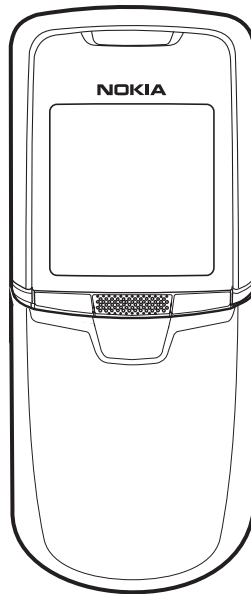# Nokia 8800 User Guide Draft

**LEGAL INFORMATION**

# CE 168

**DECLARATION OF CONFORMITY**

We, NOKIA CORPORATION declare under our sole responsibility that the product RM-13 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/.

**PART NO. 9238830, ISSUE NO. 1**

IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF
MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE MADE IN RELATION TO
THE ACCURACY AND RELIABILITY OR CONTENTS OF THIS DOCUMENT. NOKIA RESERVES THE
RIGHT TO REVISE THIS DOCUMENT OR WITHDRAW IT AT ANY TIME WITHOUT PRIOR NOTICE.

**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 device on when wireless phone use is prohibited or when it may cause interference or danger.

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

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

**SWITCH OFF IN HOSPITALS**
Follow any regulations or rules. Switch the phone off near medical equipment.

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

**SWITCH OFF WHEN REFUELLING**
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.

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

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

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

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

# ■ About your device

The wireless device described in this guide is approved for use on the EGSM 900, GSM 1800, and GSM 1900 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 on your device menu. Contact your service provider for more information.

## ■ Shared memory

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

# 1. Welcome

Congratulations on your purchase of the Nokia 8800 mobile phone. Since this is a product of superior design and craftsmanship, please handle your phone with special care. Besides the Nokia 8800 mobile phone's stainless steel covers and scratch resistant glass display, some its other features include a calendar, a clock, an alarm clock, a radio, a music player, and a built-in camera.

## ■ 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.nokiausa.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 provided on the phone label (1), which is on the back of the phone (under the battery). It contains the model and serial numbers, as well as other important information about your phone.
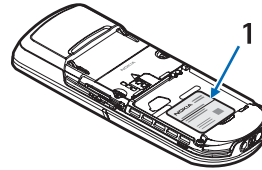


To help Nokia promptly answer your questions, please have the following information available before contacting the Nokia Customer Care Center:

• Your phone model number (8800)

• Type number (RM-13)

• International mobile equipment identity (IMEI)

- Your zip code

- The phone or enhancement in question

## ■ 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.

## ■ Configuration settings service

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

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

- To save the settings, select **Show** > **Save**. If the phone requests **Enter settings' PIN:**, enter the PIN code for the settings, and select **OK**. To receive the PIN code, contact the service provider who supplies the settings. If no settings are saved yet, these settings are saved and set as default configuration settings. Otherwise, the phone asks, **Activate saved configuration settings?**.

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

9

- To edit the settings, see "Configuration" on page 57.

## ■ Network support

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

# 2. Getting started

## ■ SIM card installation

Keep all SIM cards out of the reach of small children. For availability and information on using SIM card services, contact your SIM card vendor. This may be the service provider, network operator, or another vendor. Before installing the SIM card and removing the battery, always make sure that the phone is switched off and disconnected from any enhancement.

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

To install the SIM card:

1. Push the sideways release buttons to release the back cover of the phone.

2. Slide the back cover to remove it from the phone.

3. Remove the battery, as shown in the illustration.
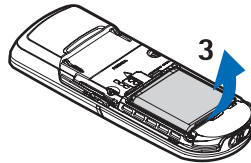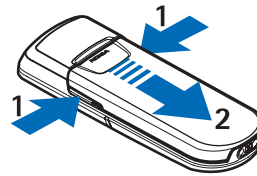
4. Insert the SIM card into the SIM card holder as shown. Make sure that the gold colored contact area on the SIM card is facing downwards.

11
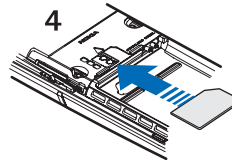
5.  Position the
    battery so the
    gold colored
    contacts match
    up with those on
    the phone. Insert
    the battery,
    contact end first
    into the battery slot. Snap the other end of the battery into place.
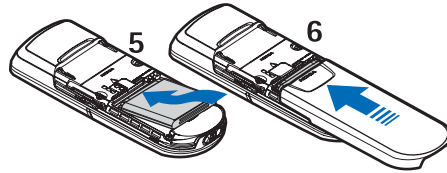
6.  Slide the back cover into place.

## ■ Charge the battery

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

This device is intended for use with the BL-5X battery. Always use original Nokia batteries. See "Nokia battery authentication guidelines" on page 92.

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

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

1.  Connect the charger to a standard wall outlet.

2.  Insert the charger plug into the round jack in the bottom of the phone. 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.
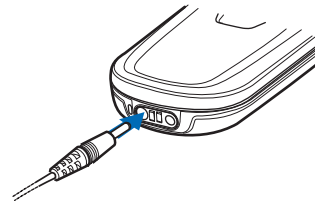
You can use the phone while the charger is connected. The charging time depends on the charger and the battery used. For example, charging a BL-5X

12

battery with the ACP-12 charger takes approximately 1 hour and 5 minutes while the phone is in the standby mode.

## ■ Turn the phone on and off

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

Press and hold the power key as shown. If the phone asks for a PIN, enter the code, and select **OK**.

When you turn on your phone for the first time, the phone is in standby mode (see "Standby mode" on page 16) and a query appears, asking for the configuration settings from your service provider (network service). Confirm or decline the query. See "Configuration settings service" on page 9.

## ■ Open the keypad

1. Hold the phone in one hand.

2. With the other hand, press your thumb on the part of the phone that is below the display screen.

3. Push the top part of the phone (slide) upwards, as shown in the illustration.

## ■ Normal operating position

Use the phone only in its normal operating position.

Your device has an internal antenna.

13
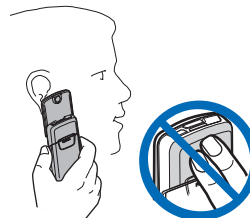
**Note:** As with any other radio transmitting device, do not touch the antenna unnecessarily when the device is switched on. Contact with the antenna affects call quality and may cause the device to operate at a higher power level than otherwise needed. Avoiding contact with the antenna area when operating the device optimizes the antenna performance and the battery life.

# 3. Your phone

## ■ Keys and parts

- Power key (1)

- Loudspeaker (2)

- Earpiece (3)

- Left selection key (4)

  Right selection key (5)

  Middle selection key (6)

  The function of the selection key depends on the guiding text shown on the display above the key.

- 4-way scroll key (7) that allows you to scroll up, down, left and right.

- Call key (8) dials a phone number and answers a call

- End key (9) ends an active call and allows you to exit from any function

- Battery cover release buttons (10)

- Microphone (11)

- Charger connector (12)

- Enhancements connector (13)

- Camera lens (14)

- Headset HS-15, rotating clip (15)

15
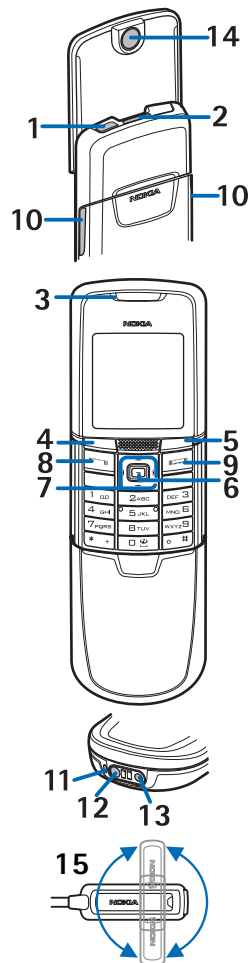
# ■ Standby mode

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 name of the wireless service provider (1) displays in the middle of the start screen.

- The signal strength indicator (2) shows the strength of the signal to your phone. The higher the bar, the stronger the signal.

- 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 left selection key (4) in the standby mode is **Go to**. Your most frequently used functions can be quickly accessed from the **Go to** menu.
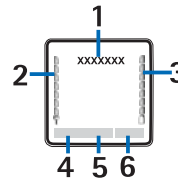
  To activate a function, select it.

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

  To rearrange the functions in your personal shortcut list, select **Options** > **Organize**. Scroll to the function you want, select **Move**, and scroll to where you want to move the function.

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

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

## Power saving screen saver

To save power, a digital clock screen saver overwrites the display when no function of the phone has been used for a certain period of time. Select **Menu** > **Settings** > **Display** > **Power saver** > **On** to activate the screen saver or press any key to deactivate it.

## ■ Indicators and icons

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

### Indicators

See "Standby mode" on page 16 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 several text or multimedia messages. |
| ⬷ | You have received one or several multimedia messages. |
| ➜☎ | The phone registered a missed call. |
| ⌐O | 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 in the top left of the display when the packet data connection mode Always online is selected and the packet data service is available. |
| ⟦G⟧ | Shown in the top left of the display when the packet data connection is established. |
| 🅶 | Shown in the top right of the display when the packet data connection is suspended (on hold); for example, if there is an incoming or outgoing call during the packet data connection. |
| 🅱 | Indicates an active Bluetooth wireless connection. |

# 4. Phone security

Your phone is equipped with different security features that allow you to avoid making accidental calls and prevent unauthorized use of your phone.

## ■ Keypad lock (keyguard)

The keyguard disables your keypad to prevent accidental key presses.

- To lock the keypad and the power key, close the slide and confirm Lock keypad? with Yes; or select Menu and press * within 3.5seconds.

