you to view the previous photo in the same photo session.

Open gallery—Allows you to open the *Gallery* menu. See Gallery on page 62 for more information.

Settings—Allows you to adjust the camera settings:

- *Default mode*—Defines the default camera mode.

- *Image quality*—Defines how much the photo file will be compressed when saving the image. The options are *High*, *Normal* or *Basic*. *High* provides the best image quality, but uses more memory.

- *Video clip length*—Allows you to select the length of the video clips recorded with the camera. Only video clips that are of default length or shorter can be sent in a multimedia message.

- *Camera sounds* —Sets the shutter sound and the self-timer tone to *On* or *Off*.

- *Default title* —Defines the title that will be used when saving a photo or a video clip. If you select *Automatic*, the default title is used; or if you select *My title*, you can enter or edit a new title.

■ Media player

Use the media player to view, play, and download files like images, audio, video, and animated images from different kinds of sources.

The media player allows you to see compatible streaming videos from a network server. Streaming functionality is an operator dependent feature and requires network support. Check the availability of these services, pricing, and tariffs with your service provider. Service providers will also give you instructions on how to use their services.

Select *Menu* > *Media* > *Media player* and one of the following:

Open gallery—Allows you to open the *Gallery* menu. See Gallery on page 62 for more information.

Bookmarks —Allows you to open the *Bookmarks*. See Bookmarks on page77 for more information.

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

Media downloads—Allows you to download more graphics, tones, or videos.

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Streaming service

You may receive the streaming settings as a configuration message from the network operator or service provider that offers the service that you want to use.

For more information and for the appropriate settings, contact your service provider. To receive the service settings as a configuration message, see Configuration settings service on page 8. See also Configuration settings on page 60. You can also edit the settings with Nokia PC Suite.

Activate

1. Select *Menu* > *Media* > *Media player* > *Streaming settings* > *Active conn. settings*.

2. Scroll to the connection set you would like to activate, and select *Activate*.

   You need to activate the connection set where you want to save the service settings. A connection set is a collection of settings required to make a connection to a service.

Edit settings

1. Select *Menu* > *Media* > *Media player* > *Streaming settings* >*Edit active connection settings*.

2. Select each of the settings one by one, and enter all the required settings from the information you have received from your service provider.

■ Radio

The FM radio uses the wire of the headset as an antenna. A compatible headset needs to be attached to the device for the FM radio to function properly. To listen to the FM radio on your phone, connect the compatible headset into the headset jack in the phone. See The headset on page 17 for more information. The quality of the radio broadcast depends on the radio station's coverage in that particular area.

Note: Listen to music at a moderate level. Continuous exposure to high volume may damage your hearing.

Activate

1. Select *Menu* > *Media* > *Radio*.

The channel location number, and the name of the radio channel (if you have saved the channel), and the frequency of the radio channel are displayed.

2. If you have already saved radio channels, scroll and select a radio channel location 1 to 20.

   When using the compatible headset supplied with the headset key, scroll to the desired saved radio channel.

Channels

After you have turned on the radio, you can access and save radio channels.

Change frequency

Select ◄◄ or ►► and press *Select* to change the radio frequency in 0.05 MHz steps.

Search

Press and hold *Select* to start a channel search.

Save

Select *Options* > *Save channel*, enter the name of the channel, and select *Options* > *Accept*.

Access

Select ▲ or ▼ to scroll to the previous or next saved channel.

Use

Select *Menu* > *Media* > *Radio* > *Options* and one of the following:

Turn off —Turns off the radio.

Volume—Sets the volume of the radio.

Channels—Allows you to view the channel list and delete or rename a channel.

Loudspeaker (or *Headset*)—Allows you 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—Allows you to enter the frequency of the radio channel to which you want to listen. You can enter a frequency between 87.5 MHz and 108.0 MHz. To set the frequency, select *Options* > *Accept*.

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

■ Voice recorder

You can record pieces of speech, sound, or an active call for up to three minutes. 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

1. Select *Menu* > *Media* > *Voice recorder*.

2. To start the recording, select *Record*; or to start the recording during a call, select *Options* > *Record*.

   While recording a call, all parties to the call will hear a faint beeping sound approximately every five seconds. Hold the phone in the normal position near to your ear.

3. To end the recording, select *Stop*.

   The recording is saved in the *Recordings* folder of the *Gallery* menu.

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

5. To send the latest recording, select *Send last recorded*. The recording can be sent by IR, Bluetooth, or MMS.

List of recordings

1. Select *Menu* > *Media* > *Voice recorder* > *Recordings list* to display the list of folders in the *Gallery*.

2. Select *Recordings* > *Open* > *Options* and an option for files in the *Gallery*. See Gallery on page 62 for more information.

12. Organizer

Your Nokia 7280 mobile phone has many useful features for organizing your everyday life. The following features are found in *Organizer*: alarm clock, calendar, to-do list, notes, and synchronization.

■ Alarm clock

The alarm clock uses the time format set for the clock. The alarm clock works even when the phone is switched off if there is enough power in the battery.

Set alarm

1. Select *Menu* > *Organizer* > *Alarm clock* > *Alarm time*.

2. Enter the time for the alarm in hh:mm format, and select *Options* > *Accept*.

3. If you want to change the alarm time, select *Alarm time* > *On*, enter the new time for the alarm in hh:mm format, and select *Options* > *Accept*.

Turn off alarm

Select *Menu* > *Organizer* > *Alarm clock* > *Alarm time* > *Off*.

Set repeat alarm

Use the *Repeat alarm* function to alert you on selected days of the week.

1. Select *Menu* > *Organizer* > *Alarm clock* > *Repeat alarm* > *On*.

2. Scroll to the day you want, and select *Mark*.

3. To add other days, repeat step 2.

4. To mark all the days, select *Options* > *Mark all*.

5. Select *Done*.

Select a tone

Select *Menu* > *Organizer* > *Alarm clock* > *Alarm tone* > *Standard*, *Radio*, *Open Gallery*, or *Tone downloads*.

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Alert tone and message

The phone sounds an alert tone, the message *Alarm!* and the current time appear in the display.

