Nokia 6212 classic User Guide

FCC Draft

CE 0434

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FCC/INDUSTRY CANADA NOTICE

Your device may cause TV or radio interference (for example, when using a telephone in close proximity to receiving equipment). The FCC or Industry Canada can require you to stop using your telephone if such interference cannot be eliminated. If you require assistance, contact your local service facility. This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Any changes or modifications not expressly approved by Nokia could void the user's authority to operate this equipment.

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Contents

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 devices may be susceptible to interference, which could affect performance.

SWITCH OFF IN RESTRICTED AREAS
Follow any restrictions. Switch the device off in aircraft, near medical equipment, fuel, chemicals, or blasting areas.

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

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

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

General information

■ Helpful hints

Before taking your phone to a Nokia Care point

Q: What can I do to resolve operation issues with my phone?

A: Try the following:

- Switch off the phone and remove and replace the battery.
- Restore the factory settings. Select **Menu** > *Settings* > *Rest. factory sett.*. To save all personal data in your phone, select *Restore settings only*.
- Update the phone software with Nokia Software Updater if available. See www.nokia.com/softwareupdate or your local Nokia website.

Bluetooth connectivity

Q: Why can't I find a Bluetooth device?

A: Try the following:

- Check that both devices have activated Bluetooth connectivity.
- Check that the distance between the two devices is not more than 10 metres (33 feet) and that there are no walls or other obstructions between the devices.
- Check that the other device is not in the hidden mode.
- Check that both devices are compatible.

Calls

Q: How do I adjust the volume?

A: To adjust the volume during a call, press the volume key up or down.

Q: How do I change the ringing tone?

A: Select **Menu** > *Settings* > *Tones*.

Contacts

Q: How do I add a new contact?

A: Select **Menu** > *Contacts* > *Names* > **Options** > *Add new contact*.

Q: How do I add additional information to a contact?

A: Search for the contact to which you want to add a detail, and select **Details** > **Options** > *Add detail*. Select from the available options.

Menus

Q: How can I change the look of the menus?

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

Q: How do I personalise my menu?

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

Messaging

Q: Why can't I send a multimedia message (MMS)?

A: To check availability and to subscribe to the multimedia messaging service (MMS, network service), contact your service provider.

Q: How do I set up e-mail?

A: To use e-mail on your phone, you need a compatible e-mail system. For the correct settings, contact your e-mail service provider.
To activate the e-mail settings, select **Menu** > *Messaging* > *Message settings* > *E-mail messages*.

PC connectivity

Q: Why do I have problems connecting the phone to my PC?

A: Ensure that Nokia PC Suite is installed and running on your PC. For further information, see the help function in Nokia PC Suite or the support pages at www.nokia.com.

Shortcuts

Q: Are there any shortcuts that I can use?

A: There are several shortcuts on your phone:

- To access the call log, press the call key once. To make a call, scroll to a number or name, and press the call key.

- To open the web browser, press and hold **0**.

- To call your voice mailbox, press and hold **1**.

- To change from any profile to the silent profile and back to the general profile, press and hold **#**.

■ About your device

The wireless device described in this guide is approved for use on the WCDMA 850 and 2100, and GSM 850, 900,1800, and 1900 networks. Contact your service provider for more information about networks.

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

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

Your device may have preinstalled bookmarks and links for third-party internet sites. You may also access other third-party sites through your device. Third-party sites are not affiliated with Nokia, and Nokia does not endorse or assume liability for them. If you choose to access such sites, you should take precautions for security or content.

Warning: To use any feature in this device, other than the alarm clock or NFC card applications when NFC is set on and card activation level is set to Always, the device must be switched on. Do not switch the device on when wireless device use may cause interference or danger.

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

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

■ Network services

To use the phone you must have service from a wireless service provider. Many of the features require special network features. These features are not available on all networks; other networks may require that you make specific arrangements with your service provider before you can use the network services. Your service provider can give you instructions 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 phone. If so, these features will not appear on your phone menu. Your phone may also have a special configuration such as changes in menu names, menu order, and icons. Contact your service provider for more information.

This device supports WAP 2.0 protocols (HTTP and SSL) that run on TCP/IP protocols. Some features of this device, such as multimedia messaging (MMS), browsing, e-mail application, instant messaging, remote synchronisation, and content downloading using the browser or MMS, require network support for these technologies.

■ Enhancements

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

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

■ Access codes

Select **Menu** > *Settings* > *Security* to set how your phone uses the access codes and security settings.

- To prevent accidental key presses, use the keypad lock (keyguard).

  Select **Menu** > *Settings* > *Phone* > *Automatic keyguard* or *Security keyguard* > *On* or *Off*. If the Security keyguard is activated, enter a security code of your choice when requested.

  To unlock the keys, select **Unlock**, and press the * key.

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

- To create or change a security code, select **Menu** > *Settings* > *Security* > *Access codes*, and choose from the available options.

- The PIN code, supplied with the SIM card, helps to protect the card against unauthorised use.

- The PIN2 code, supplied with some SIM cards, is required to access certain services.

- PUK and PUK2 codes may be supplied with the SIM card. If you enter the PIN or PIN2 code incorrectly three times in succession, you will be asked for the PUK or PUK2 code. If you do not have them, contact your service provider.

- The barring password (four digits) is required when using the *Call barring service* to restrict calls to and from your phone (network service).

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

■ Software updates

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

Nokia may produce software updates that may offer new features, enhanced functions, or improved performance. You may be able to request these updates through the Nokia Software Updater PC application. To update the device software, you need the Nokia Software Updater application and a compatible PC with Microsoft Windows 2000, XP, or Vista operating system, internet access, and a compatible data cable to connect your device to the PC.

To get more information and to download the Nokia Software Updater application, see www.nokia.com/softwareupdate or your local Nokia web site.

Downloading software updates may involve the transmission of large amounts of data through your service provider's network. Contact your service provider for information about data transmission charges.

Make sure that the device battery has enough power, or connect the charger before starting the update.

If software updates over the air are supported by your network, you may also be able to request updates through the device. See "Phone," p. 36.

■ Phone software updates

Your service provider may send phone software updates over the air directly to your device. This option may not be available on your device.

Warning: If you install a software update, you cannot use the device, even to make emergency calls, until the installation is completed and the device is restarted. Be sure to back up data before accepting installation of an update.

■ My Nokia

Receive free tips and support for your Nokia phone, plus free trial content, interactive demonstrations, a personalised web page, and news about the latest Nokia products and services.

Get the most out of your Nokia phone and register to My Nokia today! For more information and availability in your region, see www.nokia.com/mynokia.

■ Download content

You may be able to download new content (for example, themes) to your phone (network service).

For the availability of different services, pricing, and tariffs, contact your service provider.

■ Nokia support

Check www.nokia.com/support or your local Nokia website for the latest guides, additional information, downloads, and services related to your Nokia product.

The website provides information on the use of Nokia products and services. If you need to contact Nokia Care services, see the list of local Nokia Care contact centres at www.nokia.com/customerservice.

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

1. Get started

■ Insert SIM card, memory card and battery

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

Insert the SIM card

1. With the back of the phone facing you, remove the back cover (1-2).

2. To release the SIM card holder, gently pull the locking clip of the card holder, and open it (3-4).

3. Insert the SIM card (5-6). Ensure that the SIM card is properly inserted with the gold-coloured contact area on the card facing down.

4. Close the SIM card holder, and pull it until it locks into place (7).
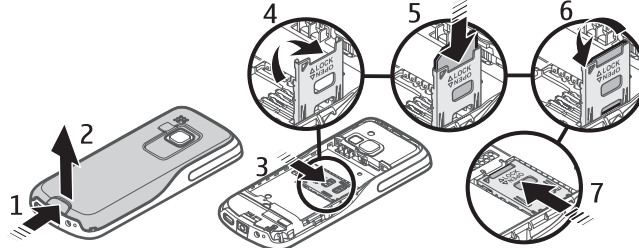
Insert the memory card and battery

1. To insert the memory card, press it into the slot until it locks into place (1).

2. Ensure the card is properly inserted with the gold-coloured contact area on the card facing down (2).

3. Observe the battery contacts and insert the battery (3-4).

4. Replace the back cover (5-6).
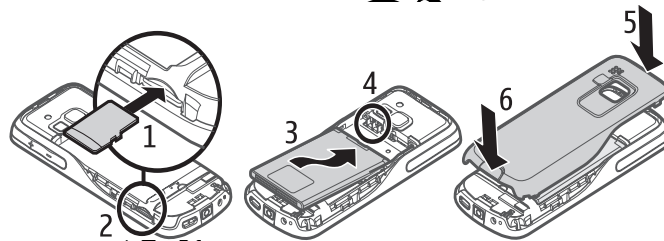
■ Charge the battery

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

Charging the BL-4U battery with the AC-8 charger takes approximately 1 hour 30 minutes while the phone is in the standby mode.