- To unlock the keypad, open the slide; or select Unlock and press * within 1.5 seconds.

  If the Security keyguard is set to On, enter the security code if requested.

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

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

For information about Automatic keyguard and Security keyguard, see "Phone" on page 56.

## ■ Access codes

### Security code

The security code (5 to 10 digits) helps to protect your phone against unauthorized use. The preset code is 12345. To change the code, and to set the phone to request the code, see "Security" on page 58.

### PIN codes, module PIN, and signing PIN

The PIN (personal identification number) code and the UPIN (universal personal identification number) code (4 to 8 digits) help to protect your SIM card against unauthorized use. See "Security" on page 58.

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

The module PIN is required to access the information in the security module. See "Security module" on page 85.

The signing PIN is required for the digital signature. See "Digital signature" on page 87.

## PUK codes

The PUK (personal unblocking key) code and the UPUK (universal personal unblocking key) code (8 digits) is required to change a blocked PIN code and UPIN code, respectively. The PUK2 code (8 digits) is required to change a blocked PIN2 code.

## Call restrictions password

The call restrictions password (4 digits) is required when using the Call restrictions function. See "Security" on page 58.

## Wallet code

The wallet code (4 to 10 digits) is required to access the wallet services. For further information, see "Wallet" on page 71.

# 5. Call functions

## ■ Make a call

1. Enter the phone number, including the area code. To delete an incorrect character, select Clear.

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

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

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

### 1–touch dialing

Assign a phone number to one of the 1-touch dialing keys, 2 to 9. Call the number by one of the following ways:

• Press a 1-touch dialing key and then press the call key.

• If 1–touch dialing is set to On, press and hold a 1-touch dialing key until the call is started. See 1–touch dialing in "Call" on page 55.

## ■ Answer or reject a call

• Open the slide or press the call key to answer the call. To mute the ringing tone, select Silence.

• To reject an incoming call when the slide is open, press the end key.

If Forward if busy is activated in your voice is activated in your voice mailbox, the call is forwarded to your voice mail. If not, the call is rejected. If a compatible headset supplied with the headset key is connected to the phone, press the headset key to answer and end a call.

### Call waiting (network service)

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

To activate the Call waiting function, see "Call" on page 55.

# ■ Options during a call

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

For some of the following options, select Options during a call:

Mute or Unmute, Contacts, Menu, Record, Lock keypad, Audio enhancing, Loudspeaker or Handset, and the network services Hold or Unhold, Answer and Decline, New call, Touch tones (to send tone strings), Swap (to switch between the active call and the call on hold), Transfer calls (to connect a call on hold to an active call and disconnect yourself), Conference (to make a conference call that allows up to five persons to take part in a conference call), Add to conference, Private call (to discuss privately in a conference call), End call, and End all calls.

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

21

# 6. Phone menus

Phone features are grouped according to function and are accessed through the main menus of your phone. Each main menu contains submenus and lists from which you can select or view items and customize phone features. You can access these menus and submenus by using the scroll method.

Some menus may not be available, depending on your network. For more information, contact your service provider.

## ■ Menu views

Your phone may have two types of menu views: List and Grid.

In the List interface, images introduce every menu. Use the scroll up and scroll down keys to navigate through the menus. As you scroll through the menus, the menu number appears in the upper right corner of the display. Below the menu number is a scroll bar with a tab. The tab moves up or down as you scroll through the menus, providing a visual representation of your current position in the menu structure.

In the Grid interface, multiple menu icons appear on a single display. Use the four-way scroll key to navigate through the icons. The name of the menu appears at the top of the display and the icon for the selected menu is outlined.

To change the menu view, select Options > Main menu view > List or Grid.

## ■ Access a menu function

1. Select Menu and the menu you want.

2. If the menu contains submenus, select the one that you want.

3. If the selected menu contains further submenus, select the one that you want

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

# 7. 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 phone may display the words Message sent. This is an indication that the message has been sent by your device to the message centre 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 character limit for a single message. 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 any text, picture, or e-mail message, you need to save some message settings. See "Message settings" on page 36.

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

## Text entry

You can enter text while writing messages by using traditional or predictive text input. When using traditional text input, press a number key, **1** to **9**, repeatedly until the character you want appears. In predictive text input you can enter a letter with a single key press.

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

### Settings

To set the writing language to a language other than that selected (see Phone language on page 56), select Options > Writing language. Predictive text input is only available for the languages on the list.

To set the predictive text input option, select Options > Dictionary on, or to set traditional text input option select Options > Dictionary off.

### Predictive text input

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

1. Start writing a word, using the keys, **2** to **9**, and press each key only once for one letter. The word changes after each keystroke.

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

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

4. If the ? character is displayed after the word, the word you intended to write is not in the dictionary. To add the word to the dictionary, select Spell. The phone displays the entered letters. Enter the word (traditional text input is used), and select Save.

### Traditional text input

Press a number key, **1** to **9**, repeatedly until the character you want appears. Not all characters available under a number key are printed on the key. The characters available depend on the selected writing language. See "Settings" on page 24

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

The most common punctuation marks and special characters are available under the number key **1** and a space can be inserted by pressing **0**.

## Write and send

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

2. Enter a message. See "Text entry" on page 24.

3. To insert a template to the text message, select **Use template** and the template you want to insert.

4. To send the message, select **Send** > **Recently used**, **To phone number**, **To many**, or **To e-mail address** and enter a phone number or e-mail address.

5. To send a message using a predefined message profile, select **Via sending profile**

   For the sending profile, see "Text and SMS e-mail" on page 36.

## Read and reply

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

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

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

2. While reading a message, select **Options** and delete or forward the message, edit the message as a text message or an SMS e-mail, rename the message you are reading or move it to another folder, or view or extract message details. You can also copy text from the beginning of the message to your phone calendar as a reminder note. To save the picture in the **Templates** folder when reading a picture message, select **Save picture**.

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

4. To send the message to the displayed number, select **Send** > **OK**.

## Templates

To access the template list, select **Menu** > **Messages** > **Saved items** > **Text messages** > **Templates**.

## ■ 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, a picture, a calendar note, a business card, or a video clip. The phone supports multimedia messages that are up to 300KB in size. If the message is too large, the phone may not be able to receive it. Some networks allow text messages that include an Internet address where you can view the multimedia message.

Multimedia messaging supports the following formats:

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

- Sound: MP3, AAC, Scalable polyphonic MIDI (SP-MIDI), AMR audio and monophonic ringing tones

- Video clips: 3GP format with QCIF and SubQCIF image size and AMR, WB AMR, or ACC LC audio

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

## Write and send

To set the settings for multimedia messaging, see "Multimedia" on page 37. To check availability and to subscribe to the multimedia messaging service, contact your service provider.

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

2. Enter a message. See "Text entry" on page 24.

- To insert a file from the **Gallery**, select **Options** > **Insert** > **Image**, **Sound clip** or **Video clip** and the option you want.

  If you select **Options** >**Insert** > **New sound clip**, the **Recorder** opens, and you can start a new recording. When you have finished the recording, it is added to the message.

  If you select **Options** >**Insert** >**New image**, the **Camera** opens, and you can take a new photo to add to the message.

- To insert a business card or a calendar note in the message, select **Options** > **Insert** > **Business card** or **Calendar note**.

- Your phone supports multimedia messages that contain several pages (slides). Each slide can contain text, one image, a calendar note, a business card, and one sound clip. To insert a slide in the message, select **Options** > **Insert** > **Slide**.

  To open the slide you want (if the message contains several slides), select **Options** > **Previous slide** > **Next slide** or **Slide list**.

  To set the interval between the slides, select **Options** > **Slide timing**. To move the text component to the top or bottom of the message, select **Options** > **Place text first** or **Place text last**.

- The following options may also be available: **Delete** to delete an image, slide or sound clip from the message, **Clear text**, **Preview**, **Save message**. In **More options**, the following options may be available: **Insert contact**, **Insert number**, **Message details**, and **Edit subject**.

3. To send the message, select **Send** > **Recently used**, **To phone number**, **To e-mail address** or **To many**.

4. Enter the recipient's phone number or e-mail address, or search for it in **Contacts** > **Names**. Select **OK** and the message is moved to the **Outbox** folder for sending.

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

   If **Save sent messages** > **Yes** is selected, the sent message is saved in the **Sent items** folder. See "Multimedia" on page 37. When the message is sent, it is

27

not an indication that the message has been received at the intended destination.

## Read and reply

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

When your phone is receiving a multimedia message, the animated icon ⬅ is displayed. When the message has been received, ✉ and the text Multimedia message received are shown.

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

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

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

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

   Otherwise, select Play to listen to a sound clip or view a video clip attached to the message. To zoom in on an image, select Zoom. To view a business card or a calendar note, or to open a theme object, select Open. To open a streaming link, select Load.

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

   Select Options and some of the following options may be also available: Play presentation, View text, Open image, Open sound clip or Open video clip, Save image, Save sound clip, Save video clip, Details, Delete message, Reply, Reply to all, Forward to no., Forward to e-mail or Forward to many, Edit, and Message details.

## Memory full

When you have a new multimedia message waiting and the memory for the messages is full, ✉ blinks and Multimedia memory full. View waiting

28

message. is shown. To view the waiting message, select Show. To save the message, select Save. To delete old messages, select the folder and the message you want to delete.

To discard the waiting message, select Exit > Yes. If you select No, you can view the message.

## Folders

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

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

If you have selected Message settings > Text messages >Save sent messages > Yes > Message settings > Multimedia msgs.> Save sent messages > Yes, the sent messages are saved in the Sent items folder.