Select *Stop* to stop the alarm. If you let the phone continue to sound the alarm for a minute or select *Snooze*, the alarm stops for about 10 minutes, then resumes.

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

■ Calendar

The calendar helps you keep track of reminders, calls that you need to make, meetings, and birthdays.

1. Select *Menu* > *Organizer* > *Calendar*.

2. Scroll to the day that you want.

   The current day is indicated by a frame around the day. If there are any notes set for the day, the day is in bold type.

3. To view the day notes, select *View*.

4. To view a week, select *Options* > *Week view*.

Note a specific date

1. Go to the date for which you want to set a reminder, and select *View*.

2. Select *Options*> *Make a note* > *Meeting*, *Call*, *Birthday*, *Memo*, or *Reminder*.

3. Enter the information requested by the prompts, and select *Options* > *Accept*.

Delete a note

1. Go to the date for which you want to delete a note, and select *View*.

2. Scroll to the note you want to delete, and select *Options* > *Delete* > *Yes*.

Calendar notes options

Select *Options* while viewing a note to display the following options:

Make a note—Create a calendar note. See Note a specific date on page 70 for more information.

Delete—Delete the note.

Edit—Edit the note.

Move—Move the note to another date on your calendar.

Repeat—Repeat the note every day, every week, every 2 weeks, every month, or every month.

Go to date—Jump to another date on your calendar.

Go to today—Jump to today's date on your calendar.

Send note—Send the note by IR, Bluetooth, as a note directly to another compatible phone's calendar, or as a text or multimedia message.

Copy—Copy the note. You can then paste the note to another date.

Settings—Set the date, time, time zone, date separator, date and time format, the day each week starts, and whether you want your notes to automatically delete after a specified time.

■ To-do list

You can save a note for a task that you have to do, select a priority level for the note, and mark it as done when you have completed it. You can sort the notes by priority or by date.

Add a to-do note

When you add a new note, the default priority is *Medium*. You can change the priority to *High* or *Low*.

1. Select *Menu* > *Organizer* > *To-do list* > *Add*.

2. Enter your note, select *Options* > *Save*, and the priority you want.

To-do note options

Select *Options* while viewing a note to display the following options: *Deadline*, *Mark note as done*, *Delete*, *Edit priority*, *Send*, *Go to calendar*, and *Save to calendar*.

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■ Notes

You can use this function for writing and sending notes to compatible devices by IR, Bluetooth, SMS, or MMS.

1. Select *Menu* > *Organizer* > *Notes* > *Add*.

2. Enter your note, and select *Options* > *Save*.

■ Synchronization

Synchronization allows you to save your calendar and contacts data on a remote Internet server (network service) or on a compatible computer. If you have saved data on the remote Internet server, you can synchronize your phone by starting the synchronization from your phone. You can also synchronize the data in your phone *Contacts*, *Calendar*, and *Notes* to correspond to the data of your compatible computer by starting the synchronization from your computer. The contact data in your SIM card will not be synchronized. Answering an incoming call during synchronization will end the synchronization and you will need to restart it.

From your phone

Before synchronizing from your phone, you need to subscribe to a synchronization service and obtain the configuration settings from your service provider. For more information on availability and the synchronization service settings, contact your service provider.

To start the synchronization from your phone:

1. Activate the connection settings you need for the synchronization. See Connection settings on page 73.

2. Select *Menu* > *Organizer* > *Synchronization* > *Server sync* > *Data to be synchron.*

3. Mark the data to be synchronized, and select *Done*.

4. Select *Menu* > *Organizer* > *Synchronization* > *Server sync* > *Synchronize*.

    The marked data of the active set will be synchronized after confirmation.

If *Contacts* or *Calendar* is full, a first time synchronization or an interrupted synchronization may take up to 30 minutes to complete.

Connection settings

You may receive the synchronization settings as a configuration message from your service provider. For information about receiving the settings as a configuration message, see Configuration settings service on page 8. To enter the settings manually, see Configuration settings on page 60.

Activate

1. Select *Menu* > *Organizer* > *Synchronization* > *Server sync* > *Sync settings*.

2. Select *Configuration*, scroll to your service provider's settings, and press *Select*.

3. If you want to see the accounts provided by the service provider, select *Account* and the account you want, if there is more than one.

Sychronize

Make sure that the phone is in the standby mode and that the time and date are set.

From a compatible PC

To synchronize *Contacts*, *Calendar*, and *Notes* from a compatible PC, use either an IR or Bluetooth connection. You also need the Nokia PC Suite software for your phone installed on the PC. Start the synchronization from the PC, by using Nokia PC suite. For more information about Nokia PC Suite, see the software online help or visit the support pages at **www.nokiausa.com**.

From a compatible Mac computer

To synchronize certain files from a compatible Mac computer, use a Bluetooth connection. You also need the Nokia Collector software for your phone installed on the Mac. The Nokia Collector software and user guide are provided on the CD-ROM supplied with your phone. For information on how to install Nokia Collector, see the Nokia Collector user guide.

13. Web

Your phone has a built-in browser you can use to connect to selected services on the mobile Internet. Many wireless mobile Internet access features are network-dependent, and some features may not be available. Contact your service provider for more information.

■ Technology background

A technology called Wireless Application Protocol (WAP) is to mobile devices what the World Wide Web (WWW) is to personal computers. The mobile community began developing WAP several years ago to provide access to the Internet for mobile users.

Most WAP sites are made up of text and hyperlinks. Some pages even contain low-resolution graphics, or require data input. Your service provider and others are free to design WAP sites as they choose, so the sites are as varied as the web pages on the Internet.

Internet content on your personal computer is called a "web page." Internet content on your mobile phone is called a "page," "WAP card," or a "Deck of cards." You may not be able to view all the details of the mobile Internet pages, as page appearance may vary due to screen size.

■ Service provider

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

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

■ Access service

Set up service

Your phone may have stored some service settings. Additional settings may be received as a configuration message from your service provider.

To receive the service settings as a configuration message, see Configuration settings service on page 8 and Configuration settings on page 60.

For more information and for the appropriate settings, contact your service provider.

Activate the settings

Make sure that the *Web* settings of the service you want to use are activated.