1. Connect the charger to a wall socket.

2. Connect the lead from the charger to the charger connector at the bottom of your phone.

If the battery is completely discharged, it may take several minutes before the charging indicator appears on the display or before any calls can be made.
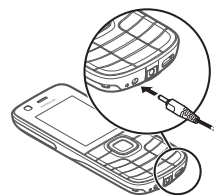
■ microSD card

You can save data such as ringing tones, themes, tones, images, and video clips on a compatible microSD card.

It is possible to remove or replace the microSD card during phone operation without switching the phone off.

Your phone supports microSD cards up to 4 GB.

Use only compatible microSD cards approved by Nokia for use with this device. Nokia uses approved industry standards for memory cards, but some brands may not be fully compatible with this device. Incompatible cards may damage the card and the device and corrupt data stored on the card.

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

■ Switch the phone on and off

1. Press and hold the power key.

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

When you switch on your phone for the first time, and the phone is in the standby mode, you are asked to obtain the configuration settings from your service provider (network service). Confirm or decline the query. See "Configuration," p. 38, and "Configuration settings service," p. 14.
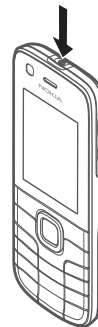
■ Set the time, zone, and date

When you switch on your phone for the first time, the phone is in the standby mode, and you are asked to set the time and date. Fill in the fields, and select **Save**.

To access *Date and time* later, select **Menu** > *Settings* > *Date and time* > *Date & time settings*, *Date and time format*, or *Auto-update of time* (network service) to change the time, time zone, and date settings.

■ Configuration settings service

To use some of the network services, such as mobile internet services, MMS, Nokia Xpress audio messaging, or remote internet server synchronisation, your phone needs the correct configuration settings. For more information on availability,

contact your network operator, service provider, nearest authorised Nokia dealer, or see the support area on the Nokia website, www.nokia.com/support.

When you receive the settings as a configuration message, the settings are not automatically saved and activated. *Configuration settings received* is displayed. Select **Show** > **Save**. If required, enter the PIN code supplied by the service provider.

■ Antenna

Your device may have internal and external antennas. As with any radio transmitting device, avoid touching the antenna area unnecessarily while the antenna is transmitting or receiving. Contact with such an antenna affects the communication quality and may cause the device to operate at a higher power level than otherwise needed and may reduce the battery life.

■ Wrist strap

Remove the battery cover of the phone. Attach the wrist strap (1). Replace the back cover (2-3).
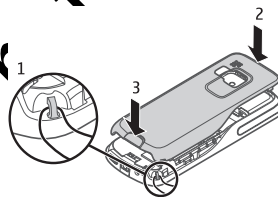
■ Keys and parts

1. Front camera lens
2. Earpiece
3. Display
4. Left selection key
5. Right selection key
6. Call key
7. End key
8. Middle selection key
9. Keypad
10. Navi™ key (hereafter referred to as scroll key)
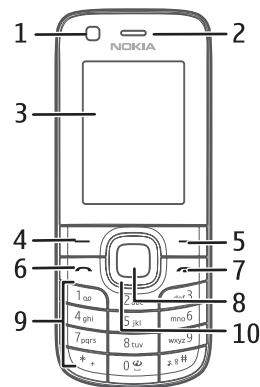
11. Microphone

12. Charger connector

13. Enhancements connector

14. USB connector

15. Camera lens

16. Camera flash

17. Power key

18. Loudspeaker

19. Volume up/PTT

20. Volume down
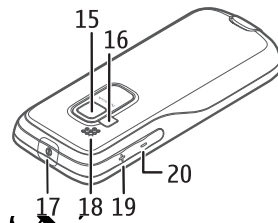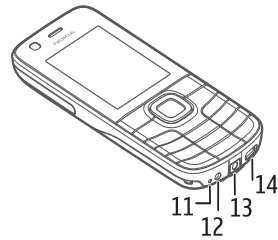
■ Standby mode

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

1. 3G indicator

2. Signal strength of the cellular network

3. Battery charge level

4. Indicators. See "Indicators," p. 16.

5. Name of the network or the operator logo

6. Clock

7. Display

8. Left selection key. By default, this is **Go to** that takes you to a list of shortcuts. See "Left and right selection key," p. 33

9. Middle selection key, shown as **Menu**.

10. Right selection key. By default, this is **Names** that takes you to your saved contacts. See "Left and right selection key," p. 33.
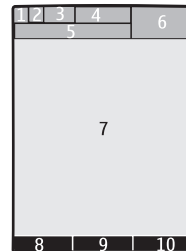
Indicators

✉   You have unread messages.

☎	You missed a call. See "Log," p. 31.
⌐0	The keypad is locked. See "Access codes," p. 10.
⋊	The phone is silent when an incoming call or text message is received. See "Tones," p. 32.
⌇	The alarm clock is activated.
G , E	The packet data connection mode, **Always online** is selected and the packet data service is available.
ⓖ , Ⓔ	A GPRS or EGPRS connection is established.
ⓖ , Ⓔ	The GPRS or EGPRS connection is suspended (on hold).
ⓑ	Bluetooth is activated. See "Bluetooth wireless technology," p. 34.
ⓒ	You have a new unread item in your NFC Inbox. See "Share or read service tags," p. 19.
⊞	Indicates an item can be shared using NFC. See "Share or read service tags," p. 19.

■ Flight profile

Use the flight profile in radio sensitive environments, such as on-board aircraft or in hospitals, to deactivate all radio frequency transmitters. When the flight profile is active, ✈ is displayed.

Select **Menu** > *Settings* > *Profiles* > *Flight* > *Activate* or *Personalise*.

To set the phone to ask every time it is switched on whether to use the flight profile, select **Menu** > *Settings* > *Phone* > *Flight query* > *On* or *Off*.

To deactivate the flight profile, select any other profile.

> **Warning:** With the flight profile you cannot make or receive any calls, including emergency calls, or use other features that require network coverage. To make calls, you must first activate the phone function by changing profiles. If the device has been locked, enter the lock code. If you need to make an emergency call while the device is locked and in the flight profile, you may be also able to enter an official emergency number programmed in your device in the lock code field and select 'Call'. The device will confirm that you are about to exit flight profile to start an emergency call.

2. Near Field Communication

■ NFC

Near Field Communication (NFC) is a wireless connectivity technology that enables two-way communication between electronic devices. You can perform contactless transactions, access digital content, and connect devices with a single touch.

NFC operates over a distance of a few centimeters. NFC technology is supported by leading mobile device manufacturers and is compatible with the majority of available non-contact payment and ticketing card infrastructures.

To change your NFC device name, select **Menu** > *NFC* > *NFC device name*. The NFC device name is used by other NFC devices to recognize your phone.

For more information about NFC, select **Menu** > *NFC* > *NFC Introduction*.

■ NFC detection

To switch NFC on or off, select **Menu** > *NFC* > *NFC settings*.

To save battery power, your device automatically switches off the screen backlight and sets NFC to standby mode. Any action on the device re-activates the screen backlight and NFC.

> **Note:** When Flight mode is activated, only NFC card applications and services can be used.

To use NFC, switch on the phone and activate the NFC setting, if disabled. Touch the service tag or other NFC device with the detection area.

The reading range is typically 0 to 3 centimetres.

When a tag or device is recognised, corresponding information is displayed.
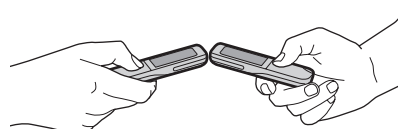
■ Share to device

Select **Menu** > *NFC* > *Share to device* and select the desired option.

With sharing enabled, you can send a bookmark, business card, call request, alarm alert, calendar note, gallery item, profile, radio station, note, or to-do note.

■ Service tags

A tag may contain a shortcut such as an SMS-based service, a URL of an internet-based service, a business card, or a phone number of a telephone service.

This Nokia NFC phone is compatible with non battery-powered (passive) tags. Use the following tag types: MIFARE (Standard, Standard 4k, Ultralight, and DESFire), Sony FeliCa (non-secure), and Innovision (Jewel read-only and Topaz). Tags may be available from these manufacturers or from a local supplier. You may also use other ISO14443-4 compliant tags or cards.