To save the text message that you are writing and wish to send later in the Saved items folder, select Options > Save message > Saved text msgs. For multimedia messages, select the option Save message. ✉ indicates unsent messages.

To organize your text messages, you can move some of them to My folders, or add new folders for your messages. Select Messages > Saved items > Text messages > My folders.

To add a folder, select Options > Add folder. If you have not saved any folders, select Add.

To delete or rename a folder, scroll to the folder you want, and select Options > Delete folder or Rename folder.

## ■ Instant messaging (network service)

You can take text messaging to the next level by experiencing instant messaging (IM) in a wireless environment. You can engage in instant messaging with friends and family, regardless of the mobile system or platform (like the Internet) they are using, as long as you all use the same instant messaging service.

Before you can start using instant messaging, you must first subscribe to your wireless service provider's text messaging service and register with the instant messaging service you want to use. You must also obtain a user name and password before you can use instant messaging. See "Register with an instant messaging service" on page 30 for more information.

M e s s a g e s

**Note:** Depending on both your IM service provider and your wireless service provider, you may not have access to all of the features described in this guide.

To set the required settings for the instant messaging service, see Connect. settings in "Access" on page 30. The icons and texts on the display may vary, depending on the instant messaging service.

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

### Register with an instant messaging service

You can do this by registering over the Internet with the IM service provider you have selected to use. During the registration process, you will have the opportunity to create the user name and password of your choice. For more information about signing up for instant messaging services, contact your wireless service provider.

### Access

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

The following options are shown: Login to connect to the instant messaging service, Saved conversations to view, erase or rename the instant messages conversations that you have saved during the instant messages session, or Connect. settings to edit the settings needed for messaging and presence connection.

### Connect

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

To disconnect from the instant messaging service, select Logout.

### Sessions

Connect to the instant messaging service and select one of the following

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

- indicates a new group message

- indicates a read group message

- indicates a new instant message

- indicates a read instant message

- indicates an invitation

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

IM contacts includes the contacts that you have added. Scroll to the contact with whom you would like to chat and select Chat or Open if a new contact is shown in the list. To add contacts see "IM contacts" on page 32.

indicates the online and the offline contacts in the phone contacts memory. indicates a blocked contact. indicates a contact that has been sent a new message.

Groups > Public groups. The list of bookmarks to public groups provided by the service provider is displayed. To start a instant messaging session with a group, scroll to a group, and select Join. Enter the screen name that you want to use in the conversation. When you have successfully joined the group conversation, you can start a group conversation. To create a private group, see "Groups" on page 33.

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

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

## Accept or reject an invitation

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

### Read an instant message

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

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

### Participate in a conversation

Join or start an IM session by selecting Write. Write your message, and select Send or press the call key to send it. If you select Options, some of the following options are available: View conversation, Save contact, Group members, Block contact, and End conversation.

## Set your availability

You can determine if other users can tell whether you are available or not.

1. Connect to the instant messaging service.

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

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

   To allow only the contacts in your instant messaging contacts list to see you as being online, select Availability > Avail. for contacts.

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

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

## IM contacts

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

Scroll to a contact, and to start a conversation, select **Chat**, or select **Options** > **Contact info**, **Block contact** (or **Unblock contact**), **Add contact**, **Remove contact**, **Change list**, **Copy to server**, or **Availability alerts**.

## Block or unblock messages

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

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

## Groups

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

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

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

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

## ■ E-mail application

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

33

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

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

- For the settings required for e-mail, contact your e-mail service provider. You may receive the e-mail configuration settings as a configuration message. See "Configuration settings service" on page 9. You can also enter the settings manually. See "Configuration" on page 57.

  To activate the e-mail settings, select **Menu** > **Messages** > **Message settings** > **E-mail messages**. See "E-mail" on page 37.

This application does not support keypad tones.

## Write and send

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

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

3. To attach a file to the e-mail, select **Options** > **Attach** and the file you want from the **Gallery**.

4. Select **Send** > **Send now**.

## Download

1. To download e-mail messages that have been sent to your e-mail account, select **Menu** > **Messages** > **E-mail** > **Retrieve**.

2. To download new e-mail messages and to send e-mails that have been saved in the **Outbox** folder, select **Menu** > **Messages** > **E-mail** > **Options** > **Retrieve and send**.

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

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

34

## Read and reply

Select **Menu** > **Messages** > **E-mail** > **Inbox** and **Options** to view the available options.

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

## Inbox and other folders

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

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

## Delete messages

1. Select **Menu** > **Messages** > **E-mail** > **Options** > **Manage folder** and the folder you want.

2. Select the messages that you want to delete and **Options** > **Delete**.

Deleting an e-mail from your phone does not delete it from the e-mail server. To set the phone to delete the e-mail from the e-mail server, select **Menu** > **Messages** > **E-mail** > **Options** > **Extra settings** > **Leave c. on server** > **Delete retr. msgs**.

## ■ 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.

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

If supported by the network, ▣ shows new voice messages. Select **Listen** to call your voice mailbox number.

## ■ Info messages (network service)

With the 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.

Select Menu > Messages > Service commands.

## ■ Delete all messages

1. Select Menu > Messages > Delete messages, the folder from which you want to delete the messages, and Yes.

2.  If the folder contains unread messages, select Yes.

## ■ Message settings

### Text and SMS e-mail

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

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 options, which may be available:

Message center number (delivered from your service provider), Messages sent via, Message validity, Default recipient number (text messages) or E-mail server (e-mail), Delivery reports, Use packet data, Reply via same center (network service), and Rename sending profile.

Select Save sent messages >Yes to set the phone to save the sent text messages in the Sent items folder.

## Multimedia

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

Select Menu > Messages > Message settings > Multimedia msgs. and one of the following options:

- Save sent messages > Yes to set the phone to save sent multimedia messages in the Sent items folder.

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

- Scale image down to define the image size when you insert an image to a multimedia message.

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

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

- Incoming multimedia messages. To allow the reception of multimedia messages automatically, manually after being prompted, or to reject the reception, select Retrieve, Retrieve manually, or Reject, respectively.

- Configuration settings > Configuration. Only the configurations that support multimedia messaging are shown. Select a service provider, Default, or Personal config. for multimedia messaging.

  Select Account and a multimedia messaging service account contained in the active configuration settings.

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

## E-mail

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

You may receive the configuration settings for the e-mail application as a configuration message. See "Configuration settings service" on page 9. You can also enter the settings manually. See "Configuration" on page 57.

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

- **Configuration**. Select the set that you would like to activate.

- **Account**. Select an account provided by the service provider.

- **My name**. Enter your name or nickname.

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

- **Include signature**. You can define a signature that is automatically added to the end of your e-mail when you write your message.

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

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

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

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

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

- **Incoming mail settings**

  If you selected **POP3** as the incoming server type, the following options are shown: **Retrieve e-mails**, **POP3 user name**, **POP3 password**, and **Display terminal window**.

  If you selected **IMAP4** as the incoming server type, the following options are shown: **Retrieve e-mails**, **Retrieval method**, **IMAP4 user name**, **IMAP4 password**, and **Display terminal window**.

## Other settings

To select other settings for messages, select **Menu** > **Messages** > **Message settings** > **Other settings**.

- To change the font size for reading and writing messages, select **Font size**.

- To set the phone to replace character-based smileys into graphical ones, select **Graphical smileys** > **Yes**.

## Message counter

The message counter gives you information on how many text messages have been sent and received. You can view the amount of sent and received messages, view details about the messages and reset the counter. To access the message counter, select Menu > Messages > Message counter.

# 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. Names and numbers saved in the SIM card memory, are indicated by [icon].

## ■ Search

Select **Menu** > **Contacts** > **Names** > **Options** > **Find** and scroll though the list of contacts or enter the first letter of the name you are trying to find.

## ■ Save names and phone numbers

Names and numbers are saved in the used memory.

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

2. Enter the name and the phone number.

## ■ Save numbers, items, or an image

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

The first number you save is automatically set as the default number, and it is indicated with a frame around the number type indicator (for example, [icon]). When you select a name, the default number is used unless you select another number.

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

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

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

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

5. To search for an ID from the server of your service provider (if you have connected to the presence service), select **User ID** > **Search**. See "My presence (network service)" on page 42. If only one ID is found, it is

Contacts

automatically saved. Otherwise, to save the ID, select **Options** > **Save**. To enter the ID, select **Enter ID manually**.

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

7. Enter the number or text item; to save it, select **OK**.

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

## ■ Copy a contact

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

## ■ Edit contact details

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

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

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

## ■ Delete contacts or details

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

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

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

41

## ■ Business cards

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

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

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

## ■ My presence (network service)

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

Before you can use presence, you must subscribe to the service. To check the availability and costs, and to subscribe to the service, contact your network operator or service provider, from whom you also receive your unique ID, password, and the settings for the service. See "Configuration" on page 57.

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

Select Menu > Contacts > My presence and one of the following options:

- Connect to 'My presence' service or Disconnect from service to connect to or disconnect from the service.

- View my presence to view the status in Private presence and Public presence.

- Edit my presence to change your presence status. Select My availability, My presence message, My presence logo, or Show to.

- My viewers > Current viewers, Private list, or Blocked list.

- Settings > Show current presence in idle, Synchronize with profiles, Connection type, or Presence settings.

42

# ■ Subscribed names

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

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

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

## Add contacts

1. Select Menu > Contacts > Subscribed names.

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

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

## View

To view the presence information, see "Search" on page 40.

1. Select Menu > Contacts > Subscribed names.

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

   ▯ , ▯ or ▮ indicate that the person is either available, discreet or not available.