1. Select *Menu* > *Web* > *Settings* > *Configuration settings*.

2. Select *Configuration* and the configuration set you want to activate.

Connect to a service

There are several ways to connect to the service.

- To open the service's home page, select *Menu* > *Web* > *Home*.

- To select a bookmark, select *Menu* > *Web* > *Bookmarks* and a bookmark from the list. If the bookmark does not work with the current active service settings, activate another set of service settings, and try again.

- To select the last viewed web site, select *Menu* > *Web* > *Last web address*.

- To enter the address of the service, select *Menu* > *Web* > *Last web address*, enter the address of the service, and select *Options* > *Accept*.

Disconnect from a service

To quit browsing and to end the connection, select *Options* > *Quit* >*Yes*; or press the **End** key twice or press and hold the **End** key.

■ Browse

It should not be necessary to manually configure the browser on your phone. Normally this is done by your service provider once you have subscribed to the feature. Contact your service provider if you have problems using the browser.

After you have made 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 GPRS is selected as the data bearer, the ▣ icon 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 GPRS connection, the ▤ icon is shown on the top right of the display to indicate that the GPRS connection is suspended (on hold). After a call, for example, the phone tries to reconnect the GPRS connection.

Phone keys

- Use the spinner to browse through the page.

- To select a highlighted item, press the **Call** key, or select *Options* to select the option for opening the link.

- To enter letters, numbers or special characters, press the **Middle selection** key, and select the characters one by one from the character bar.

Options

Select *Options* and the following options may be available. Your service provider may also offer other options.

Scroll right-left or *Scroll up-down*—Changes the scroll direction of a page.

Shortcuts—Opens a new list of options that are specific to the page.

Home—Starts the browser and takes you to your service provider's home page.

Add bookmark—Saves the page as a bookmark.

Bookmarks—Shows a list of all saved bookmarks. Bookmarks help you find a WAP site quickly.

Page options—Shows options related to the current page.

History—Generates a list showing last visited WAP sites.

Download links—Shows the list of bookmarks for downloading.

Save to folder—Saves the current page to a download folder.

Other options—Shows a list of other options, such as, options for some security options.

Reload—Reloads and updates the current page.

Quit—Disconnects from the mobile Internet.

Appearance settings

You can determine how pages appear on the phone display.

1. In the standby mode, select *Menu* > *Web* > *Settings* > *Appearance settings*; or while browsing, select *Options* > *Other options* > *Appearance settings*.

2. Select one of the following options:

   Text wrapping—Text on the web page continues on the next line if it cannot be shown on only one line. Select *On* to allow text wrapping or *Off* to prevent text wrapping.

   Font size—Select the size font you want to display.

   Show images—Select *Yes* to display pictures from the page or *No* to hide pictures. When pictures are displayed, pages load more slowly.

   Alerts—Select *Alert for unsec. conn.* > *Yes* to set the phone to alert when a secure connection changes to an insecure one during browsing. Select *Alert for unsec. items* > *Yes* to set the phone to alert when a secure page contains an insecure item. These alerts do not guarantee a secure connection. For more information, see Browser security on page 80.

   Character encoding—Select the character set that the phone uses for showing browser pages that do not include that information or to select UTF-8 encoding when sending a Web address to a compatible phone.

Cookies

A cookie is data that a site saves in your phone browser cache memory. The data may be your user information or your browsing preferences. Cookies are saved until you clear the cache memory. See The cache memory on page 78 for more information.

Allow or reject

1. In the standby mode, select *Menu* > *Web* > *Settings* > *Security settings* > *Cookies*; or while browsing, select *Options* > *Other options* > *Security* > *Cookie settings*.

2. Select *Allow* to allow the phone to receive cookies or *Reject* to prevent the phone from receiving cookies.

■ Bookmarks

You can save page addresses as bookmarks in the phone. This feature is network-dependent. Contact your service provider for more information. Your phone 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.

Save

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

2. Scroll to the bookmark you want to use, and press *Select* to make a connection to the page associated with the bookmark; or select *Options* to view the title and the address of the selected bookmark, edit or delete the selected bookmark, or send it directly to another phone as a bookmark, or as a text message, or create a new bookmark.

Receive

When you receive a bookmark, *1 bookmark received* is displayed.

1. Select *Show* to view the bookmark, or *Exit* > *OK* to discard it immediately.

2. Select *Save* to save it to the bookmark list, or select *Options* > *View* to see the details or *Delete* to discard it.

■ Downloads (network service)

You can download more tones, graphics, videos, or themes to your phone.

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

Select *Menu* > *Web* > *Download links* and one of the following options, *Tone downloads*, *Graphic downloads*, *Video downloads*, or *Theme downloads*.

■ The 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 are stored in the cache.

- To empty the cache while browsing, select *Options* > *Other options* > *Clear the cache*.

- To empty the cache in the standby mode, select *Menu* > *Web* > *Clear the cache*.

■ Service inbox (network service)

This feature allows you to receive service messages (notifications) from your service provider. Notifications may be about new e-mail messages, changes in stock prices, or news headlines.

Access

From standby mode

1. Select *Show* to view a received service message.

2. If you want to view the message later, select *Exit*.

   The service message is moved to the *Service inbox*.

3. To view the message later, select *Menu* > *Web* > *Service inbox*.

While browsing

1. To access the *Service inbox* while browsing, select *Options* > *Other options* > *Service inbox*.

2. Scroll to the message that you want, select *Retrieve* to activate the browser, and download the marked content; or select *Options* > *Details* to display detailed information on the service message.

3. Select *Options* > *Delete* to delete the message.

Settings

Select *Menu* > *Web* > *Settings* > *Service inbox settings* and one of the following options:

Service messages—Select *On* to set the phone to receive service messages.

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

Automatic conn.—Select *On* (make sure the phone is set to receive service messages) to allow the phone to automatically activate the browser from standby mode when it has received a service message. If you select *Off*, the phone

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will activate the browser only after you have selected *Retrieve* when the phone has received a service message.