Performance of compatible tags and cards may vary.
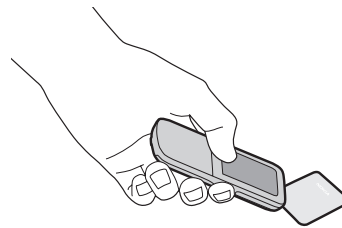
■ Share or read service tags

Select **Menu** > *NFC* > *Share to tag*. Scroll to the desired option, select **Share**, and touch a service tag.

To read a service tag, touch a tag with the phone.

Touch a service tag with your device to enable video streaming or bluetooth connection or receive a business card, SMS message, call request, bookmark, calendar note, to-do note, alarm alert, note, or content shortcut.

To access NFC received items or card applications, select **Menu** > *NFC* > *Inbox* or *Cards*.

The device memory limits the amount of tag information that can be stored. To free memory space, delete received items from the NFC Inbox.

It is possible to share the same information repeatedly to different service tags.

⬛➜ **Note:** When sharing to a service tag, information previously written to the service tag is automatically overwritten.

To share an item, you may also highlight the item on your device, and select **Options** > **Share**.

■ Payment and ticketing

Using your service provider's compatible payment or ticketing services with this device requires a service subscription with your service provider and the installation of your service provider's application.

The service provider may be your bank, or for public transportation, your local public transport operator.

Payment and ticketing applications and services are provided by third parties. Nokia does not provide any warranty or take any responsibility for any such applications and services including end-user support, functionality or any monetary transactions or loss of monetary value. Do not rely solely on such applications and services as means of payment or ticketing.

Contact your service provider before providing your device for repair or maintenance to ensure the availability of the payment or ticketing services after repair or maintenance. Handle your device with similar care as you handle your payment cards. Keep the device safe and in case of loss or theft of the device immediately contact your service provider.

For any questions about payment or ticketing applications and services, contact your service provider.

Card activation

When your phone is placed on an external NFC reader, the applicable card application becomes accessible. Depending on the card availability settings, confirmation or a passcode may be requested before access is granted.

To set the activation level, select **Menu** > *NFC* > *NFC settings* > *Cards availability*. Select *Always* to allow payment or ticketing for card applications without confirmation. Select *By confirmation* or *With passcode* to allow transactions with confirmation or only after entering a passcode.

A card application remains active for approximately 60 seconds after confirmation or after entering the passcode. Touch the external reader within this active time to perform a transaction.

To change the card passcode, select **Menu** > *NFC* > *NFC settings* > *Cards passcode*.

> **Important:** If an incorrect passcode is entered 10 times, you can no longer use card applications and services with this device. Your device will require service and additional charges may apply. For assistance, please first contact your nearest Nokia Care point.

3. Calls

■ Make a voice call

Do one of the following:

* Enter the phone number, including the area code if required, and press the call key.

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

* To list previously called numbers, press the call key once. To call a number select it, and press the call key.

* Call a number saved in *Contacts*. See "Contacts," p. 29.

To adjust the volume during a call, press the volume key up or down.

■ Answer or reject a voice call

To answer a call, press the call key. To end the call, press the end key.

To reject a call, press the end key.

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

■ Speed dialling

To assign a number to one of the speed-dialling keys, **3** to **9**:

1. Select **Menu** > *Contacts* > *Speed dials*.
2. Scroll to the speed-dialling number that you want.
3. Select **Assign**, or if a number has already been assigned to the key, select **Options** > *Change*.
4. Select **Search** and the contact you want to assign.

If the speed dialling function is deactivated, the phone asks whether you want to activate it.

Select **Menu** > *Settings* > *Call* > *Speed dialling* > *On* or *Off*.

To call a number, press and hold a speed-dialling key until the call begins.

■ Voice dialling

Make a phone call by saying a name that is saved in Contacts. Voice commands are language-dependent, so before voice dialling, select **Menu** > *Settings* >

Phone > *Voice recognition* > *Recognition lang.*, and your language. Complete the *Voice recog. training* from the instructions on the display.

Before using voice tags, note the following:

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

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

2. Say the name of the contact you want to call. If the voice recognition is successful, a list with matches is shown. The phone plays the voice command of the first match on the list. If the match is incorrect, scroll to another entry.

■ Options during a call

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

Possible options may include conference calls, video sharing and call waiting.

Call waiting

Select **Menu** > *Settings* > *Call* > *Call waiting* > *Activate* to receive notification of an incoming call while you have a call in progress (network service).

To answer a 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.

■ Make a call using NFC

Touch a service tag containing a call request with the NFC detection area. See "NFC detection," p. 18. The phone displays the callback number. Select **Call** to call the number, or **Exit** to discard. To share a call request, see "Share or read service tags," p. 19.

■ Make a video call

When you make a video call, you send a real-time video, recorded by the camera on the front of your phone, to the call recipient.

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

1. To start a video call in standby mode, enter the phone number or select **Contacts** and a contact.

2. Press and hold the call key, or select **Options** > *Video call*.
   Starting a video call may take a while. If the call is unsuccessful, you are asked if you want to try a voice call or send a message instead.

   To adjust the volume during a call, press the volume key up or down.

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

During extended operation such as an active video call and high speed data connection, the device may feel warm. In most cases, this condition is normal. If you suspect the device is not working properly, take it to the nearest authorised service facility.

4. Write text

You can enter text using traditional or predictive text input. Select and hold **Options** to switch between traditional text input, [icon], and predictive text input, [icon]. Not all languages are supported by predictive text input.

The character cases are indicated by [Abc], [abc], and [ABC]. To change the character case, press **#**. To change from the letter to number mode, [123], press and hold **#**, and select *Number mode*. To change from the number to the letter mode, press and hold **#**.

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

■ Traditional text input

Press a number key **1** to **9** repeatedly until the desired character appears. The characters available depend on the selected language. Press **0** to create a space. Press **1** to display the most common punctuation marks and special characters.

■ Predictive text input

Predictive text input is based on a built-in dictionary to which you can add new words.

1. Start writing a word using keys from **2** to **9**. The phone displays * or the entered letters as underlined text.

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

   If the word is not correct, press * repeatedly, and select the word from the list.

If ? 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**. Enter the word using traditional text input, and select **Save**.

To write compound words, enter the first part of the word, and scroll right to confirm it. Write the last part of the word, and confirm the word.

5. Messaging

■ Write and send a text message

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

2. Enter one or more phone numbers in the *To:* field. To retrieve a phone number from *Contacts*, select **Add**.

3. Write your message in the *Text:* field.

   To use a text template, scroll down, and select **Insert**.

4. Select **Send**.

■ Write and send a multimedia message

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

2. Enter one or more phone numbers or e-mail addresses in the *To:* field. To retrieve a phone number or e-mail address from *Contacts*, select **Add**.

3. Write your message. To add a file, scroll down, and select **Insert**.

4. To view the message before sending it, select **Options** > *Preview*.

5. Select **Send**.

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

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

To check availability and to subscribe to the multimedia messaging service (MMS), contact your service provider.

■ Read and reply to a message

1. To view a received message, select **Show**.

   To read the message later, select **Menu** > *Messaging* > *Inbox*.

2. To reply to a message, select **Reply**. Write the reply message, and select **Send**.

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

■ Nokia Xpress audio messaging

You can use the multimedia messaging service (MMS) to create and send an audio message. MMS must be activated before you can send audio messages.

1. Select **Menu** > *Messaging* > *Create message* > *Audio message*. The recorder opens.

2. Speak your message.

3. Enter one or more phone numbers in the *To:* field, or select **Add** to retrieve a number.

4. Select **Send**, or press the call key.

To open a received audio message, select **Play**. If more than one message is received, select **View** > **Play**. To listen to the message later, select **Exit**.

■ Flash messages

Select **Menu** > *Messaging* > *Create message* > *Flash message*. Enter the recipient's phone number, and write your message.

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

■ E-mail application

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

To use e-mail on your phone, you need a compatible e-mail system.

You may receive the e-mail settings as a configuration message. For more information, contact your network operator or service provider.

E-mail setup

The e-mail setup wizard starts automatically if no e-mail settings are defined in the phone. To start the setup for an additional account, select **Menu** > *Messaging* and the existing e-mail account. Select **Options** > *Add mailbox*. Follow the instructions on the display.

The e-mail application requires an internet access point without a proxy. WAP access points normally include a proxy and do not work with the e-mail application.

Write and send e-mail

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

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

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

2. Enter the recipient's e-mail address, the subject, and the e-mail message. To attach a file, select **Options** > *Insert*.

3. Select **Send**.

To send an e-mail from a draft folder, select **Menu** > *Messaging* > *Drafts*, the desired message, and **Send**.