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

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

## Unsubcribe

To unsubscribe a name, select Menu > Contacts > Subscribed names > Options > Unsubscribe.

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

43

## ■ Settings

Select Menu > Contacts > Settings, and select either Memory in use to select SIM card or phone memory for your contacts. To recall names and number from both memories, select Phone and SIM. In that case, the names and numbers will be saved in the phone memory. To select how the names and numbers in contacts are displayed, select Contacts view. To view the free and used memory capacity, select Memory status.

## ■ Groups

Select Menu > Contacts > Groups to arrange the names and phone numbers saved in the memory into caller groups with a different ringing tone and a group image.

## ■ 1-touch dialing

To assign a number to a 1-touch dialing key, select Menu > Contacts > 1-touch dialing, and scroll to the 1-touch dialing number that you want.

Select Assign, or if a number has already been assigned to the key, select Options > Change. Select Find and the name first and then the number you want to assign. If the 1-touch dialing function is off, the phone asks whether you want to activate it.

To make a call using 1-touch dialing, see "1-touch dialing" on page 20.

## ■ Voice dialing

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

Before using voice tags, note that:

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

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

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

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

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

## Add and manager voice tags

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

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

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

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

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

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

## Make a call using a voice tag

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

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

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

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

## ■ Info, service and my numbers

Select Menu > Contacts and one of the following functions, which may be available:

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

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

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

# 9. Call log

The phone registers the phone numbers of identified 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.

## ■ Recent calls list

When you select Options in the Missed calls, Received calls, Dialed numbers, or Message Recipients menu, you can view the time of the call; edit, view or call the registered phone number; add it to the memory; or delete it from the list. You can also send a text message. To delete the recent calls lists, select Delete recent call lists.

## ■ Counters and timers

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

Some timers may be reset during service or software upgrades.

Select Menu > Call log > Call timers, Packet data counter, or Packet data conn. timer for approximate information on your recent communications.

## ■ Positioning information

The network may send you a location request. You can ensure that the network will deliver location information of your phone only if you approve it (network service). Contact your service provider to subscribe and to agree upon the delivery of location information. Some networks allow you to request the position of the phone (network service).

To accept or reject the location request, select Accept or Reject. If you miss the request, the phone automatically accepts or rejects it according to what you have agreed with your service provider. The phone displays 1 missed position request. To view the missed location request, select Show.

47

Call log

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

# 10. 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, configuration settings, security settings, and to restore factory settings.

## ■ Profiles

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

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

- To activate the selected profile, select **Activate**.

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

- To personalize the profile, select **Customize**, and select the setting you want to change: then, make the changes.

  To change your presence status information, select **My presence** > **My availability**, or **My presence message**. The **My presence** menu is available if you set **Synchronize with profiles** to **On**. See "My presence (network service)" on page 42.

## ■ 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**.

Select **Menu** > **Settings** > **Themes** and one of the following options:

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

- Theme downloads to open a list of links to download more themes. See "Downloads (network service)" on page 84.

## ■ Tones

You can change the settings of the selected active profile.

Select Menu > Settings > Tones. Select and change Incoming call alert, Ringing tone, Ringing volume, Vibrating alert, Message alert tone, Instant message alert tone, Keypad tones, and Warning tones. You can find the same settings in the Profiles menu. See "Profiles" on page 49.

To set the phone to ring only upon calls from phone numbers that belong to a selected caller group, select Alert for. Scroll to the caller group you want or All calls and select Mark.

To download more tones, select Tone downloads.

## ■ Display

Select Menu > Settings > Display and one of the following options:

- Wallpaper > Select wallpaper or Select slide set, and an image or a slide from the Gallery to set your phone to display it when the phone is in standby mode. To activate the wallpaper, select On.

- Screen saver. To choose a screen saver from the Gallery, select Screen savers > Image, Slide set, Video clip, Analog clock or Digital clock. To enter the time after which the screen saver is activated, select Time-out. To activate the screen saver, select On.

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

- Color schemes to 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.

- Idle state font color to select the color for the texts on the display in the standby mode.

- Operator logo to set your phone to display or hide the operator logo.

## ■ Time and date

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

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

- **Date** to set the phone to show the date in the standby mode, set the date, and select the date format and date separator.

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

## ■ My shortcuts

You can set your most frequently used functions to be quickly accessed through the **My shortcuts** feature.

### Right selection key

To set a specific function (from a predefined list) to the right selection key, select **Menu** > **Settings** > **My shortcuts** > **Right selection key**. This function can be used only if it is supported by your service provider.

### Navigation key

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

### Voice tags

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

## ■ Connectivity

You can connect your phone to compatible devices by using Bluetooth wireless technology. You can also define the settings for packet data dial-up connections.

## Bluetooth wireless technology

This device is compliant with Bluetooth Specification 1.2 supporting the
following profiles: Hands-free, stereo headset, object push profile, file transfer
profile, dial-up networking profile, SIM access profile, service discovery profile,
generic access profile, serial port profile, generic access exchange profile,
advanced audio distribution profile, and audio video remote control profile. To
ensure interoperability between other devices supporting Bluetooth technology,
use Nokia approved enhancements for this model. Check with the manufacturers
of other devices to determine their compatibility with this device.

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

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

Bluetooth technology allows you to connect the phone to a compatible
Bluetooth device within approximately 33 feet (10 meters). Since devices using
Bluetooth technology communicate using radio waves, your phone and the other
devices do not need to be in direct line-of sight, although the connection can be
subject to interference from obstructions, such as walls, or from other electronic
devices.

To set up a Bluetooth connection, do the following:

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

2. To activate or deactivate the Bluetooth function, select **Bluetooth** > **On** or
   **Off**.  indicates an active Bluetooth connection.

3. To search for compatible Bluetooth audio devices, select **Search for audio
   enhancements**. Select the device that you want to connect to the phone.

   To search for any Bluetooth device in range, select **Paired devices**. 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) the device to
   your phone. You must only give this passcode when you connect to the device
   for the first time. Your phone connects to the device, and you can start data
   transfer.

### Settings
You should only accept Bluetooth transmissions from known and trusted sources.

52

For maximum security, you should set your Bluetooth visibility to **Hidden**. To do this, select **Menu** > **Settings** > **Connectivity** > **Bluetooth** > **Bluetooth settings** > **My phone's visibility** or **My phone's name**

### Connection

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

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

## ■ Packet data (EGPRS) (network service)

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

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

To define how to use the service, select **Menu** > **Settings** > **Connectivity** > **Packet data** > **Packet data connection** and one of the following:

- **When needed** — to set the packet data registration and connection to established when an application using packet data needs it and closed when you end the application.

- **Always online** — to set the phone to automatically register to an packet data network when you switch the phone on. ⌷ is shown.

### Modem settings

You can connect the phone to a compatible computer by using Bluetooth wireless technology. The phone can be used as a modem to enable EGPRS connectivity from the computer.

To define the settings for connections from the PC, select **Menu** > **Settings** > **Connectivity** > **Packet data** > **Packet data settings** > **Active access point**, activate the access point you want to use, and select **Edit active access point**. Select **Alias for access point**, and enter a nickname for the currently selected

53

access point. Select **Packet data access point**, and enter the access point name (APN) to establish a connection to an EGPRS network.

You can also set the dial-up service settings (access point name) on the computer, by using the Nokia Modem Options software. See "Nokia PC Suite" on page 89. If you have set the settings both on the PC and your phone, the PC settings are used.

## Data transfer and synchronization

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

### Partner list

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

To add a new partner to the list, such as a new device, select **Menu** > **Settings** > **Connectivity** > **Data transfer** >**Transfer contacts** > **Options** > **Add transfer contact** > **Phone sync** or **Phone copy**, and enter the settings according to the transfer type.

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

To delete a selected partner, select **Options** > **Delete**. You cannot delete **Server sync** and **Phone sync**.

## Data transfer with a compatible device

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

To start a data transfer, select **Menu** > **Settings** > **Connectivity** > **Data transfer** > **Transfer contacts**, and the transfer partner from the list, other than **Server sync** and **Phone sync**. Based upon the settings, the selected data will be copied or synchronized.

### Data transfer with SIM card

Your phone allows the data transfer without having a SIM card inserted.

Turn on your phone (with no SIM card inserted), and select Transfer and from the following options:

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

Select Receive data >Via Bluetooth to receive data from the other phone.

## Synchronize from a compatible PC

To synchronize data from calendar, notes, and contacts from a compatible PC, use Bluetooth wireless technology. You also need the correct version of Nokia PC Suite software for your phone installed on the PC. See "Computer connectivity" on 89 for information about Nokia PC Suite.

Synchronize the data in the phone contacts, calendar, and notes to correspond with the data of your compatible PC by starting the synchronization from the PC.

## Synchronize from a server

To use a remote Internet server, you have to subscribe to a synchronization service. For more information and the settings required for this service, contact your service provider. You may receive the settings as a configuration message. See "Configuration settings service" on page 9 and "Configuration" on page 57.

If you have saved data on the remote Internet server, you can synchronize your phone by starting the synchronization from your phone.

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

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

## ■ Call

Select Menu > Settings > Call and one of following options:

- Call forwarding (network service) — to forward your incoming calls. You may not be able to forward your call if some call restrictions functions are active. See Call restrictions in "Security" on page 58.

- Anykey answer > On — to answer an incoming call by briefly pressing any key, except the power key, the left and right selection keys, or the end key.

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

- **Audio enhancing** > **Active** — to enhance speech intelligibility, especially in noisy environments.

- **1-touch dialing** > **On** and the names and phone numbers assigned to the 1-touch dialing keys, **2** to **9**. To dial, press and hold the corresponding number key.