■ Browser security

Security features may be required for some services, such as banking services or online shopping. For such connections, you need 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 can contain certificates, as well as private and public keys. The purpose of the security module is to improve security services for applications requiring a browser connection. The security module allows you to use a digital signature. The certificates are saved in the security module by the service provider. For more information about security codes (access codes), see Access codes on page 21.

Select *Menu* > *Web* > *Settings* > *Security settings* > *Security module settings* and one of the following options:

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

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

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

Change signing PIN—Select the signing PIN that you want to change. Enter the current PIN code; then enter the new code twice.

Certificates

There are three kinds of certificates: server certificates, authority certificates, and user certificates.

- The phone uses a server certificate to create a connection with improved security to the content server. The phone receives the server certificate from the service provider before the connection is established and its validity is checked using the authority certificates saved in the phone. Server certificates are not saved.

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The security icon ![icon] 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.

- Authority certificates are used by some services, such as banking services, for checking the validity of other certificates. Authority certificates can either be saved in the security module by the service provider, or they can be downloaded from the network, if the service supports the use of authority certificates.

- User certificates are issued to users by a certifying authority. User certificates are required to create a digital signature and they associate the user with a specific private key in a security module.

Important: Note that 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 is supposed to be valid, check that the current date and time in your phone 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.

Digital signature

You can make digital signatures with your phone, if your SIM card has a security module. The signature can be traced back to you by both the private key on the security module and the user certificate that was used to perform the signature. 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:

1. Select a link on a page, such as, the title of the book that you want to buy and its price.

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The text to sign (possibly including amount, date, etc.) is displayed.

2. Verify 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.

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

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

4. Select the user certificate you want to use.

5. Enter the signing PIN (see Access codes on page 21), and select *OK*.

The digital signature icon disappears and the service may display a confirmation of your purchase.

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14. SIM services

In addition to the functions available on the phone, your SIM card may provide additional services that you can access in this menu, which is shown only if it is supported by your SIM card. The name and contents of the menu depend on the SIM card.

For availability, rates and information on using SIM services, contact your service provider.

Depending on the service provider, you can set the phone to show you the confirmation messages sent between your phone and the network. You can do this when you are using the SIM services by selecting the option *Yes* in the submenu *Confirm SIM actions* of *Phone settings*.

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

15. Number entry

This function allows you make a call or perform other tasks to the number you have entered.

1. Select *Menu* > *Number entry*, and enter a number.

2. Select *Options* and one of the following:

    Save—Allows you to save the number and name to *Contacts*.

    Move cursor—Allows you to change to cursor mode, which enables you to move the cursor to the place you want in the number.

    Add to contact—Allows you to add the number to a contact in *Contacts*.

    Send message—Allows you to create and send a message to the number.

    Call—Allows you to make a call to the number.

16. Computer connectivity

■ Nokia PC suite

Nokia PC Suite software is available for the Nokia 7280 phone. Nokia PC Suite is a collection of powerful tools that you can use to manage your phone features and data. Each component is a separate program that includes online helps. Nokia PC Suite software, installation instructions, and other documentation is provided free of charge and can be downloaded from the software downloads of the Nokia web site: **www.nokiausa.com**.

■ Nokia Collector

Nokia Collector is an Apple Mac application. It allows you to transfer images, videos, and other files from your Nokia 7280 phone to and from your Mac computer. Nokia Collector works with almost all types of files. Only applications and multi-file packages are not supported. Nokia Collector software and user guide are provided on the CD-ROM supplied with your phone.

■ GPRS, HSCSD and CSD (network service)

With your phone you can use the GPRS, HSCSD (High Speed Circuit Switched Data) and CSD (Circuit Switched Data, *GSM data*) data services.

For availability and subscription to data services, contact your 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 the data transfer.

See GPRS modem settings on page 55.

■ Data communication applications

For information on using a data communication application, refer to the documentation provided with it.

It is not recommended to make or answer phone calls during a computer connection, as it might disrupt the operation. For better performance during data calls, place the phone on a stationary surface with the spinner facing downward. Do not move the phone by holding it in your hand during a data call.

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17. Enhancements

If you want to enhance phone functionality, a range of enhancements is available for you. You can select any of these items to help accommodate your specific communication needs. For availability of these and other enhancements, contact your dealer. Protective carrying cases and straps for your Nokia 7280 mobile phone are available for purchase and can be located at **www.nokiausa.com**.

Check the model number of any charger before use with this device. This device is intended for use when supplied with power from AC-1 or ACP-12.

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.

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

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.

■ Power

- Standard 700 mAh Li-Ion Internal Fixed Battery (BL-8N)

- Travel Charger (ACP-12)

- Retractable Charger (AC-1)

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■ Audio

- Dual Mono Headset (HS-14)
- Wireless Image Headset (HS-13W)
- Headset (HDC-5)
- Boom Headset (HDB-5)
- Retractable Headset (HDC-10)
- Loopset (LPS-3)

■ Imaging and lifestyle

- Image Viewer (SU-2)
- Image Frame (SU-4)

■ Car

- Wireless Car Kit (CK1-W)
- Advanced Car Kit (CK-7W)

18. Reference information

■ 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. The battery should only be replaced by a qualified service technician. When the talk and standby times are noticeably shorter than normal, buy a new battery. Use only Nokia approved batteries, and recharge your battery only with Nokia approved chargers designated for this device.Unplug the charger from the electrical plug and the device when not in use. Do not leave the battery connected to a charger. Overcharging may shorten its lifetime. If left unused, a fully charged battery will lose its charge over time. Temperature extremes can affect the ability of your battery to charge.

Use the battery only for its intended purpose. Never use any charger or battery that is damaged.Do not short-circuit the battery. Accidental short-circuiting can occur when a metallic object such as a coin, clip, or pen causes direct connection of the positive (+) and negative (-) terminals of the battery. (These look like metal strips on the battery.) This might happen, for example, when you carry a spare battery in your pocket or purse. Short-circuiting the terminals may damage the battery or the connecting object.Leaving the battery in hot or cold places, such as in a closed car in summer or winter conditions, will reduce the capacity and lifetime of the battery. Always try to keep the battery between 59°F and 77°F (15°C and 25°C). A device with a hot or cold battery may not work temporarily, even when the battery is fully charged. Battery performance is particularly limited in temperatures well below freezing.Do not dispose of batteries in a fire! Dispose of batteries according to local regulations. Please recycle when possible. Do not dispose as household waste.