Download e-mail

1. To download e-mail messages, select **Menu** > *Messaging*.

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

   The e-mail application only downloads e-mail headers initially.

2. Select an e-mail and press **Open** to download the complete message.

Read and reply to e-mail

1. Select **Menu** > *Messaging*, the account name, and the desired message.

2. To reply to an e-mail, select **Options** > *Reply*. Confirm or edit the e-mail address and subject, and write your reply.

3. Select **Send**.

   To end the e-mail session, select **Options** > *Disconnect*.

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

■ Instant messaging

With instant messaging (IM) you can send short text messages to online users. You must subscribe to a service and register with the IM service you want to use. For more information about signing up for IM services, contact your service provider.

■ Voice messages

To call your voice mailbox, select **Menu** > *Messaging* > *Voice messages* > *Listen to voice msgs.* To enter, search for, or edit your voice mailbox number, select *Voice mailbox no.*

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

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

■ Video messages

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

To call your video mailbox, select **Menu** > *Messaging* > *Video messages* > *View video msgs.*, or press and hold **2.** To enter, search for, or edit your video mailbox number, select *Video mailbox no.*

■ Info messages

Select **Menu** > *Messaging* > *Info messages* to receive messages from your service provider (network service). For more information, contact your service provider.

■ Service commands

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

■ Message settings

General settings

General settings are common for text and multimedia messages.

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

Save sent messages — to save the sent messages in the *Sent items* folder

Overwriting in Sent — to overwrite old sent messages with new ones when the message memory is full. This setting is shown only if you selected *Save sent messages.*

Favourite recipient — to define easily available message recipients or groups when sending messages

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Font size — to select the font size used in messages

Graphical smileys — to replace character-based smileys with graphical ones

Text messages

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

Delivery reports — to request delivery reports for your messages (network service)

Message centres — to set the phone number and name of the message centre that is required for sending text messages. You receive this number from your service provider.

Msg. centre in use — to select the message centre in use

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

Messages sent via — to select the format of the message to be sent (network service)

Use packet data — to send text messages through a packet data connection, if available

Character support — to select how characters in messages are shown. To show all characters, select *Full*. If you select *Reduced*, characters with accents and other marks may be converted to other characters.

Rep. via same centre — to allow a message recipient to send you a reply using your message centre (network service)

Multimedia messages

You may receive the settings as a configuration message. See "Configuration settings service," p. 14. You can also enter the settings manually. See "Configuration," p. 37.

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

Delivery reports — to request delivery reports for your messages (network service)

MMS creation mode — to restrict or allow various types of multimedia to be added to messages

Image size in MMS — to set the image size in multimedia messages

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

Allow MMS receptn. — to receive or block multimedia messages. If you select *In home network*, you can only receive multimedia messages when you are inside your home network. The availability of this menu depends on your phone.

Incoming MMS msgs. — to decide how multimedia messages are retrieved.

Allow adverts — to receive or reject advertisements.

Configuration sett. — select *Configuration* to view the configurations that support multimedia messaging. Select a service provider, *Default*, or *Personal config.* for multimedia messaging. Select *Account* and an MMS account contained in the active configuration settings.

E-mail messages

You may receive the settings as a configuration message. See "Configuration settings service," p. 14. You can also enter the settings manually. See "Configuration," p. 37.

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

New e-mail notif. — to receive a notification of new mail

Allow mail reception — to receive e-mail in a foreign network or only in your home network

Reply with orig. msg. — to include the original message in the reply

Image size in e-mail — to select the size of images in e-mail

Edit mailboxes — to add new mailboxes or edit the one in use

Service messages

Select **Menu** > *Messaging* > *Message settings* > *Service messages* to activate service messages and to set up preferences related to service messages.

6.   Contacts

You can save names and phone numbers (contacts) to the phone and SIM card memory.

The phone memory can save contacts with additional details. You can also save an image for a limited number of contacts.

The SIM card memory can save a name with one phone number attached to it. The contacts saved in the SIM card memory are indicated by 　.

To synchronise your contacts from a PC, see "Connectivity," p. 34.

■ Save names and phone numbers

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

■ Add contact details

Search for the contact to which you want to add a detail, select **Details** > **Options** > *Add detail*, and from the available options. In the phone memory, you can save different types of phone numbers, a tone or a video clip, and short text items for a contact.

Select **Menu** > *Contacts* > *Settings*, and ensure that the *Memory in use* is *Phone* or *Phone and SIM.*

■ Search for a contact

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

■ Copy or move contacts

You can move and copy contacts between the phone memory and the SIM card memory. The SIM card can only save contacts with one phone number.

To move or copy all contacts, select **Menu** > *Contacts* > *Move contacts* or *Copy contacts.*

To move or copy individual contacts, select **Menu** > *Contacts* > *Names.* Scroll to the contact, and select **Options** > *Move contact* or *Copy contact.*

To move or copy multiple contacts, select **Menu** > *Contacts* > *Names.* Scroll to a contact, and select **Options** > *Mark.* Mark the other contacts, and select **Options** > *Move marked* or *Copy marked.*

■ Edit contacts

Select **Menu** > *Contacts* > *Names.* Scroll to the contact, and select **Options** > *Edit,* and scroll to the details you want to change.

■ Groups

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

■ Business cards

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

To send a business card, search for the contact whose information you want to send, and select **Details** > **Options** > *Send business card*.

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

■ Contact settings

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

Memory in use — See "Add contact details," p. 30

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

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

Font size — to set the font size for the contact list

Memory status — to view the free and used memory capacity

7. Log

To view the information on your calls, messages, data, and synchronisation, select **Menu** > *Log* and the desired item.

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

8. Settings

■ Profiles

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

Activate — to activate the selected profile

Personalise — to customise the profile with ringing tones, ringing volume, vibrating alerts, light effects, and message alert tones.

Timed — to set the profile to be active for a certain time. After this time the previous profile becomes active.

Share — to share a profile using NFC.

■ Themes

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

Select theme — to set a theme. Open the *Themes* folder, and select a theme.

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

■ Tones

Select **Menu** > *Settings* > *Tones* to change the tone settings of the selected profile.

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

■ Display

To personalise your display view, adjust the display settings.

Standby mode settings

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

Wallpaper — to add a background image for the standby modes

Active standby — to use the active standby mode

Standby font colour — to select the text font colour in the standby mode

Navigation key icons — to display the icons of the scroll key shortcuts in the standby mode when active standby mode is deactivated

Notification details — to display details for missed call and messages

Screen saver — to display a shifting pattern or image when no function of the phone is used for a certain time

Power saver — to save battery power, a digital clock is displayed when no function of the phone is used for a certain time

Sleep mode — to save battery power, the display turns black when no function of the phone is used for a certain time

Font size — to set the font size for messaging, contacts, and web pages

Operator logo — to display or hide the operator logo, if available

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

■ Date and time

Select **Menu** > *Settings* > *Date and time* > *Date & time settings*, *Date and time format*, or *Auto-update of time* (network service) to change the time, time zone, and date settings.

■ My shortcuts

Personal shortcuts give you quick access to frequently used phone functions.

Left and right selection key

To change the function assigned to the left or right selection key, select **Menu** > *Settings* > *My shortcuts* > *Left selection key* or *Right selection key* and the function.

In the standby mode, if the left selection key is **Go to**, to activate a function, select **Go to** > **Options** and from the following options:

Select options — to add or remove a function

Organise — to rearrange the functions

Scroll key

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

Active standby key

To select a function from the list, select **Menu** > *Settings* > *My shortcuts* > *Active standby key*.

■ Synchronisation and backup

Select **Menu** > *Settings* > *Sync and backup* and from the following options:

Phone switch — Synchronise or copy selected data between two phones using Bluetooth technology.

Create backup — Create a backup of selected content to your memory card or to an external device.

Restore backup — Select a backup file stored on the memory card or an external device, and restore it to the phone.

Server sync — Synchronise or copy data between your phone and another device, PC, or network server (network service).

■ Connectivity

You can connect your phone to a compatible device using Bluetooth wireless technology or a USB data cable.

Bluetooth wireless technology

Bluetooth technology allows you to connect your phone to a compatible Bluetooth phone within a 10 metre (33 feet) range.

This device is compliant with Bluetooth Specification 2.0 supporting the following profiles: advanced audio distribution, audio video remote control, dial-up networking, file transfer, generic access, generic object exchange, generic audio/video distribution, hands-free, headset, object push, phonebook access, serial port, service discovery application, and SIM access. 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.

Features using Bluetooth technology increase the demand on battery power and reduce the battery life.