- **Call waiting** > **Activate** — to set the network to notify you of an incoming call while you have a call in progress (network service). See "Call waiting (network service)" on page 20.

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

- **Send my caller ID** (network service) > **Yes**, or **Set by network**.

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

## ■ Phone

Select **Menu** > **Settings** > **Phone** and one of the following options:

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

- **Memory status** — to view the free memory and the used memory for each function in the list.

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

- **Security keyguard** — to set the phone to ask for the security code when you unlock the keyguard. Enter the security code, and select **On**. When the keyguard is on, calls still may be possible to the official emergency number programmed into your device.

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

- **Welcome note** — to be shown briefly when the phone is switched on. You can create your welcome note for your phone.

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

- **Confirm SIM service actions**. See "SIM services" on page 88.

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

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

## ■ Enhancement

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

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

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

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

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

- **TTY/TDD** > **Use TTY** > **Yes** — to use the text phone settings instead of headset or loopset settings.

## ■ Configuration

You can configure your phone with settings that are required for certain services to function correctly. The services are browser, multimedia messaging, remote Internet server synchronization, presence, e-mail application, and streaming. You can get the settings from your SIM card or from a service provider as a configuration message, or you can 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.

57

To save the configuration settings received as a configuration message, see "Configuration settings service" on page 9.

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

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

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

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

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

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

## ■ Security

When security features that restrict calls are in use (such as call 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** and one of the following options:

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

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

- **Fixed dialing** — to restrict your outgoing calls to selected phone numbers, if this function is supported by your SIM card.

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

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

- **Access codes** — to set the PIN code or UPIN code in use, or to change the security code, PIN code, UPIN code, PIN2 code, and call restrictions password.

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

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

## ■ Restore factory settings

To reset some of the menu settings to their original values, select **Menu** > **Settings** > **Restore factory settings** and enter the security code. Data that you have entered or downloaded is not deleted. For example, names and numbers in **Contacts** are not affected.

# 11. Operator menu

Your service provider may have programmed an operator-specific menu into your phone. If this menu exists in your phone, its functions depend entirely upon the service provider. Contact your service provider for more information.

# 12. Gallery

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

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

The files stored in the Gallery use a memory that may have a capacity of approximately 52 MB in the phone.

1. Select Menu > Gallery.

   The original folders in the Gallery are: Images, Video clips, Music files, Themes, Graphics, Tones, Recordings, and Received files.

2. Scroll to the folder you want, select Open, scroll to an image, tone or voice recording, select Options and one of the following options may be available: Downloads, Delete folder, Move, Rename folder, Details, Type of view, Sort, Add folder, Memory status, and Activation key list.

3. Scroll to the file you want to view and select Open.

4. Select Options, and use one of the following functions that may be available for the selected file: Downloads, Delete, Move, Rename, Apply theme, Set as wallpaper, Set as ring tone, Details, Type of view, Sort, Add folder, or Memory status.

   The following options are also available:

   Send — to send the selected file using MMS or Bluetooth wireless technology.

   Delete all — to delete all the files and folders in the selected folder.

   Edit image — to insert text, a frame, or clip-art into the selected picture, or to crop the image.

   Open in sequence — to view the files in the folder one by one.

   Zoom — to increase the size of the image.

   Mute audio (Unmute audio) — to mute (unmute) the sound file.

   Set contrast — to adjust the contrast level of the image.

**Activate content** — to update the activation key of the selected file. The option is only shown if the activation key update is supported by the file.

**Activation key list** — to view the list of all available activation keys. You can delete expired keys.

# 13. Media

## ■ Camera

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

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

### Take a photo

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

   The phone saves the photo in **Gallery** > **Images**

2. To take another photo, select **Back**.

3. To send the photo as a multimedia message, select **Send**.

4. To view the options, select **Options**.

### Record a video clip

Select **Menu** > **Media** > **Camera**. To select the video mode, scroll left or right, or select **Options** > **Video**, and select **Record**. To pause the recording, select **Pause**; to resume the recording, select **Contin.** To stop the recording, select **Stop**. The phone saves the recording in **Gallery** > **Video clips**. To view the options, select **Options**.

## ■ Media player

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

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

When pressing the navigation key right (fast forward button) or the navigation key left (rewind button), select **FF/rew interval** to set the length of a scrolling jump during streaming audio.

## Set for streaming service

You may receive the configuration settings required for the streaming as a configuration message from the network operator or service provider. See "Configuration settings service" on page 9. To enter the settings manually, see "Configuration" on page 57.

Select Menu > Media > Media player > Streaming settings and one of the following options:

Configuration — only the configurations that support streaming are shown. Select a service provider, Default, or Personal config.

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

# ■ Music player

Your phone includes a music player for listening to music tracks, recordings, or other MP3 or AAC sound files that you have transferred to the phone with the Nokia Audio Manager application. Music files are automatically detected and added to the default track list.

## Play music tracks

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

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

3. To skip to the beginning of the next track, select ▶▶|. To skip to the beginning of the previous track, select |◀◀ twice.

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

5. To stop the playing, select ■.

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

## Settings

In the Music player menu, the following options may be available:

64

- **Volume** — to change the volume level by pressing the navigation key left or right

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

- **Track list** — to view all the tracks available on the track list. To play a track, scroll to the track you want, and select **Play**. Select **Options** > **Refresh all tracks** or **Change track list** — to refresh the track list (for example, after adding new tracks to the list) or change the track list that is shown when you open the **Music player** menu, if several track lists are available in the phone.

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

- **Media equalizer** — to open the list of media equalizer sets. See "Equalizer" on page 67.

- **Loudspeaker** or **Headset** — to listen to the music player through the loudspeaker or a compatible headset connected to the phone. When using a headset, you can skip to the next track by pressing the headset key.

- **Send** — to send the selected file using MMS or a Bluetooth connection.

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

- **Memory status** — to view the free and used memory capacity.

## ■ 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.

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

Select **Menu** > **Media** > **Radio**. To use the graphical keys ▲, ▼, ◄◄, or ►► on the phone display, scroll left or right to the key you want and select it.

## Save channels

1. To start the channel search, select and hold ◄◄ or ►►. To change the radio frequency in 0.05 MHz steps, press ◄◄ or ►►.

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

3. To save the channel in the memory location from 10 to 20, press **1** or **2**, and press and hold the number key (**0** to **9**) you want.

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

## Listen

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

2. To scroll to the channel you want, select ▲ or ▼, or press the headset key.

3. To select a radio channel location, briefly press the corresponding number keys.

4. Select **Options** and one of the following options:

   - **Turn off** — to turn off the radio.

   - **Volume** — to change the volume level by pressing the navigation key left or right.

   - **Save channel** — to save a new channel by entering the channel's name.

   - **Channels** — to select the list of saved channels. To delete or rename a channel, scroll to the channel you want, and select **Options** > **Delete channel** or **Rename**.

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

   - **Set frequency** — to enter the frequency of the radio channel you want.

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

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

# ■ Recorder

You can record pieces of speech, sound, or an active call. This is useful when recording a name and phone number for writing them down later.

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

## Record sound

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

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

3. To end the recording, select ▪.

   The recording is saved in **Gallery** > **Recordings**.

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

5. To send the last recording using Bluetooth, or as a multimedia message, select **Options** > **Send last recorded**.

## List of recordings

1. Select **Menu** > **Media** > **Recorder** > **Options** > **Recordings list**.

   The list of folders in the **Gallery** is shown.

2. Open **Recordings** to see the list with recordings.

3. Select **Options** to select options for files in the **Gallery**. See "Gallery" on page 61.

## Define a storage folder

To use a folder other than **Recordings** as the default folder in the **Gallery**, select **Menu** > **Media** > **Recorder** > **Options** > **Select memory** and a folder from the list.

# ■ Equalizer

You can control the sound quality when using the music player by amplifying or attenuating frequency bands.

1. Select **Menu** > **Media** > **Equalizer**.
2. To activate a set, scroll to one of the equalizer sets, and select **Activate**.
3. To view, edit, or rename a selected set, select **Options** > **View**, **Edit**, or **Rename**.

   Not all sets can be edited or renamed.

# 14. Organizer

Your Nokia 8800 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, wallet, calculator, countdown timer, and stopwatch.

## ■ 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.

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

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

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

### Alert tone and message

The phone sounds an alert tone, and Alarm! and the current time are displayed, even if the phone is switched off. To stop the alarm, select Stop. If you let the phone continue to sound the alarm for a minute, or select Snooze, the alarm stops for the selected snooze timeout and then resumes.

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

## ■ Calendar

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

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

The current day is indicated by a frame. If there are any notes set for the day, the day is in bold type. To view the day notes, select **View**. To view a week, select **Options** > **Week view**. To delete all notes in the calendar, select the month or week view, and select **Options** > **Delete all notes**.

Other options for the calendar day view can be make a note; delete, edit, move, or repeat a note; copy a note to another day; send a note with Bluetooth technology; or send a note as a text message or multimedia message to the calendar of another compatible phone. In **Settings**, you can set the date and time settings. In the **Auto-delete notes** option, you can set the phone to delete old notes automatically after a specified time.

## Make a note

1. Select **Menu** > **Organizer** > **Calendar** and the date you want.

2. Select **Options** > **Make a note** and one of the following note types:
   📇 **Meeting**, ☎ **Call**, 🎁 **Birthday**, ✍ **Memo** or ▤ **Reminder**.

## Note alarm

The phone beeps, and displays the note. If a call note appears, you can call the displayed number by pressing the call key. To stop the alarm and to view the note, select **View**. To stop the alarm for 10 minutes, select **Snooze**. To stop the alarm without viewing the note, select **Exit**.