■ Additional safety information

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 5/8 inch (1.5 cm) away from the body. When a carry case, belt clip, or holder is used for body-worn operation, it should not contain metal and should position the device at least 5/8 inch (1.5 cm) away from your body.In order 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.

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 phone in health care facilities when any regulations posted in these areas instruct you to do so. Hospitals or health care facilities may be using equipment that could be sensitive to external RF energy.

Pacemakers

Pacemaker manufacturers recommend that a minimum separation of 6 in (15.3 cm) 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. To minimize the potential for interference, persons with pacemakers should

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

- Not carry the device in a breast pocket

- Hold the device to the ear opposite the pacemaker

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

Hearing aids

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

Vehicles

RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles such as electronic fuel injection systems, electronic antiskid (antilock) braking systems, electronic speed control systems, air bag systems. For more information, check with the manufacturer or its representative of your vehicle or any equipment that has been added.Only qualified personnel should service the device, or install the device in a vehicle. Faulty installation or service may be dangerous and may invalidate any warranty that may apply to the device. Check regularly that all wireless device equipment in your vehicle is mounted and operating properly. Do not store or carry flammable liquids, gases, or explosive materials in the same compartment as the device, its parts, or enhancements. For vehicles equipped with an air bag, remember that an air bags inflate with great force. Do not place objects, including installed or portable wireless equipment in the area over the air bag or in the air bag deployment area. If in-vehicle wireless equipment is improperly installed and the air bag inflates, serious injury could result.

Potentially explosive environments

Switch off your device when in any area with a potentially explosive atmosphere and obey all signs and instructions. Potentially explosive atmospheres include areas where you would normally be advised to turn off your vehicle engine. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death. Switch off the device at refuelling points such as near gas pumps at service stations. Observe restrictions on the use of radio equipment in fuel depots, storage, and distribution areas, chemical plants or where blasting operations are in progress. Areas with a potentially explosive atmosphere are 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.FCC regulations prohibit using your wireless device while in the air. The use of wireless telephones in an aircraft may be dangerous to the operation of the aircraft, disrupt the wireless telephone network, and may be illegal.Failure to observe these instructions may lead to suspension or denial of telephone services to the offender, legal action, or both.

■ Emergency calls

Important: Wireless phones, including this phone, 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 phone for essential communications like medical emergencies.

To make an emergency call:

1. If the phone 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 phone.

2. Press the **End** key as many times as needed to clear the display and ready the phone for calls.

3. Press and hold the **Middle selection** key in the standby mode, and enter the official emergency number for your present location. Emergency numbers vary by location. To enter the emergency number, scroll to the numeric character you want in the character bar, and press *Select*. Repeat this for each numeric character of the emergency number. If you enter an incorrect character, select *Clear* to delete it.

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. When making an emergency call, give all the necessary information as accurately as possible. Your wireless phone may be the only means of communication at the scene of an accident. Do not end the call until given permission to do so.

■ Certification Information (SAR)

THE NOKIA 7280 DEVICE MEETS INTERNATIONAL GUIDELINES FOR EXPOSURE TO RADIO WAVES

Your mobile device is a radio transmitter and receiver. It is designed and manufactured not to exceed the limits for exposure to radio frequency (RF) energy recommended by international guidelines (ICNIRP). These limits establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards and guidelines include a substantial safety margin designed to assure the safety of

the public, regardless of age and health and to account for any variations in measurements.

The exposure guidelines for mobile devices employ a unit of measurement known as the Specific Absorption Rate or SAR. The SAR limit stated in the international guidelines is 2.0 watts/kilogram (W/kg) averaged over ten grams of tissue. Tests for SAR are conducted using standard operating positions with the device transmitting at its highest certified power level in all tested frequency bands. The actual SAR level of an operating device can be well below the maximum value because the device is designed to use only the power required to reach the network. That amount changes depending on a number of factors such as how close you are to a network base station. The highest SAR value when tested according to international testing procedures for use at the ear for device type RM-14 is 0.83 W/kg. Your phone's device type is listed on the label, which is found after you remove the quick slide on your phone.

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

USA and Canada: The SAR limit of USA (FCC) and Canada (IC) is 1.6 W/kg averaged over one gram of tissue. Device type RM-14 has also been tested against this SAR limit. The highest SAR value reported under this standard during product certification for use at the ear is 0.71 W/kg and when properly worn on the body is 0.75 W/kg. Information about this device can be found on the FCC's website at **http://www.fcc.gov/oet/fccid** by searching the equipment authorization system using FCC ID: QTKRM-14.

■ Battery information

This section provides information about battery charging times with the Retractable Charger (AC-1), talk-times, and standby times. Be aware that the information in this section is subject to change. For more information, contact your service provider.

Charging time

The following charging time is approximate with the BL-8N 700 mAh Li-Ion internal fixed battery:
Retractable Charger (AC–1): up to 1 hour, 30 minutes

Talk and standby times

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

Talk time: up to 3 hours
Standby time: up to 240 hours

■ Nokia One-Year Limited Warranty

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

1. The limited warranty for the Product extends for ONE (1) year beginning on the date of the purchase of the Product. This one year period is extended by each whole day that the Product is out of your possession for repair under this warranty.

2. The limited warranty extends only to the original purchaser ("Consumer") of the Product and is not assignable or transferable to any subsequent purchaser/end-user.

3. The limited warranty extends only to Consumers who purchase the Product in the United States of America.

4. During the limited warranty period, Nokia will repair, or replace, at Nokia's sole option, any defective parts, or any parts that will not properly operate for their intended use with new or refurbished replacement items if such repair or replacement is needed because of product malfunction or failure during normal usage. No charge will be made to the Consumer for any such parts. Nokia will also pay for the labor charges incurred by Nokia in repairing or replacing the defective parts. The limited warranty does not cover defects in appearance, cosmetic, decorative or structural items, including framing, and any non-operative parts. Nokia's limit of liability under the limited warranty shall be the actual cash value of the Product at the time the Consumer returns the Product for repair, determined by the price paid by the Consumer for the Product less a reasonable amount for usage. Nokia shall not be liable for any other losses or damages. These remedies are the Consumer's exclusive remedies for breach of warranty.