Activate a Bluetooth connection

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

Select *My phone's name,* and enter a name for your phone.

 indicates that Bluetooth is active. Remember that Bluetooth uses battery power and may reduce battery life.

Connect a Bluetooth device

Select **Menu** > *Settings* > *Connectivity* > *Bluetooth* > *Search audio enhanc.* and the device that you want to connect to.

View a list of your Bluetooth connections

Select **Menu** > *Settings* > *Connectivity* > *Bluetooth* > *Active devices.*

Send data to a Bluetooth device

Select **Menu** > *Settings* > *Connectivity* > *Bluetooth* > *Paired devices.* Select the device that you want to connect to, and enter a passcode. To connect to another device, you must agree on a passcode (up to 16 characters) to use. You only use the passcode once to set up the connection and begin transferring data.

If you do not see the device on the list, select **New** to list Bluetooth devices in range.

Hide your Bluetooth device from others

Select **Menu** > *Settings* > *Connectivity* > *Bluetooth* > *My phone's visibility*. Select *Hidden*, or deactivate Bluetooth.

Modem settings

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

To define the settings for connections from your PC:

1. Select **Menu** > *Settings* > *Connectivity* > *Packet data* > *Packet data settings* > *Active access point*, and activate the access point you want to use.

2. Select *Edit active access pt.*, enter a name to change the access point settings, and select **OK**.

3. Select *Packet data acc. pt.*, enter the access point name (APN) to establish a connection to a network, and select **OK**.

4. Establish an internet connection by using your phone as a modem.

See the "Nokia PC Suite,"user guide for more information. If you have set the settings both on your PC and on your phone, the PC settings are used.

Synchronise from a compatible PC

To synchronise data from calendar, notes, and contacts, install Nokia PC Suite on a compatible PC. Use Bluetooth wireless technology or a USB data cable, for the synchronisation, and start the synchronisation from the PC.

Synchronise from a server

To use a remote internet server, subscribe to a synchronisation service. For more information, contact your service provider.

USB data cable

You can use a USB data cable, CA-101, to transfer data between the phone and a compatible PC or a printer supporting PictBridge.

To activate the phone for data transfer or image printing, connect the data cable and select the mode:

Ask on conn. — to set your phone to ask whether to get connected

PC Suite — to use the data cable for Nokia PC Suite

Printing & Media — to use your phone with a PictBridge compatible printer, or to connect your phone to a compatible PC

Data storage — to connect to a PC that does not have Nokia software and use your phone for data storage

To change the USB mode, select **Menu** > *Settings* > *Connectivity* > *USB data cable* and the desired USB mode.

■ Call

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

Call divert — to forward your incoming calls (network service). You may not be able to forward calls if call barring is active. See *Call barring service* in "Access codes," p. 10.

Anykey answer — to answer a call by briefly pressing any key, except the power key, the left and right selection keys, or the end key

Automatic redial — to automatically redial the number if the call fails. The phone tries to call the number a maximum of 10 times.

Video-voice redial — to select whether the phone automatically makes a voice call to the number to which a video call fails

Voice clarity — to enhance speech intelligibility especially in noisy environments

Speed dialling — See "Speed dialling," p. 21.

Call waiting — See "Call waiting," p. 22.

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

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

Outgoing call line — to choose which phone line is set as default. To check availability and costs, and to subscribe to the service, contact your network operator or service provider.

Video sharing — to share your live camera view with the call recipient during an ongoing voice call. To check availability and costs, and to subscribe to the service, contact your network operator or service provider.

■ Phone

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

Language settings — to set the language of your phone, select *Phone language*. *Automatic* selects the language according to the information on the SIM card. To select the USIM card language, select *SIM language*. To set a language for the voice commands, select *Recognition lang.*

Memory status — to view the amount of available phone memory

Automatic keyguard — See "Access codes," p. 10.

Security keyguard — See "Access codes," p. 10.

Voice recognition — to make a phone call by saying the name that is saved in Contacts.

Flight query — See "Flight profile," p. 17.

Welcome note — to write the note that is shown when the phone is switched on

Phone updates — to update your phone software

Network mode — to select both UMTS and GSM mode. You cannot access this option during an active call.

Operator selection — to automatically or manually select one of the cellular networks available in your area.

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

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

■ Enhancements

This menu or the following options are shown only if the phone is connected to a compatible mobile enhancement.

Select **Menu** > *Settings* > *Enhancements*, and select an enhancement and option.

■ Configuration

You can configure your phone with settings that are required for certain services. Your service provider may also send you these settings as a text message.

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

Default config. sett. — to view the service providers saved in the phone, and set a default service provider

Act. def. in all apps. — to activate the default configuration settings for supported applications

Preferred access pt. — 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 support — to download the configuration settings from your service provider

Personal config. sett. — to manually add personal accounts for services, and to activate or delete them. The parameters vary according to the selected service type.

■ Restore factory settings

To restore the phone factory settings, select **Menu** > *Settings* > *Rest. factory sett.* and from the following options:

Restore settings only — to reset all preference settings without deleting any personal data

Restore all — to reset all preference settings, and delete all personal data, such as contacts, messages, media files, and activation keys

9. Operator menu

This menu lets you access services provided by your network operator. For more information, contact your network operator. The operator can update the menu with a service message.

10. Gallery

Manage various files stored in the phone memory or on a memory card.

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.

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

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

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

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

■ Digital rights management

Content owners may use different types of digital rights management (DRM) technologies to protect their intellectual property, including copyrights. This device uses various types of DRM software to access DRM-protected content. With this device you can access content protected with WMDRM 10, OMA DRM 2.0, OMA DRM 1.0. If certain DRM software fails to protect the content, content owners may ask that such DRM software's ability to access new DRM-protected content be revoked. Revocation may also prevent renewal of such DRM-protected content already in your device. Revocation of such DRM software does not affect the use of content protected with other types of DRM or the use of non-DRM-protected content.

Digital rights management (DRM) protected content comes with an associated activation key that defines your rights to use the content.

If your device has OMA DRM-protected content, to back up both the activation keys and the content, use the backup feature of Nokia PC Suite. Other transfer methods may not transfer the activation keys which need to be restored with the content for you to be able to continue the use of OMA DRM-protected content after the device memory is formatted. You may also need to restore the activation keys in case the files on your device get corrupted.

If your device has WMDRM protected content, both the activation keys and the content will be lost if the device memory is formatted. You may also lose the activation keys and the content if the files on your device get corrupted. Losing the activation keys or the content may limit your ability to use the same content on your device again. For more information, contact your service provider.

■ Print images   Xpress**Print**

Your phone supports Nokia XpressPrint to print images in JPG format. To connect your phone to a compatible printer, use the CA-101 USB data cable or send the image using Bluetooth connectivity to a printer supporting Bluetooth technology. See "Connectivity," p. 34.

You may also connect the phone to a printer supporting Bluetooth technology by touching a service tag on the printer containing the Bluetooth connection data with the NFC detection area. See "Near Field Communication," p. 18.

Select the image you want to print and **Options** > *Print*.

11. Media

Capture images or record video clips with the built-in 2.0-megapixel camera.

■ Camera

The camera produces images in JPG format, and you can digitally zoom up to eight times.

Capture an image

Select **Menu** > *Media* > *Camera* > **Capture**. To capture another image, select **Back**. To send the image as a multimedia message, select **Send**. Your phone saves the image in *Gallery* > *Images*.

To zoom, press the volume key up or down.

■ Video

You can record video clips in 3GP or MP4 format. The length and file size of the clips may vary depending on the selected quality and available memory.

To set the quality of your video clips, select **Menu** > *Media* > *Video* > **Options** > *Settings* > *Video clip quality* > *High*, *Normal*, or *Basic*.

To select the file size limit, select **Menu** > *Media* > *Video* > **Options** > *Settings* > *Video clip length*.

Record a video clip

Select **Menu** > *Media* > *Video* > **Record**. To zoom, press the volume key up or down.

Camera and video options

To use a filter, select **Options** > *Effects*.

To adapt the camera to the light conditions, select **Options** > *White balance*.

To change other camera and video settings and to select where images and video clips are stored, select **Options** > *Settings*.

■ Music player

Your phone includes a music player for listening to music tracks, recordings, or other MP3, MPEG4, AAC, eAAC+ or WMA music files that you have downloaded from the web or transferred to the phone with Nokia PC Suite.

To open the music player, select **Menu** > *Media* > *Music player*.

To open a list of all stored songs, select *All songs* > **Open**, or scroll right.

To create or manage playlists, select *Playlists* > **Open**, or scroll right.

