

RM-242 User Guide

FCC DRAFT

CE 0434

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Contents

SAFETY	6	E-mail application	22
General information	7	Instant messaging.....	23
Helpful hints	7	Voice messages.....	24
About your device.....	9	Message settings.....	24
Network services.....	9	5. Contacts	26
Enhancements	10	Save names and phone numbers.....	26
Access codes	10	Add contact details.....	27
Software updates.....	11	Search for a contact.....	27
Download content.....	11	Copy or move contacts.....	27
Nokia support	12	Edit contacts.....	27
1. Get started	12	Groups	27
Install SIM card and battery	12	Business cards.....	27
Charge the battery	12	Contact settings	28
Switch the phone on and off	13	6. Log	28
Set the time, zone, and date	13	7. Settings	28
Configuration settings service	13	Profiles	28
Antenna.....	14	Themes	29
Wrist strap.....	14	Tones.....	29
Keys and parts.....	14	Display.....	29
microSD memory card.....	15	Date and time	30
Standby mode	16	My shortcuts.....	30
Flight profile.....	17	Sync and backup	30
2. Calls	17	Connectivity.....	31
Make a voice call	17	Call	33
Answer or reject a voice call	18	Phone.....	34
Speed dialling	18	Enhancements.....	34
Enhanced voice dialling.....	18	Configuration	35
Options during a call	19	Restore factory settings	35
Make a video call.....	19	Phone software updates.....	35
3. Write text	20	8. Operator menu	36
Traditional text input	20	Info messages.....	36
Predictive text input.....	20	Service commands.....	36
4. Messaging	21	9. Gallery	36
Write and send a text message	21	Digital rights management	36
Write and send a multimedia message ..	21	Print images.....	37
Read and reply to a message	21	10. Media	37
Nokia Xpress audio messaging	22	Camera.....	38
Flash messages.....	22	Video.....	38

Music player.....	39	Browse pages	46
Radio	39	Bookmarks.....	46
Voice recorder.....	41	Appearance settings.....	47
Equaliser.....	41	Security settings.....	47
Stereo widening.....	42	Service inbox	47
11.Push to talk.....	42	Browser security.....	48
12.Organiser	42	16.PC connectivity.....	49
Alarm clock.....	42	Nokia PC Suite	49
Calendar	42	Data communication applications.....	49
To-do list.....	43	17.Battery and charger	
Notes.....	43	information	49
Calculator.....	43	Nokia battery authentication guidelines.	50
Countdown timer.....	44	Care and maintenance.....	51
Stopwatch.....	44	Additional safety information	52
13.Applications	44	APPENDIX.....	56
Launch a game	44	A message from the CTIA.....	56
Launch an application.....	45	Message from the FDA.....	58
Application options.....	45	Index.....	64
14.SIM services	45		
15.Web.....	45		
Connect to a service.....	46		

FCC DRAFT

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 service point

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

A: Try the following:

- Power off the phone and remove and replace the battery.
- Restore the factory settings. Select **Menu > Settings > Rest. factory sett.**. The names and phone numbers saved in *Contacts* are not deleted.
- Update the phone with Nokia Software Updater if available. Visit www.nokia.com/softwareupdate or your local Nokia website.

Access codes

Q: What is my password for the lock, PIN, or PUK codes?

A: The default lock code is 12345. If you forget or lose the lock code, contact your phone dealer.

If you forget or lose a PIN or PUK code, or if you have not received such a code, contact your service provider.

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 over 10 meters (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 change the volume?

A: To increase or decrease 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 the e-mail function on your phone, you need a compatible e-mail system. Check your e-mail settings with your e-mail service provider. You may receive the e-mail configuration settings as a configuration message.

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. See the user guide for Nokia PC Suite. For further information on how to use Nokia PC Suite, see the help function in Nokia PC Suite or visit 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 list of dialed numbers, press the call key once. Scroll to the number or name that you want; to call the number, press the call key.
- To open the web browser, press and hold 0.
- To call your voice mailbox, press and hold 1.
- Use the scroll key as a shortcut. See "My shortcuts," p. 30.
- 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 features in this device, other than the alarm clock, the device must be switched on. Do not switch the device on when wireless device use may cause interference or danger.

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, presence enhanced contacts, 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.