5. Upon request from Nokia, the Consumer must prove the date of the original purchase of the Product by a dated bill of sale or dated itemized receipt.

6. The Consumer shall bear the cost of shipping the Product to Nokia in Melbourne, Florida. Nokia shall bear the cost of shipping the Product back to the Consumer after the completion of service under this limited warranty.

7. The Consumer shall have no coverage or benefits under this limited warranty if any of the following conditions are applicable:

   a) The Product has been subjected to abnormal use, abnormal conditions, improper storage, exposure to moisture or dampness, unauthorized modifications, unauthorized connections, unauthorized repair, misuse, neglect, abuse, accident, alteration, improper installation, or other acts which are not the fault of Nokia, including damage caused by shipping.

   b) The Product has been damaged from external causes such as collision with an object, or from fire, flooding, sand, dirt, windstorm, lightning, earthquake or damage from exposure to weather conditions, an Act of God, or battery leakage, theft, blown fuse, or improper use of any electrical source, damage caused by computer or internet viruses, bugs, worms, Trojan Horses, cancelbots or damage caused by the connection to other products not recommended for interconnection by Nokia.

   c) Nokia was not advised in writing by the Consumer of the alleged defect or malfunction of the Product within fourteen (14) days after the expiration of the applicable limited warranty period.

   d) The Product serial number plate or the enhancement data code has been removed, defaced or altered.

   e) The defect or damage was caused by the defective function of the cellular system or by inadequate signal reception by the external antenna, or viruses or other software problems introduced into the Product.

8. Nokia does not warrant uninterrupted or error-free operation of the Product. If a problem develops during the limited warranty period, the Consumer shall take the following step-by-step procedure:

   a) The Consumer shall return the Product to the place of purchase for repair or replacement processing.

   b) If "a" is not convenient because of distance (more than 50 miles) or for other good cause, the Consumer shall ship the Product prepaid and

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insured to:
Nokia Inc., Attn: Repair Department
795 West Nasa Blvd.
Melbourne, FL 32901

c) The Consumer shall include a return address, daytime phone number and/ or fax number, complete description of the problem, proof of purchase and service agreement (if applicable). Expenses related to removing the Product from an installation are not covered under this limited warranty.

d) The Consumer will be billed for any parts or labor charges not covered by this limited warranty. The Consumer will be responsible for any expenses related to reinstallation of the Product.

e) Nokia will repair the Product under the limited warranty within 30 days after receipt of the Product. If Nokia cannot perform repairs covered under this limited warranty within 30 days, or after a reasonable number of attempts to repair the same defect, Nokia at its option, will provide a replacement Product or refund the purchase price of the Product less a reasonable amount for usage. In some states the Consumer may have the right to a loaner if the repair of the Product takes more than ten (10) days. Please contact the Customer Service Center at Nokia at the telephone number listed at the end of this warranty if you need a loaner and the repair of the Product has taken or is estimated to take more than ten (10) days.

f) If the Product is returned during the limited warranty period, but the problem with the Product is not covered under the terms and conditions of this limited warranty, the Consumer will be notified and given an estimate of the charges the Consumer must pay to have the Product repaired, with all shipping charges billed to the Consumer. If the estimate is refused, the Product will be returned freight collect. If the Product is returned after the expiration of the limited warranty period, Nokia's normal service policies shall apply and the Consumer will be responsible for all shipping charges.

9. You (the Consumer) understand that the product may consist of refurbished equipment that contains used components, some of which have been reprocessed. The used components comply with Product performance and reliability specifications.

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10. ANY IMPLIED WARRANTY OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE OR USE, SHALL BE LIMITED TO THE DURATION OF THE FOREGOING LIMITED WRITTEN WARRANTY. OTHERWISE, THE FOREGOING LIMITED WARRANTY IS THE CONSUMER'S SOLE AND EXCLUSIVE REMEDY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. NOKIA SHALL NOT BE LIABLE FOR SPECIAL, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOSS OF ANTICIPATED BENEFITS OR PROFITS, LOSS OF SAVINGS OR REVENUE, LOSS OF DATA, PUNITIVE DAMAGES, LOSS OF USE OF THE PRODUCT OR ANY ASSOCIATED EQUIPMENT, COST OF CAPITAL, COST OF ANY SUBSTITUTE EQUIPMENT OR FACILITIES, DOWNTIME, THE CLAIMS OF ANY THIRD PARTIES, INCLUDING CUSTOMERS, AND INJURY TO PROPERTY, RESULTING FROM THE PURCHASE OR USE OF THE PRODUCT OR ARISING FROM BREACH OF THE WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, STRICT TORT, OR ANY OTHER LEGAL OR EQUITABLE THEORY, EVEN IF NOKIA KNEW OF THE LIKELIHOOD OF SUCH DAMAGES. NOKIA SHALL NOT BE LIABLE FOR DELAY IN RENDERING SERVICE UNDER THE LIMITED WARRANTY, OR LOSS OF USE DURING THE PERIOD THAT THE PRODUCT IS BEING REPAIRED.

11. Some states do not allow limitation of how long an implied warranty lasts, so the one year warranty limitation may not apply to you (the Consumer). Some states do not allow the exclusion or limitation of incidental and consequential damages, so certain of the above limitations or exclusions may not apply to you (the Consumer). This limited warranty gives the Consumer specific legal rights and the Consumer may also have other rights which vary from state to state.

12. Nokia neither assumes nor authorizes any authorized service center or any other person or entity to assume for it any other obligation or liability beyond that which is expressly provided for in this limited warranty including the provider or seller of any extended warranty or service agreement.

13. This is the entire warranty between Nokia and the Consumer, and supersedes all prior and contemporaneous agreements or understandings, oral or written, relating to the Product, and no representation, promise or condition not contained herein shall modify these terms.

14. This limited warranty allocates the risk of failure of the Product between the Consumer and Nokia. The allocation is recognized by the Consumer and is reflected in the purchase price.