To open folders with *Artists*, *Albums*, or *Genres*, scroll to the one you want, and select **Expand**, or scroll right.

To open a video clip list stored in your phone, select *Videos* > **Open**, or scroll right.

To customise the music player and equaliser theme, select **Menu** > *Media* > *Music player* > *Go to Music player* > **Options** > *Settings* > *Music player theme*.

Music menu

Access stored music and video files, download music or video clips from the web, or view compatible video streams from a network server (network service).

Play music

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.

When you open the *Music player* menu, the details of the first track on the default playlist are shown.

To play, select ▶.

To adjust the volume, press the volume key up or down.

To pause the playing, select ▮▮.

To stop the playing, press and hold the end key.

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

To rewind the current track, select and hold |◀◀. To fast forward the current track, select and hold ▶▶|.

Radio

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

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

Select **Menu** > *Media* > *Radio*. To use ▲, ▼, ◀◀, or ▶▶ on the display, scroll to the key you want, and select it.

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Tune-in and save radio stations

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

2. To save a station, select **Options** > *Save station.*

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

Listen to the radio

1. To scroll to a radio station, select ▲ or ▼, or press the headset key.

2. To select a radio station location, briefly press the corresponding number keys.

3. Select **Options** and from the following:

Stations — to select a saved station from the list. It is only possible to enter the station list if the selected station is saved.

Search all stations — to search for all radio stations that the phone can receive

Set frequency — to enter the frequency of a radio station

Settings — to change the Radio Data System (RDS) settings. When RDS is on, you can select *Auto-freq. change on* to automatically change to another frequency containing the same radio station when the original signal becomes weak.

■ Voice recorder

Record pieces of speech, sound, or an active call, and save them in Gallery.

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

Select **Menu** > *Media* > *Voice recorder.* To use ● , ▐▐ , or ■ on the display, scroll left or right.

Record sound

1. Select ● , or, during a call, select **Options** > *Record.* While recording a call, all parties to the call hear a faint beeping sound. To pause the recording, select ▐▐ .

2. To end the recording, select ■ . The recording is saved in Recordings in Gallery.

Select **Options** to play or send the last recording, to access the list of recordings, or to select the memory and the folder to store the recordings.

■ Equaliser

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

To activate an equaliser set, scroll to one of the sets, and select **Activate**.

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

■ Stereo widening

Select **Menu** > *Media* > *Stereo widening* > *On* or *Off* to improve the stereo sound.

12. Push to talk

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

With Push to talk (PTT) you may have a conversation with one person or with a group of people (channel) having compatible devices. You have to subscribe to a service and register with a PTT service. For more information, contact your service provider.

13. Organiser

■ Alarm clock

Select **Menu** > *Organiser* > *Alarm clock.*

To set an alarm, select *Alarm time*, and enter a time.

To set an alarm to repeat on selected weekdays, select *Repeat alarm*. If you select the radio as the alarm tone, connect the headset to the phone.

To set a snooze time-out, select *Snooze time-out* and the length of time.

Stop the alarm

The alarm sounds an alert tone even if the phone is switched off. To stop the alarm, select **Stop**. If you allow the alarm to sound for a minute or select **Snooze**, the alarm stops for the *Snooze time-out*, then resumes.

■ Calendar

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

The current day is framed. If there are any notes set for the day, the day is in bold. 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 notes.*

To set the date, time, time zone, calendar tone, date or time format, default view, or the first day of the week, select *Settings*. To set the phone to delete old notes automatically after a specified time, select *Auto-delete notes*.

To synchronise your calendar from a PC, see "Connectivity," p. 34.

Make a calendar note

Select **Menu** > *Organiser* > *Calendar*. Scroll to the date, and select **Options** > *Make a note*. Then select the note type, and fill in the fields.

Note alarm
At the relevant time, the phone displays the note and sounds a tone, if you set one. If ☎ is displayed, press the call key to call a number. To stop the alarm and to view the note, select **View**. If you let the alarm sound for a minute or select **Snooze**, the alarm stops for the snooze time-out, then resumes.

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

■ To-do list

Select **Menu** > *Organiser* > *To-do list*.

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

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

To share a note using NFC, select **Share**.

■ Notes

Select **Menu** > *Organiser* > *Notes* to write and send notes.

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

To share a note using NFC, select **Share**.

To synchronise your notes from a PC, see "Connectivity," p. 34.

■ Calculator

Select **Menu** > *Organiser* > *Calculator*. When 0 is displayed, enter the first number in the calculation. Press **#** for a decimal point. Scroll to the desired operation or function. Enter the second number. Repeat this sequence as many times as it is necessary. To start a new calculation, select and press **Clear** as many times as necessary until 0 is displayed.

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

■ Countdown timer

1. To activate the countdown timer, select **Menu** > *Organiser* > *Countd. timer* > *Normal timer*, enter the alarm time, and write a note that is displayed when the time expires. To change the countdown time, select *Change time*.

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

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

Interval timer
1. To have an interval timer with up to 10 intervals started, first enter the intervals.

2. Select **Menu** > *Organiser* > *Countd. timer* > *Interval timer*.

3. To start the timer, select *Start timer* > **Start**.

■ Stopwatch

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

Split timing — to take intermediate times. To reset the time without saving it, select **Stop** > **Options** > *Reset*.

Lap timing — to take lap times

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

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

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

To set the stopwatch timing in the background, press the end key. Select *Continue* to view the timing that you have set in the background.

14. Applications

■ Launch a game or application

Select **Menu** > *Applications* > *Games* or *Collection*. Scroll to the desired item, and select **Open**.

■ Application options

To define settings, select **Menu** > *Applications* > **Options** > *Application settings* and select from the available options.

15. Web

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

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

For availability of these services, pricing, tariffs, and instructions, contact your service provider.

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

■ Connect to a service

Ensure that the correct configuration settings of the service are activated.

To select the settings for connecting to the service:

1. Select **Menu** > *Web* > *Settings* > *Configuration settings*.
2. Select *Configuration*. Only the configurations that support browsing service are shown. Select a service provider, *Default*, or *Personal config.* for browsing.

   You may receive the configuration settings required for browsing as a configuration message from the service provider that offers the service that you want to use.
3. Select *Account* and a browsing service account contained in the active configuration settings.
4. Select *Displ. term. window* > *Yes* to perform manual user authentication for intranet connections.

Make a connection to the service in one of the following ways:

- Select **Menu** > *Web* > *Home*; or in the standby mode, press and hold **0**.
- To select a bookmark of the service, select **Menu** > *Web* > *Bookmarks.*
- To select the last URL, select **Menu** > *Web* > *Last web addr.*
- To enter the address of the service, select **Menu** > *Web* > *Go to address.* Enter the address of the service, and select **OK**.

■ Browse pages

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

■ Bookmarks

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

To add a bookmark while browsing, select **Options** > *Add bookmark*; or in the standby mode, select **Menu** > *Web* > *Bookmarks*.

To make a connection to bookmarked page, scroll to a bookmark and select it, or press the call key.

Select **Options** to view, edit, delete, send or share a bookmark.

■ Appearance settings

To personalise the way web pages are displayed on your phone, while browsing, select **Options** > *Other options* > *Appearance settings*; or in the standby mode, select **Menu** > *Web* > *Settings* > *Appearance settings*.

■ Security settings

Cookies and cache

A cookie is data that a site saves in the cache memory of your phone. Cookies are saved until you clear the cache memory.

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

A cache is a memory location that is used to store data temporarily. If you have tried to access or have accessed confidential information requiring passwords, empty the cache after each use. The information or services you have accessed are stored in the cache. To empty the cache, select **Options** > *Other options* > *Clear the cache*; in the standby mode, select **Menu** > *Web* > *Clear the cache*.

Scripts over secure connection

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

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

■ Service inbox

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

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

To set whether you want to receive service messages, select **Menu** > *Web* > *Settings* > *Service inbox sett.* > *Service messages* > *On* or *Off*.

■ 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.

Certificates

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

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

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

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

 is displayed during a connection if the data transmission between the phone and the content server is encrypted.

The security icon does not indicate that the data transmission between the gateway and the content server (or the 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.

1. To make a digital signature, select a link on a web page, for example, the title of a 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.

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

    The text may not fit within a single screen. Therefore, ensure that you scroll through and read all of the text before signing.

3. Select the user certificate you want to use. Enter the signing PIN. The digital signature icon disappears, and the service may display a confirmation of your purchase.

16. SIM services

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

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

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

17. PC connectivity

You can send and receive mail, and access the internet when your phone is connected to a compatible PC through a Bluetooth or a data cable connection. You can use your phone with a variety of PC connectivity and data communications applications.