## ■ 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

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

2. If no note is added, select **Add**; otherwise, select **Options** > **Add**.

3. Write the note, and select **Save**, the priority, the deadline and the alarm type for the note.

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

70

## Options

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

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

# ■ Notes

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

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

2. To make a note if one is not added, select **Add**; otherwise, select **Options** > **Make a note**.

3. Write the note, and select **Save**.

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

## <u>Options</u>

Other options for notes include deleting and editing a note. While editing a note, you can also exit the text editor without saving the changes. If the note is too long to be sent as a text message, the phone prompts you to delete the appropriate number of characters from your note.

# ■ Wallet

In **Wallet**, you can save personal information, such as credit card numbers, addresses, and access codes to services that require a user name and password. You can easily retrieve the information in the wallet to fill in online forms, if the service supports it.

The first time you access the wallet, you must define the wallet code that protects your encrypted data.

1. When **Create wallet code:** appears, enter the code, and select **OK**.

2. When **Verify wallet code:** appears, enter the code again, and select **OK**. See "Wallet code" on page 19.

3. If you want to delete all the content of the wallet and the wallet code, enter *#7370925538# (*#res wallet# in letters) while in the standby mode. You also need the security code of the phone. See "Security code" on page 18.

4. To add or edit contents, open the Wallet menu. To use the content of the wallet in a mobile service, access the wallet from the browser. See "Web" on page 80.

## Access the menu

1. Select Menu > Organizer > Wallet, enter your wallet code, and select OK.

2. Select one of the following options:

   Wallet profiles — to create card combinations for different services. A wallet profile is helpful if the service asks you to fill in many data items. You can select the appropriate wallet profile instead of selecting different cards separately.

   Cards — to save personal card information. You can save payment, loyalty, and access card information, such as user name and password combinations for different services, addresses, and user data. See "Save card details" on page 72.

   Tickets — to save the notifications of e-tickets that you bought through a mobile service. To view the tickets, select Options > View.

   Receipts — to save receipts of mobile purchases.

   Personal notes — to save all kinds of personal information that you want to keep protected by the wallet PIN code. See "Personal notes" on page 73.

   Settings — to modify wallet settings. See "Create a profile" on page 74.

## Save card details

1. Select Menu > Organizer > Wallet, enter your wallet code, and select OK.

2. Select Cards and either Payment cards, Loyalty cards, Access cards, User info cards, or Address cards.

3. If no card is added, select Add; otherwise, select Options > Add new and fill in the card detail fields.

If supported by your service provider, you can also receive card information to your phone as a configuration message. You are notified of the card category. For

availability of receiving card information as configuration settings, contact the card issuer or service provider.

## Personal notes

You can save personal notes, such as account numbers, passwords, or codes.

1. Select **Menu** > **Organizer** > **Wallet**, enter your wallet code, and select **OK** > **Personal notes**.

2. If no note is added, select **Add**; otherwise, select **Options** > **Add new** and enter the note and a title.

3. Select **Options** to edit a selected note, sort notes by name or date, or delete notes.

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

5. When viewing a note, select **Edit** to edit it or select **Options** and one of the following options:

   **Send via text msg.** — to copy the note as a text message.

   **Copy to calendar** — to copy the note to the calendar as a memo.

   **Use detail** — to extract numbers and e-mail and Web addresses from a note.

   **Delete** — to delete the note.

## Create a profile

When you have saved your personal card details, you can combine them together into a wallet profile. You can use the profile to retrieve wallet data from different cards while browsing.

1. Select **Menu** > **Organizer** > **Wallet**, enter your wallet code, and select **OK** > **Wallet profiles**.

2. To create a new wallet profile if no profile is added, select **Add**; otherwise, select **Options** > **Add new**.

3. Fill in the following fields. Some of the fields contain data that is selected from the wallet. You must save this data before you can create a wallet profile.

   **Select payment card next** and select a card from the payment card list.

   **Select loyalty card next** and select a card from the loyalty card list.

73

Select access card next and select a card from the access card list.

Select user info card next and select a card from the user data card list.

Select billing address next and select an address from the address card list.

Select shipping address next and select an address from the address card list.

Select receipt delivery address next and select an address from the address card list.

Select receipt delivery method next and select the means of delivery: To phone number or To e-mail address.

Wallet profile name: enter a name for the profile.

4. Select Done.

## Settings

1. Select Menu > Organizer > Wallet, enter your wallet code, and select OK > Settings.

2. To change the wallet code, select Change code.

3. To set the radio frequency identification (RFID) code and type, select RFID > RFID code and RFID type.

   RIFD is a method of remotely storing and retrieving data using devices called RFID tags. This technology offers a secure way to protect your commercial transactions.

## Purchases

To do your shopping, access a Web site that supports the wallet. The service must support the Electronic Commerce Modeling Language specification. See "Connect to a service" on page 81. Choose the product you want to buy and read carefully all provided information before your purchase. The text may not fit within a single screen. Therefore, make sure to scroll through and read all of the text before your purchase.

To pay for the items you want to buy, you are asked whether you want to use the wallet and your wallet PIN code.

1. Select the payment card you want to use from the Payment cards list.

If the data form you receive from the service provider supports the Electronic Commerce Modeling Language specification, the phone automatically fills in the credit card information or the wallet profile from the wallet.

2. Approve the purchase, and the information is forwarded.

   You may receive an acknowledgement or a digital receipt of the purchase.

3. To close the wallet, select Close wallet.

   If you do not use the wallet for five minutes, it closes automatically.

4.  If you have tried to access or have accessed confidential information requiring passwords (for example, your bank account), empty the cache of your phone after each use. See "Cache memory" on page 85 for more information.

# ■ Calculator

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

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

## Basic calculations

1. Select Menu > Organizer > Calculator and enter the first number in the calculation. If you need to enter a decimal point, press #.

2. Select Options > Add, Subtract, Multiply, Divide, Square, Square root, or Change sign.

3. Enter the second number in your calculation, and select Equals.

4. To start a new calculation, select and hold Clear.

## Currency conversion

1. Select Menu > Organizer > Calculator.

2. To save the exchange rate, select Options > Exchange rate.

3. Select the displayed options you want, enter the exchange rate, press # for a decimal point, and select OK.

The exchange rate remains in the memory until you replace it with another one.

4. To perform the currency conversion, enter the amount to be converted, select **Options** > **To home** or **To foreign**.

## ■ Countdown timer

1. Select **Menu** > **Organizer** > **Countdown timer**, enter the alarm time in hours, minutes, and seconds, and select **OK**.

   You can write your own note text, which will display when the time expires.

2. To start the countdown timer, select **Start**.

3. To change the countdown time, select **Change time**.

4. To stop the timer, select **Stop timer**.

If the alarm time is reached when the phone is in the standby mode, the phone sounds a tone and flashes the note text (if it is set) or **Countdown completed**. Stop the alarm by pressing any key. If no key is pressed, the alarm automatically stops within 30 seconds. To stop the alarm and to delete the note text, select **Exit**. To restart the countdown timer, select **Restart**.

## ■ Stopwatch

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

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

Select **Menu** > **Organizer** > **Stopwatch** and one of the following options:

- **Split timing** — to take intermediate times.

  - To start the time observation, select **Start**.

  -  Select **Split** every time you want to take an intermediate time.

  - To stop the time observation, select **Stop**.

  - To save the measured time, select **Save**.

  - To start the time observation again, select **Options** > **Start**. The new time is added to the previous time.

- To reset the time without saving it, select Reset.

- To set the stopwatch timing in the background, press the end key.

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

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

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

- View times or Delete times — to view or delete the saved times.

# 15. Applications

## ■ Games

Your phone software includes some games.

### Launch

Select **Menu** > **Applications** > **Games**, scroll to the game you want, and select **Open**, or press the call key.

For options related to a game, see "Other application options" on page 78.

### Downloads

Select **Menu** > **Applications** > **Options** > **Downloads** > **Game downloads**. The list of available bookmarks is shown. Select **More bookmarks** to access the list of bookmarks in the **Web** menu. See "Bookmarks" on page 83.

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

### Settings

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

## ■ Collection

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

### Launch an application

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

### Other application options

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

**Details** — to give additional information about the application.

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

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

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

- Ask every time and the phone asks always for net access.

- Ask first time only and the phone asks on first attempt to net access.

- Always allowed to allow the net access.

- Not allowed to not allow the net access.

## Download applications

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

You can download new Java applications in different ways:

Select Menu > Applications > Options > Downloads > App. downloads, and the list of available bookmarks is shown. Select More bookmarks to access the list of bookmarks in the Web menu. Select the appropriate bookmark to connect to the page you want. For the availability of different services, pricing, and tariffs, contact your service provider.

Select Menu > Web > Downloads. Download an appropriate application or game. See "Downloads" on page 78.

Use the game download function. See "Downloads" on page 78.

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

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

When downloading an application, it may be saved in the Games menu instead of the Applications menu.

# 16. 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

You may receive the configuration settings required for browsing as a configuration message from the network operator or service provider that offers the service that you want to use. See "Configuration settings service" on page 9.

You can also enter all the configuration settings manually. See "Configuration" on page 57.

### 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 > Configuration.

   Only the configurations that support the browsing service are shown

2. Select a service provider, Default, or Personal config. for browsing.

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

4. If you want to perform manual user authentication for intranet connections, select Display terminal window > Yes.

### Connect to a service

There are several ways to connect to a service.

- To open the service's home page, select Menu > Web > Home; or in the standby mode, press and hold **0**.