15. Any action or lawsuit for breach of warranty must be commenced within eighteen (18) months following purchase of the Product.

16. Questions concerning this limited warranty may be directed to:
Nokia Inc.
Attn: Customer Service
7725 Woodland Center Blvd., Ste. 150
Tampa, FL 33614
Telephone: 1-888-NOKIA-2U (1-888-665-4228)
Facsimile: (813) 249-9619
TTY/TDD Users Only: 1-800-24-NOKIA (1-800-246-6542)

17. The limited warranty period for Nokia supplied attachments and accessories is specifically defined within their own warranty cards and packaging.

■ Patent information

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

4868846	4945633	5001372	5053928	5083240	5101175
5124672	5151946	5152004	5173927	5212834	5230091
5241583	5266782	5271056	5311151	5317283	5331638
5335362	5341149	5353328	5371481	5378935	5384782
5390223	5392460	5396657	5400949	5408504	5416435
5430740	5442521	5444816	5446364	5446422	5477422
5479476	5442521	5444816	5446364	5446422	5477422
5479476	5487084	5526366	5534878	5548616	5551067
5553125	5557639	5565821	5566201	5570369	5581244
5594797	5600708	5606548	5613235	5625274	5640395
5664053	5675611	5677620	5692032	5697074	5699482

5701392	5722074	5729541	5760568	5787341	5794142
5797102	5802465	5805301	5809413	5819165	5821891
5822366	5827082	5835858	5835889	5839101	5842141
5844884	5845219	5850607	5857151	5859843	5862178
5870683	5884103	5884190	5889770	5898775	5898925
5903832	5903839	5907823	5912570	5914690	5914796
5917868	5920826	5926147	5926769	5929813	5930233
5946651	5953665	5956332	5956625	5956633	5960354
5960389	5963901	5966378	5977887	5983081	5987137
5987639	5991857	6005857	6006114	6009328	6011853
6011971	6014113	6014551	6014573	6025802	6026161
6028567	6031827	6035189	6035194	6038238	6043760
6047196	6049796	6050415	6054954	6054966	6055439
6060193	6069923	6072787	6073001	6079993	6081732
6084471	6084855	6084920	6084962	6088746	6094587
6097964	6105784	6112099	6115617	6118775	6119002
6119180	6121846	6122498	6128322	6128509	6130650
6133884	6137789	6138091	6140966	6144243	6144676
6148209	6151485	6151507	6163609	6164547	6167038
6167248	6167273	6170073	6171127	6178535	6182101
6184592	6185295	6185302	6185422	6188909	6195338
6199035	6201712	6201876	6202109	6219560	6223037
6223059	6223059	6240076	6249584	6259312	6262735
6266321	6266330	6269126	6271794	6272361	6282436
6285888	6292668	6295286	6307512	6308084	6311054
6314166	6317083	6324389	6324412	6333716	6347218

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 and enjoy your device for many years.

- Keep the device dry. Precipitation, humidity, and all types of liquids or moisture can contain minerals that will corrode electronic circuits.

- 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).

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.

Statements from other agencies

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

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Safety is the most important call you will ever make.

A Guide to Safe and Responsible Wireless Phone Use

Tens of millions of people in the U.S. today take advantage of the unique combination of convenience, safety and value delivered by the wireless telephone. Quite simply, the wireless phone gives people the powerful ability to communicate by voice—almost anywhere, anytime—with the boss, with a client, with the kids, with emergency personnel or even with the police. Each year, Americans make billions of calls from their wireless phones, and the numbers are rapidly growing.But an important responsibility accompanies those benefits, one that every wireless phone user must uphold. When driving a car, driving is your first responsibility. A wireless phone can be an invaluable tool, but good judgment must be exercised at all times while driving a motor vehicle—whether on the phone or not.The basic lessons are ones we all learned as teenagers. Driving requires alertness, caution and courtesy. It requires a heavy dose of basic common sense—keep your head up, keep your eyes on the road, check your mirrors frequently and watch out for other drivers. It requires obeying all traffic signs and signals and staying within the speed limit. It means using seatbelts and requiring other passengers to do the same. But with wireless phone use, driving safely means a little more. This brochure is a call to wireless phone users everywhere to make safety their first priority when behind the wheel of a car. Wireless telecommunications is keeping us in touch, simplifying our lives, protecting us in emergencies and providing opportunities to help others in need. When it comes to the use of wireless phones, safety is your most important call.

Wireless Phone "Safety Tips"

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

1. Get to know your wireless phone and its features such as speed dial and redial. Carefully read your instruction manual and learn to take advantage of

valuable features most phones offer, including automatic redial and memory. Also, work to memorize the phone keypad so you can use the speed dial function without taking your attention off the road.

2. When available, use a hands-free device. A number of hands-free wireless phone accessories are readily available today. Whether you choose an installed mounted device for your wireless phone or a speaker phone accessory, take advantage of these devices if available to you.

3. Position your wireless phone within easy reach. Make sure you place your wireless phone within easy reach and where you can grab it without removing your eyes from the road. If you get an incoming call at an inconvenient time, if possible, let your voice mail answer it for you.

4. Suspend conversations during hazardous driving conditions or situations. Let the person you are speaking with know you are driving; if necessary, suspend the call in heavy traffic or hazardous weather conditions. Rain, sleet, snow and ice can be hazardous, but so is heavy traffic. As a driver, your first responsibility is to pay attention to the road.

5. Do not take notes or look up phone numbers while driving. If you are reading an address book or business card, or writing a "to do" list while driving a car, you are not watching where you are going. It's common sense. Don't get caught in a dangerous situation because you are reading or writing and not paying attention to the road or nearby vehicles.

6. Dial sensibly and assess the traffic; if possible, place calls when you are not moving or before pulling into traffic. Try to plan your calls before you begin your trip or attempt to coincide your calls with times you may be stopped at a stop sign, red light or otherwise stationary. But if you need to dial while driving, follow this simple tip—dial only a few numbers, check the road and your mirrors, then continue.