■ Nokia PC Suite

With Nokia PC Suite, you can manage your music, synchronise contacts, calendar, notes, and to-do notes between your phone and a compatible PC or a remote internet server (network service). You may find more information and PC Suite at www.nokia.com/support or your local Nokia website.

■ 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.

18. Battery and charger information

Your device is powered by a rechargeable battery. The battery intended for use with this device is BL-4U. This device is intended for use when supplied with power from the following chargers: AC-8. 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. Use of an unapproved battery or charger may present a risk of fire, explosion, leakage, or other hazard.

If a battery is being used for the first time or if the battery has not been used for a prolonged period, it may be necessary to connect the charger, then disconnect and reconnect it to begin charging the battery. If the battery is completely discharged, it may take several minutes before the charging indicator appears on the display or before any calls can be made.

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

Unplug the charger from the electrical plug and the device when not in use. Do not leave a fully charged battery connected to a charger, since overcharging may shorten its lifetime. If left unused, a fully charged battery will lose its charge over time.

Always try to keep the battery between 15°C and 25°C (59°F and 77°F). Extreme temperatures reduce the capacity and lifetime of the battery. A device with a hot or cold battery may not work temporarily. Battery performance is particularly limited in temperatures well below freezing.

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.

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.

Do not dismantle, cut, open, crush, bend, deform, puncture, or shred cells or batteries. In the event of a battery leak, do not allow the liquid to come in contact with the skin or eyes. In the event of such a leak, flush your skin or eyes immediately with water, or seek medical help.

Do not modify, remanufacture, attempt to insert foreign objects into the battery, or immerse or expose it to water or other liquids.

Improper battery use may result in a fire, explosion, or other hazard. If the device or battery is dropped, especially on a hard surface, and you believe the battery has been damaged, take it to a service centre for inspection before continuing to use it.

Use the battery only for its intended purpose. Never use any charger or battery that is damaged. Keep your battery out of the reach of small children.

■ 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 authorised Nokia dealer, and inspect the hologram label using the following steps:

Successful completion of the steps is not 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 authorised Nokia Care point or dealer for assistance. Your authorised Nokia Care 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 you look at the hologram on the label, you should see the Nokia connecting hands symbol from one angle and the Nokia Original Enhancements logo when looking from another angle.

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

What if your battery is not authentic?

If you cannot confirm that your Nokia battery with the hologram on the label is an authentic Nokia battery, please do not use the battery. Take it to the nearest authorised Nokia Care 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, see www.nokia.com/battery.

Care and maintenance

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

- Keep the device dry. Precipitation, humidity, and all types of liquids or moisture can contain minerals that will corrode electronic circuits. If your device does get wet, remove the battery, and allow the device to dry completely before replacing it.

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

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

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

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

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

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

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

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

- Use only the supplied or an approved replacement antenna. Unauthorised antennas, modifications, or attachments could damage the device and may violate regulations governing radio devices.

- Use chargers indoors.
- Always create a backup of data you want to keep, such as contacts and calendar notes.
- To reset the device from time to time for optimum performance, power off the device and remove the battery.

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

Disposal

The crossed-out wheeled-bin symbol on your product, literature, or packaging reminds you that all electrical and electronic products, batteries, and accumulators must be taken to separate collection at the end of their working life. This requirement applies to the European Union and other locations where separate collection systems are available. Do not dispose of these products as unsorted municipal waste.

By returning the products to collection you help prevent uncontrolled waste disposal and promote the reuse of material resources. More detailed information is available from the product retailer, local waste authorities, national producer responsibility organizations, or your local Nokia representative. For the product Eco-Declaration or instructions for returning your obsolete product, go to country-specific information at www.nokia.com.

Additional safety information

■ Small children

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

■ Operating environment

This device meets RF exposure guidelines when used either in the normal use position against the ear or when positioned at least 1.5 centimeters (5/8 inch) away from the body. When a carry case, belt clip, or holder is used for body-worn operation, it should not contain metal and should position the device the above-stated distance from your body.

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

Parts of the device are magnetic. Metallic materials may be attracted to the device. Do not place credit cards or other magnetic storage media near the device, because information stored on them may be erased.

■ Medical devices

Operation of any radio transmitting equipment, including wireless phones, may interfere with the functionality of inadequately protected medical devices. Consult a physician or the manufacturer of the medical device to determine if they are adequately shielded from external RF energy or if you have any questions. Switch off your device in health care facilities when any regulations posted in these areas instruct you to do so. Hospitals or health care facilities may be using equipment that could be sensitive to external RF energy.

Implanted medical devices

Manufacturers of medical devices recommend that a minimum separation of 15.3 centimeters (6 inches) should be maintained between a wireless device and an implanted medical device, such as a pacemaker or implanted cardioverter defibrillator, to avoid potential interference with the medical device. Persons who have such devices should:

- Always keep the wireless device more than 15.3 centimeters (6 inches) from the medical device when the wireless device is turned on.
- Not carry the wireless device in a breast pocket.
- Hold the wireless device to the ear opposite the medical device to minimise the potential for interference.
- Turn the wireless device off immediately if there is any reason to suspect that interference is taking place.
- Read and follow the directions from the manufacturer of their implanted medical device.

If you have any questions about using your wireless device with an implanted medical device, consult your health care provider.

Hearing aids

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

■ Vehicles

RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles such as electronic fuel injection systems, electronic antiskid (antilock) braking systems, electronic speed control systems, and air bag

systems. For more information, check with the manufacturer, or its representative, of your vehicle or any equipment that has been added.

Only qualified personnel should service the device or install the device in a vehicle. Faulty installation or service may be dangerous and may invalidate any warranty that may apply to the device. Check regularly that all wireless device equipment in your vehicle is mounted and operating properly. Do not store or carry flammable liquids, gases, or explosive materials in the same compartment as the device, its parts, or enhancements. For vehicles equipped with an air bag, remember that air bags inflate with great force. Do not place objects, including installed or portable wireless equipment in the area over the air bag or in the air bag deployment area. If in-vehicle wireless equipment is improperly installed and the air bag inflates, serious injury could result.

Using your device while flying in aircraft is prohibited. Switch off your device before boarding an aircraft. The use of wireless teledevices in an aircraft may be dangerous to the operation of the aircraft, disrupt the wireless telephone network, and may be illegal.

■ Potentially explosive environments

Switch off your device when in any area with a potentially explosive atmosphere, and obey all signs and instructions. Potentially explosive atmospheres include areas where you would normally be advised to turn off your vehicle engine. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death. Switch off the device at 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 and areas where the air contains chemicals or particles such as grain, dust, or metal powders. You should check with the manufacturers of vehicles using liquefied petroleum gas (such as propane or butane) to determine if this device can be safely used in their vicinity.

■ Emergency calls

Important: This device operates using radio signals, wireless networks, landline networks, and user-programmed functions. If your device supports voice calls over the internet (internet calls), activate both the internet calls and the cellular phone. The device will attempt to make emergency calls over both the cellular networks and through your internet call provider if both are activated. Connections in all conditions cannot be guaranteed. You should never rely solely on any wireless device for essential communications like medical emergencies.

To make an emergency call:
1. If the device is not on, switch it on. Check for adequate signal strength. Depending on your device, you may also need to complete the following:
    - Insert a SIM card if your device uses one.
    - Remove certain call restrictions you have activated in your device.

- Change your profile from offline or flight profile mode to an active profile.

2. Press the end key as many times as needed to clear the display and ready the device for calls.

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

4. Press the call key.

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

■ Certification information (SAR)

This mobile device meets guidelines for exposure to radio waves.

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

The exposure guidelines for mobile devices employ a unit of measurement known as the Specific Absorption Rate or SAR. The SAR limit stated in the ICNIRP guidelines is 2.0 watts/ kilogram (W/kg) averaged over 10 grams of tissue. Tests for SAR are conducted using standard operating positions with the device transmitting at its highest certified power level in all tested frequency bands. The actual SAR level of an operating device can be below the maximum value because the device is designed to use only the power required to reach the network. That amount changes depending on a number of factors such as how close you are to a network base station. The highest SAR value under the ICNIRP guidelines for use of the device at the ear is 0.79 W/kg.

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

Your mobile device is also designed to meet the requirements for exposure to radio waves established by the Federal Communications Commission (USA) and Industry Canada. These requirements set a SAR limit of 1.6 W/kg averaged over one gram of tissue. The highest SAR value reported under this standard during product certification for use at the ear is 0.82 W/ kg and when properly worn on the body is 1.06 W/kg.