- To select a bookmark, select Menu > Web > Bookmarks.

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

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

## ■ Browse

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

If packet data is selected as the data bearer, ▣ is shown in the top left of the display during browsing. If you receive a call or a text message, or make a call during a packet data connection, ▨ is shown in the top right of the display to

81

indicate that the packet data connection is suspended (on hold). After a call, the phone tries to reconnect the packet data connection.

## Phone keys

- Press the scroll key in any direction to browse through the page.
- To select a highlighted item, press the call key.
- To enter letters and numbers, press the keys, **0** to **9**.
- To enter special characters, press **\***.

## Options

The following options may be available: Use wallet info, Home, Shortcuts, Add bookmark, Bookmarks, Page options, History, Downloads, Other options, Reload, and Quit. Your service provider may also offer other options.

## Direct calling

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

## Appearance settings

While browsing, select Options > Other options > Appearance settings; or in the standby mode, select Menu > Web > Settings > Appearance settings and one of the following options:

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

Font size > Extra small, Small, or Medium — to set the font size.

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

Alerts > Alert for unsecure connection > Yes — to set the phone to alert when a encrpyted connection changes to an unencrpyted one during browsing.

Alerts > Alert for unsecure items > Yes — to set the phone to alert when a encrpyted page contains an unsecure item. These alerts do not guarantee a secure connection. For more information, see "Browser security" on page 85.

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

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

## Cookies

A cookie is data that a site saves in the cache memory of your phone. Cookies are saved until you clear the cache memory. See "Cache memory" on page 85.

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

### Scripts over secure connection

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

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

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

## ■ Bookmarks

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

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

2. Scroll to a bookmark, and select it; or press the call key to make a connection to the page associated with the bookmark.

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

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

## Receive

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

## ■ Downloads (network service)

To download more tones, images, games, or applications to your phone, select **Menu** > **Web** > **Downloads** > **Tone downloads**, **Graphic downloads**, **Game downloads**, **Video downloads**, **Theme downloads**, or **App. downloads**.

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

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

## ■ Service inbox (network service)

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

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

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

## Settings

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

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

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

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

## ■ Cache memory

A cache is a memory location that is used to store data temporarily. If you have tried to access or have accessed confidential information requiring passwords, empty the cache after each use. The information or services you have accessed is stored in the cache.

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

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

## ■ Browser security

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

### Security module

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

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

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

85

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

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

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

See also "Access codes" on page 18.

## Certificates

**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 should be valid, check that the current date and time in your device are correct.

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

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

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

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

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

## Digital signature

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

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

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

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

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

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

Select the user certificate you want to use. Enter the signing PIN (see "Access codes" on page 18), and select OK. The digital signature icon disappears, and the service may display a confirmation of your purchase.

# 17. SIM services

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

For availability, rates, and information on using SIM services, contact your 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 by selecting the option Yes within the menu Confirm SIM service actions, in Phone settings.

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

# 18. Computer connectivity

## ■ Nokia PC Suite

Nokia PC Suite software is available for the Nokia 8800 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/pcsuite**.

## ■ Packet data, HSCSD, and CSD

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

See "Packet data (EGPRS) (network service)" on page 53.

## ■ Data communication applications

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

Making or answering phone calls during a computer connection is not recommended, as it might disrupt the operation.

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

# 19. 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.

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

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

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

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.

# 20. 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. When the talk and standby times are noticeably shorter than normal, replace the battery. Use only Nokia approved batteries, and recharge your battery only with Nokia approved chargers designated for this device.

Unplug the charger from the electrical plug and the device when not in use. Do not leave 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 and its ability to charge. Always try to keep the battery between 15°C and 25°C (59°F and 77°F). A device with a hot or cold battery may not work temporarily, even when the battery is fully charged. Battery performance is particularly limited in temperatures well below freezing.

Do not dispose of batteries in a fire as they may explode. Batteries may also explode if damaged. Dispose of batteries according to local regulations. Please recycle when possible. Do not dispose as household waste.

## Nokia battery authentication guidelines

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

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

**Authenticate hologram**

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

2. When you angle the hologram. to the left, right, down, and up sides of the logo, you should see 1, 2, 3, and 4 dots on each side respectively.
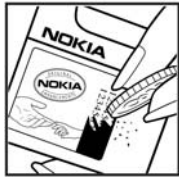
3. Scratch the side of the label to reveal a 20-digit code, for example, 12345678919876543210. Turn the battery so that the numbers are facing upwards. The 20-digit code reads starting from the number at the top row followed by the bottom row.

4. Confirm that the 20-digit code is valid by following the instructions at www.nokia.com/batterycheck.

**What if your battery is not authentic?**

If you cannot confirm that your Nokia battery with the hologram label is an authentic Nokia battery, please do not use the battery. Take it to the nearest

authorized Nokia service point or dealer for assistance. The use of a battery that is not approved by the manufacturer may be dangerous and may result in poor performance and damage to your device and its enhancements. It may also invalidate any approval or warranty applying to the device.

To find out more about original Nokia batteries visit www.nokia.com/battery.

# ■ 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.

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

## Medical devices

Operation of any radio transmitting equipment, including wireless phones, may interfere with the functionality of inadequately protected medical devices. Consult a physician or the manufacturer of the medical device to determine if they are adequately shielded from external RF energy or if you have any questions. Switch off your 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.

### Airplanes

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

dangerous to the operation of the aircraft, disrupt the wireless telephone network, and may be illegal.

## Potentially explosive environments

Switch off your device when in any area with a potentially explosive atmosphere and obey all signs and instructions. Potentially explosive atmospheres include areas where you would normally be advised to turn off your vehicle engine. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death. Switch off the device at 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.

## ■ 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. Enter the official emergency number for your present location. Emergency numbers vary by location.

4. Press the call key.

If certain features are in use, you may first need to turn those features off before you can make an emergency call. Consult this guide or your service provider. 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 8800 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-13 is 0.50 W/kg. Your phone's device type is listed on the label located under the battery.

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-13 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 0.46 W/kg and when properly worn on the body is 0.37 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-13.

## ■ Charging, talk and standby times

This section provides information about battery charging times with the Travel Charger (ACP-12), 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-5X 600 mAh Li-Ion internal fixed battery:

Travel Charger (ACP-12): up to 1 hour, 5 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 2 hours, 40 minutes

Standby time: up to 200 hours

## ■ Technical information

**Dimensions:**

- Width: 45mm
- Height: 107 mm
- Thickness: 16.5 mm

**Weight:** 141 gm

**Wireless networks:** GSM 900, 1800 and 1900

**Size (volume):** 67 cu cm

**Frequency range (Tx):**

- GSM 900: 880–915 MHz
- GSM 1800: 1710–1785 MHz
- GSM 1900: 1850–1910 MHz

**Frequency range (Rx):**

- GSM 900: 925–960 MHz

97

- GSM 1800: 1805–1880 MHz
- GSM 1900: 1930–1990 MHz

**Transmitter output power**:

- 2W (GSM 900 max)
- 1W (GSM 1800/GSM 1900 max)

**Operating temperature:** 14° F to + 131° F (-10° C to + 55° C)

## ■ 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 |
| 6356759 | 6359865 | 6359904 | 6363259 | 6370362 | 6370389 |
| 6377803 | 6377820 | 6381468 | 6385254 | 6385451 | 6392605 |
| 6392660 | 6400958 | 6417817 | 6430163 | 6434133 | 6437711 |
| 6438370 | 6445932 | 6453179 | 6456237 | 6456826 | 6463278 |
| 6470470 | 6487397 | 6510148 | 6522670 | 6591116 | 6606508 |
| D481,674 | | | | | |

# 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. If your device does get wet, remove the battery and allow the device to dry completely before replacing it.

- Do not use or store the device in dusty, dirty areas. Its moving parts and electronic components can be damaged.

- Do not store the device in hot areas. High temperatures can shorten the life of electronic devices, damage batteries, and warp or melt certain plastics.

- Do not store the device in cold areas. When the device returns to its normal temperature, moisture can form inside the device and damage electronic circuit boards.

- Do not attempt to open the device other than as instructed in this guide.

- Do not drop, knock, or shake the device. Rough handling can break internal circuit boards and fine mechanics.

- Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the device.

- Do not paint the device. Paint can clog the moving parts and prevent proper operation.

- Use a soft, clean, dry cloth to clean any lenses (such as camera, proximity sensor, and light sensor lenses).

- Use chargers indoors.

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

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

# Statements from other agencies

## ■ Message from the CTIA

**(Cellular Telecommunications & Internet Association) to all users of mobile phones**

© 2001 Cellular Telecommunications & Internet Association. All Rights Reserved.1250 Connecticut Avenue, NW Suite 800, Washington, DC 20036. Phone: (202) 785-0081

Safety is the most important call you will ever make.

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

Tens of millions of people in the U.S. today take advantage of the unique combination of convenience, safety and value delivered by the wireless telephone. Quite simply, the wireless phone gives people the powerful ability to communicate by voice—almost anywhere, anytime—with the boss, with a client, with the kids, with emergency personnel or even with the police. Each year, Americans make billions of calls from their wireless phones, and the numbers are rapidly growing.But an important responsibility accompanies those benefits, one that every wireless phone user must uphold. When driving a car, driving is your first responsibility. A wireless phone can be an invaluable tool, but good judgment must be exercised at all times while driving a motor vehicle—whether on the phone or not.The basic lessons are ones we all learned as teenagers. Driving requires alertness, caution and courtesy. It requires a heavy dose of basic common sense—keep your head up, keep your eyes on the road, check your mirrors frequently and watch out for other drivers. It requires obeying all traffic signs and signals and staying within the speed limit. It means using seatbelts and requiring other passengers to do the same. But with wireless phone use, driving safely means a little more. This brochure is a call to wireless phone users everywhere to make safety their first priority when behind the wheel of a car. Wireless telecommunications is keeping us in touch, simplifying our lives, protecting us in emergencies and providing opportunities to help others in need. When it comes to the use of wireless phones, safety is your most important call.