7. Do not engage in stressful or emotional conversations that may be distracting. Stressful or emotional conversations and driving do not mix— they are distracting and even dangerous when you are behind the wheel of a car. Make people you are talking with aware you are driving and if necessary, suspend conversations which have the potential to divert your attention from the road.

8. Use your wireless phone to call for help. Your wireless phone is one of the greatest tools you can own to protect yourself and your family in dangerous situations—with your phone at your side, help is only three numbers away. Dial 9-1-1 or other local emergency number in the case of fire, traffic accident, road hazard or medical emergency. Remember, it is a free call on your wireless phone!

9. Use your wireless phone to help others in emergencies. Your wireless phone provides you a perfect opportunity to be a "Good Samaritan" in your community. If you see an auto accident, crime in progress or other serious emergency where lives are in danger, call 9-1-1 or other local emergency number, as you would want others to do for you.

10. Call roadside assistance or a special wireless nonemergency assistance number when necessary. Certain situations you encounter while driving may require attention, but are not urgent enough to merit a call for emergency services. But you still can use your wireless phone to lend a hand. If you see a broken-down vehicle posing no serious hazard, a broken traffic signal, a minor traffic accident where no one appears injured or a vehicle you know to be stolen, call roadside assistance or other special non-emergency wireless number.

Careless, distracted individuals and people driving irresponsibly represent a hazard to everyone on the road. Since 1984, the Cellular Telecommunications Industry Association and the wireless industry have conducted educational outreach to inform wireless phone users of their responsibilities as safe drivers and good citizens. As we approach a new century, more and more of us will take advantage of the benefits of wireless telephones. And, as we take to the roads, we all have a responsibility to drive safely.The wireless industry reminds you to use your phone safely when driving.For more information, please call 1-888-901-SAFE.
For updates: http://www.wow-com.com/consumer/issues/driving/articles.cfm?ID=85

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

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

Consumer Update on Wireless Phones

U.S. Food and Drug Administration

1. Do wireless phones pose a health hazard?

    The available scientific evidence does not show that any health problems are associated with using wireless phones. There is no proof, however, that wireless phones are absolutely safe. Wireless phones emit low levels of radiofrequency energy (RF) in the microwave range while being used. They also emit very low levels of RF when in the stand-by mode. Whereas high levels of RF can produce health effects (by heating tissue), exposure to low

level RF that does not produce heating effects causes no known adverse health effects. Many studies of low level RF exposures have not found any biological effects. Some studies have suggested that some biological effects may occur, but such findings have not been confirmed by additional research. In some cases, other researchers have had difficulty in reproducing those studies, or in determining the reasons for inconsistent results.

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

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

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

• Support needed research into possible biological effects of RF of the type emitted by wireless phones;

• Design wireless phones in a way that minimizes any RF exposure to the user that is not necessary for device function; and

• Cooperate in providing users of wireless phones with the best possible information on possible effects of wireless phone use on human health.

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

• National Institute for Occupational Safety and Health

• Environmental Protection Agency

• Federal Communications Commission

• Occupational Safety and Health Administration

• National Telecommunications and Information Administration

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

FDA shares regulatory responsibilities for wireless phones with the Federal Communications Commission (FCC). All phones that are sold in the United States must comply with FCC safety guidelines that limit RF exposure. FCC

relies on FDA and other health agencies for safety questions about wireless phones. FCC also regulates the base stations that the wireless phone networks rely upon. While these base stations operate at higher power than do the wireless phones themselves, the RF exposures that people get from these base stations are typically thousands of times lower than those they can get from wireless phones. Base stations are thus not the subject of the safety questions discussed in this document.

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

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

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

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

    Three large epidemiology studies have been published since December 2000. Between them, the studies investigated any possible association between the use of wireless phones and primary brain cancer, glioma, meningioma, or acoustic neuroma, tumors of the brain or salivary gland, leukemia, or other cancers. None of the studies demonstrated the existence of any harmful

health effects from wireless phone RF exposures. However, none of the studies can answer questions about long-term exposures, since the average period of phone use in these studies was around three years.

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

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

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

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

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

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

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

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

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

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

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

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

   If there is a risk from these products—and at this point we do not know that there is—it is probably very small. But if you are concerned about avoiding even potential risks, you can take a few simple steps to minimize your

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exposure to radiofrequency energy (RF). Since time is a key factor in how much exposure a person receives, reducing the amount of time spent using a wireless phone will reduce RF exposure.

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

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

10. What about children using wireless phones?

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

11. What about wireless phone interference with medical equipment?

Radiofrequency energy (RF) from wireless phones can interact with some electronic devices. For this reason, FDA helped develop a detailed test method to measure electromagnetic interference (EMI) of implanted cardiac pacemakers and defibrillators from wireless telephones. This test method is now part of a standard sponsored by the Association for the Advancement of Medical instrumentation (AAMI). The final draft, a joint effort by FDA, medical device manufacturers, and many other groups, was completed in late 2000. This standard will allow manufacturers to ensure that cardiac pacemakers and defibrillators are safe from wireless phone EMI. FDA has tested hearing aids for interference from handheld wireless phones and helped develop a voluntary standard sponsored by the Institute of Electrical and Electronic Engineers (IEEE). This standard specifies test methods and

performance requirements for hearing aids and wireless phones so that no interference occurs when a person uses a compatible phone and a accompanied hearing aid at the same time. This standard was approved by the IEEE in 2000.FDA continues to monitor the use of wireless phones for possible interactions with other medical devices. Should harmful interference be found to occur, FDA will conduct testing to assess the interference and work to resolve the problem.

12. Where can I find additional information?

For additional information, please refer to the following resources:

- FDA web page on wireless phones
  http://www.fda.gov/cdrh/phones/index.html

- Federal Communications Commission (FCC) RF Safety Program
  http://www.fcc.gov/oet/rfsafety

- International Commission on Non-Ionizing Radiation Protection
  http://www.icnirp.de

- World Health Organization (WHO) International EMF Project
  http://www.who.int/emf

- National Radiological Protection Board (UK)
  http://www.nrpb.org.uk/

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

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Para obtener un manual del usuario en español favor de llamar o enviar
un fax al teléfono 1–888–NOKIA–2U, fax 813-249-9619.

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