APPENDIX

■ A message from the CTIA

Safety is the most important call you will ever make.

A Guide to Safe and Responsible Wireless Phone Use.

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Tens of millions of people in the U.S. today take advantage of the unique combination of convenience, safety and value delivered by the wireless telephone. Quite simply, the wireless phone gives people the powerful ability to communicate by voice--almost anywhere, anytime--with the boss, with a client, with the kids, with emergency personnel or even with the police. Each year, Americans make billions of calls from their wireless phones, and the numbers are rapidly growing.

But an important responsibility accompanies those benefits, one that every wireless phone user must uphold. When driving a car, driving is your first responsibility. A wireless phone can be an invaluable tool, but good judgment must be exercised at all times while driving a motor vehicle--whether on the phone or not.

The basic lessons are ones we all learned as teenagers. Driving requires alertness, caution and courtesy. It requires a heavy dose of basic common sense---keep your head up, keep your eyes on the road, check your mirrors frequently and watch out for other drivers. It requires obeying all traffic signs and signals and staying within the speed limit. It means using seatbelts and requiring other passengers to do the same.

But with wireless phone use, driving safely means a little more. This brochure is a call to wireless phone users everywhere to make safety their first priority when behind the wheel of a car. Wireless telecommunications is keeping us in touch, simplifying our lives, protecting us in emergencies and providing opportunities to help others in need.

When it comes to the use of wireless phones, safety is your most important call.

Wireless phone "Safety Tips"

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

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

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

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

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

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because you are reading or writing and not paying attention to the road or nearby vehicles.

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

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

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

9. Use your wireless phone to call for help. Your wireless phone is one of the greatest tools you can own to protect yourself and your family in dangerous situations--with your phone at your side, help is only three numbers away. Dial 9-1-1 or other local emergency number in the case of fire, traffic accident, road hazard or medical emergency. Remember, it is a free call on your wireless phone!

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

11. Call roadside assistance or a special wireless non-emergency assistance number when necessary. Certain situations you encounter while driving may require attention, but are not urgent enough to merit a call for emergency services. But you still can use your wireless phone to lend a hand. If you see a broken-down vehicle posing no serious hazard, a broken traffic signal, a minor traffic accident where no one appears injured or a vehicle you know to be stolen, call roadside assistance or other special non-emergency wireless number.

Careless, distracted individuals and people driving irresponsibly represent a hazard to everyone on the road. Since 1984, the Cellular Telecommunications Industry Association and the wireless industry have conducted educational outreach to inform wireless phone users of their responsibilities as safe drivers and good citizens. As we approach a new century, more and more of us will take advantage of the benefits of wireless telephones. And, as we take to the roads, we all have a responsibility to drive safely.

The wireless industry reminds you to use your phone safely when driving.

For more information, please call 1-888-901-SAFE.

For updates: http://www.wow-com.com/consumer/issues/driving/
articles.cfm?ID=85

■ Message from the FDA

See http://www.fda.gov/cellphones/ for updated information.

Do wireless phones pose a health hazard?

The available scientific evidence does not show that any health problems are
associated with using wireless phones. There is no proof, however, that wireless
phones are absolutely safe. Wireless phones emit low levels of radiofrequency
energy (RF) in the microwave range while being used. They also emit very low
levels of RF when in the stand-by mode. Whereas high levels of RF can produce
health effects (by heating tissue), exposure to low level RF that does not produce
heating effects causes no known adverse health effects. Many studies of low
level RF exposures have not found any biological effects. Some studies have
suggested that some biological effects may occur, but such findings have not
been confirmed by additional research. In some cases, other researchers have had
difficulty in reproducing those studies, or in determining the reasons for
inconsistent results.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

If there is a risk from these products--and at this point we do not know that there is--it is probably very small. But if you are concerned about avoiding even potential risks, you can take a few simple steps to minimize your exposure to radiofrequency energy (RF). Since time is a key factor in how much exposure a person receives, reducing the amount of time spent using a wireless phone will reduce RF exposure.

If you must conduct extended conversations by wireless phone every day, you could place more distance between your body and the source of the RF, since the exposure level drops off dramatically with distance. For example, you could use a headset and carry the wireless phone away from your body or use a wireless phone connected to a remote antenna

Again, the scientific data do not demonstrate that wireless phones are harmful. But if you are concerned about the RF exposure from these products, you can use measures like those described above to reduce your RF exposure from wireless phone use.

What about children using wireless phones?

The scientific evidence does not show a danger to users of wireless phones, including children and teenagers. If you want to take steps to lower exposure to radiofrequency energy (RF), the measures described above would apply to children and teenagers using wireless phones. Reducing the time of wireless phone use and increasing the distance between the user and the RF source will reduce RF exposure. Some groups sponsored by other national governments have advised that children be discouraged from using wireless phones at all. For example, the government in the United Kingdom distributed leaflets containing such a recommendation in December 2000. They noted that no evidence exists that using a wireless phone causes brain tumors or other ill effects. Their recommendation to limit wireless phone use by children was strictly precautionary; it was not based on scientific evidence that any health hazard exists.

Do hands-free kits for wireless phones reduce risks from exposure to RF emissions?

Since there are no known risks from exposure to RF emissions from wireless phones, there is no reason to believe that hands-free kits reduce risks. Hands-free kits can be used with wireless phones for convenience and comfort. These systems reduce the absorption of RF energy in the head because the phone, which is the source of the RF emissions, will not be placed against the head. On the other hand, if the phone is mounted against the waist or other part of the body during use, then that part of the body will absorb more RF energy. Wireless phones marketed in the U.S. are required to meet safety requirements regardless

of whether they are used against the head or against the body. Either configuration should result in compliance with the safety limit.

Do wireless phone accessories that claim to shield the head from RF radiation work?

Since there are no known risks from exposure to RF emissions from wireless phones, there is no reason to believe that accessories that claim to shield the head from those emissions reduce risks. Some products that claim to shield the user from RF absorption use special phone cases, while others involve nothing more than a metallic accessory attached to the phone. Studies have shown that these products generally do not work as advertised. Unlike "hand-free" kits, these so-called "shields" may interfere with proper operation of the phone. The phone may be forced to boost its power to compensate, leading to an increase in RF absorption. In February 2002, the Federal trade Commission (FTC) charged two companies that sold devices that claimed to protect wireless phone users from radiation with making false and unsubstantiated claims. According to FTC, these defendants lacked a reasonable basis to substantiate their claim.

How does FCC Audit Cell Phone RF?

After FCC grants permission for a particular cellular telephone to be marketed, FCC will occasionally conduct "post-grant" testing to determine whether production versions of the phone are being produced to conform with FCC regulatory requirements. The manufacturer of a cell phone that does not meet FCC's regulatory requirements may be required to remove the cell phone from use and to refund the purchase price or provide a replacement phone, and may be subject to civil or criminal penalties. In addition, if the cell phone presents a risk of injury to the user, FDA may also take regulatory action. The most important post-grant test, from a consumer's perspective, is testing of the RF emissions of the phone. FCC measures the Specific Absorption Rate (SAR) of the phone, following a very rigorous testing protocol. As is true for nearly any scientific measurement, there is a possibility that the test measurement may be less than or greater than the actual RF emitted by the phone. This difference between the RF test measurement and actual RF emission is because test measurements are limited by instrument accuracy, because test measurement and actual use environments are different, and other variable factors. This inherent variability is known as "measurement uncertainty." When FCC conducts post-grant testing of a cell phone, FCC takes into account any measurement uncertainty to determine whether regulatory action is appropriate. This approach ensures that when FCC takes regulatory action, it will have a sound, defensible scientific basis.

FDA scientific staff reviewed the methodology used by FCC to measure cell phone RF, and agreed it is an acceptable approach, given our current understanding of

the risks presented by cellular phone RF emissions. RF emissions from cellular phones have not been shown to present a risk of injury to the user when the measured SAR is less than the safety limits set by FCC (an SAR of 1.6 w/kg). Even in a case where the maximum measurement uncertainty permitted by current measurement standards was added to the maximum permissible SAR, the resulting SAR value would be well below any level known to produce an acute effect. Consequently, FCC's approach with measurement uncertainty will not result in consumers being exposed to any known risk from the RF emitted by cellular telephones.

FDA will continue to monitor studies and literature reports concerning acute effects of cell phone RF, and concerning chronic effects of long-term exposure to cellular telephone RF (that is, the risks from using a cell phone for many years). If new information leads FDA to believe that a change to FCC's measurement policy may be appropriate, FDA will contact FCC and both agencies will work together to develop a mutually-acceptable approach.

Updated July 29, 2003

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