### Wireless Phone "Safety Tips"

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

1. Get to know your wireless phone and its features such as speed dial and redial. Carefully read your instruction manual and learn to take advantage of valuable features most phones offer, including automatic redial and memory. Also, work to memorize the phone keypad so you can use the speed dial function without taking your attention off the road.

2. When available, use a hands-free device. A number of hands-free wireless phone accessories are readily available today. Whether you choose an installed mounted device for your wireless phone or a speaker phone accessory, take advantage of these devices if available to you.

3. Position your wireless phone within easy reach. Make sure you place your wireless phone within easy reach and where you can grab it without removing your eyes from the road. If you get an incoming call at an inconvenient time, if possible, let your voice mail answer it for you.

4. Suspend conversations during hazardous driving conditions or situations. Let the person you are speaking with know you are driving; if necessary, suspend the call in heavy traffic or hazardous weather conditions. Rain, sleet, snow and ice can be hazardous, but so is heavy traffic. As a driver, your first responsibility is to pay attention to the road.

5. Do not take notes or look up phone numbers while driving. If you are reading an address book or business card, or writing a "to do" list while driving a car, you are not watching where you are going. It's common sense. Don't get caught in a dangerous situation because you are reading or writing and not paying attention to the road or nearby vehicles.

6. Dial sensibly and assess the traffic; if possible, place calls when you are not moving or before pulling into traffic. Try to plan your calls before you begin your trip or attempt to coincide your calls with times you may be stopped at a stop sign, red light or otherwise stationary. But if you need to dial while driving, follow this simple tip—dial only a few numbers, check the road and your mirrors, then continue.

7. Do not engage in stressful or emotional conversations that may be distracting. Stressful or emotional conversations and driving do not mix— they are distracting and even dangerous when you are behind the wheel of a car. Make people you are talking with aware you are driving and if necessary, suspend conversations which have the potential to divert your attention from the road.

8. Use your wireless phone to call for help. Your wireless phone is one of the greatest tools you can own to protect yourself and your family in dangerous situations—with your phone at your side, help is only three numbers away. Dial 9-1-1 or other local emergency number in the case of fire, traffic

accident, road hazard or medical emergency. Remember, it is a free call on your wireless phone!

9.  Use your wireless phone to help others in emergencies. Your wireless phone provides you a perfect opportunity to be a "Good Samaritan" in your community. If you see an auto accident, crime in progress or other serious emergency where lives are in danger, call 9-1-1 or other local emergency number, as you would want others to do for you.

10. Call roadside assistance or a special wireless 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

**The U.S. Food and Drug Administration (FDA) provides the following consumer information about wireless phones.**
See http://www.fda.gov/cellphones/ for updated information.

Do wireless phones pose a health hazard?

The available scientific evidence does not show that any health problems are associated with using wireless phones. There is no proof, however, that wireless phones are absolutely safe. Wireless phones emit low levels of radiofrequency energy (RF) in the microwave range while being used. They also emit very low levels of RF when in the stand-by mode. Whereas high levels of RF can produce health effects (by heating tissue), exposure to low level RF that does not produce heating effects causes no known adverse health effects. Many studies of low

level RF exposures have not found any biological effects. Some studies have suggested that some biological effects may occur, but such findings have not been confirmed by additional research. In some cases, other researchers have had difficulty in reproducing those studies, or in determining the reasons for inconsistent results.

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

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

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

• Support needed research into possible biological effects of RF of the type emitted by wireless phones;

• Design wireless phones in a way that minimizes any RF exposure to the user that is not necessary for device function; and

• Cooperate in providing users of wireless phones with the best possible information on possible effects of wireless phone use on human health.

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

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

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

FDA shares regulatory responsibilities for wireless phones with the Federal Communications Commission (FCC). All phones that are sold in the United States must comply with FCC safety guidelines that limit RF exposure. FCC relies on FDA and other health agencies for safety questions about wireless phones.

FCC also regulates the base stations that the wireless phone networks rely upon. While these base stations operate at higher power than do the wireless phones themselves, the RF exposures that people get from these base stations are typically thousands of times lower than those they can get from wireless phones. Base stations are thus not the primary subject of the safety questions discussed in this document.

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

FDA is working with the U.S. National Toxicology Program and with groups of investigators around the world to ensure that high priority animal studies are conducted to address important questions about the effects of exposure to radiofrequency energy (RF). FDA has been a leading participant in the World Health Organization International Electromagnetic Fields (EMF) Project since its inception in 1996. An influential result of this work has been the development of a detailed agenda of research needs that has driven the establishment of new research programs around the world. The Project has also helped develop a series of public information documents on EMF issues. FDA and the Cellular Telecommunications & Internet Association (CTIA) have a formal Cooperative Research and Development Agreement (CRADA) to do research on wireless phone safety. FDA provides the scientific oversight, obtaining input from experts in government, industry, and academic organizations. CTIA-funded research is conducted through contracts to independent investigators. The initial research will include both laboratory studies and studies of wireless phone users. The CRADA will also include a broad assessment of additional research needs in the context of the latest research developments around the world.

What steps can I take to reduce my exposure to radiofrequency energy from my wireless phone?

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

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

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

What about children using wireless phones?

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

Do hands-free kits for wireless phones reduce risks from exposure to RF emissions?

Since there are no known risks from exposure to RF emissions from wireless phones, there is no reason to believe that hands-free kits reduce risks. Hands-free kits can be used with wireless phones for convenience and comfort. These systems reduce the absorption of RF energy in the head because the phone, which is the source of the RF emissions, will not be placed against the head. On the other hand, if the phone is mounted against the waist or other part of the body during use, then that part of the body will absorb more RF energy. Wireless phones marketed in the U.S. are required to meet safety requirements regardless of whether they are used against the head or against the body. Either configuration should result in compliance with the safety limit.

Do wireless phone accessories that claim to shield the head from RF radiation work?

Since there are no known risks from exposure to RF emissions from wireless phones, there is no reason to believe that accessories that claim to shield the head from those emissions reduce risks. Some products that claim to shield the user from RF absorption use special phone cases, while others involve nothing more than a metallic accessory attached to the phone. Studies have shown that these products generally do not work as advertised. Unlike "hand-free" kits, these so-called "shields" may interfere with proper operation of the phone. The phone

107

may be forced to boost its power to compensate, leading to an increase in RF absorption. In February 2002, the Federal trade Commission (FTC) charged two companies that sold devices that claimed to protect wireless phone users from radiation with making false and unsubstantiated claims. According to FTC, these defendants lacked a reasonable basis to substantiate their claim.

How does FCC Audit Cell Phone RF?

After FCC grants permission for a particular cellular telephone to be marketed, FCC will occasionally conduct "post-grant" testing to determine whether production versions of the phone are being produced to conform with FCC regulatory requirements. The manufacturer of a cell phone that does not meet FCC's regulatory requirements may be required to remove the cell phone from use and to refund the purchase price or provide a replacement phone, and may be subject to civil or criminal penalties. In addition, if the cell phone presents a risk of injury to the user, FDA may also take regulatory action. The most important post-grant test, from a consumer's perspective, is testing of the RF emissions of the phone. FCC measures the Specific Absorption Rate (SAR) of the phone, following a very rigorous testing protocol. As is true for nearly any scientific measurement, there is a possibility that the test measurement may be less than or greater than the actual RF emitted by the phone. This difference between the RF test measurement and actual RF emission is because test measurements are limited by instrument accuracy, because test measurement and actual use environments are different, and other variable factors. This inherent variability is known as "measurement uncertainty." When FCC conducts post-grant testing of a cell phone, FCC takes into account any measurement uncertainty to determine whether regulatory action is appropriate. This approach ensures that when FCC takes regulatory action, it will have a sound, defensible scientific basis.

FDA scientific staff reviewed the methodology used by FCC to measure cell phone RF, and agreed it is an acceptable approach, given our current understanding of the risks presented by cellular phone RF emissions. RF emissions from cellular phones have not been shown to present a risk of injury to the user when the measured SAR is less than the safety limits set by FCC (an SAR of 1.6 w/kg). Even in a case where the maximum measurement uncertainty permitted by current measurement standards was added to the maximum permissible SAR, the resulting SAR value would be well below any level known to produce an acute effect. Consequently, FCC's approach with measurement uncertainty will not result in consumers being exposed to any known risk from the RF emitted by cellular telephones.

FDA will continue to monitor studies and literature reports concerning acute effects of cell phone RF, and concerning chronic effects of long-term exposure to

108

cellular telephone RF (that is, the risks from using a cell phone for many years). If new information leads FDA to believe that a change to FCC's measurement policy may be appropriate, FDA will contact FCC and both agencies will work together to develop a mutually-acceptable approach.

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# Index

## NUMERICS

1-touch dialing 20

## A

access codes 18
alarm clock 69
antenna 13

## B

battery
    charge 12
    strength indicator 16
bluetooth 52
bookmarks 83
browser 81
    appearance settings 82
    options 82
business cards 42

## C

calendar 69
call
    answer 20
    counters 47
    end 20
    make 20
    options 21
    reject 20
    timers 47
    voice mail 36
    waiting 20
camera 63
color schemes 50
contacts 40
    add 40
    copy 41
    delete 41
    edit 41
    search 40