- The keypad lock (keyguard) only locks the keys.
You can lock the keys to prevent accidental keypresses.
 1. To lock the keys, close the slide, and select **Lock** within 3.5 seconds.
 2. To unlock the keys, open the slide; or select **Unlock > OK** within 1.5 seconds.

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

You can also select **Menu > Settings > Phone > Automatic keyguard or Security keyguard > On or Off**. If the *Security keyguard* is set *On*, enter the security code when requested.

- The security code, supplied with the phone, helps to protect your phone against unauthorised use. The preset code is **12345**.
- 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 local service provider.
- The barring password (4 digits) is required when using the *Call barring service* to restrict incoming calls to and outgoing calls 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 or XP operating system, broadband 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, visit 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. 34.

■ 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.



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

■ 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.

On the website, you can get information on the use of Nokia products and services. If you need to contact customer service, check the list of local Nokia contact centres at www.nokia.com/customerservice.

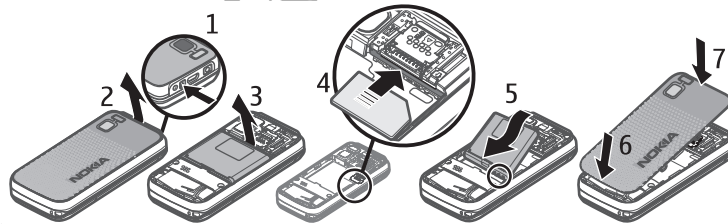
For maintenance services, check your nearest Nokia service centre at www.nokia.com/repair.

1. Get started

■ Install SIM card and battery

Always switch the device off and disconnect the charger before removing the 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 with the gold-coloured contact area facing down (4).

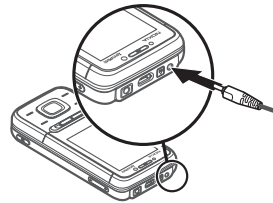


■ Charge the battery

Charging the BP-5M battery with the AC-4 charger takes approximately 1 hour and 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 top of your phone.

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



■ Switch the phone on and off

1. Press and hold the power key as shown.
2. If the phone asks for a PIN or a UPIN code, enter the code (for example, 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 get the configuration settings from your service provider (network service). Confirm or decline the query. See "Configuration," p. 35, and "Configuration settings service," p. 13.



■ Set the time, zone, and date

When you switch on your phone for the first time, and the phone is in the standby mode, 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.

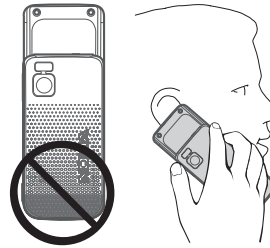
■ Configuration settings service

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 visit the support area on the Nokia website, www.nokia.com/support.

When you have received the settings as a configuration message, and 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.

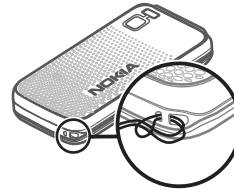
■ Antenna

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.



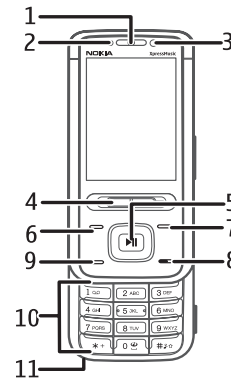
■ Wrist strap

Insert the thread around the eyelet of the phone as shown in the picture. Tighten the thread.

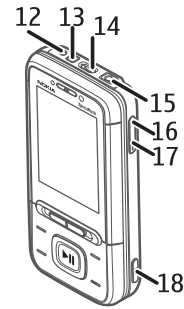


■ Keys and parts

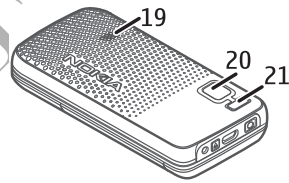
1. Earpiece
2. Light sensor
3. Front camera
4. MusicSlider key
opens the music menu (slide left), or
opens the radio (slide right)
5. Navi™ key: 4-way scroll key and middle selection key
6. Left selection key
7. Right selection key
8. End key/power key;
ends calls (short key press) and
turns the phone on and off (long key press)
9. Call key
10. Keypad
11. Wrist strap eyelet



- 12. Charger connector
- 13. Battery cover release button
- 14. USB connector
- 15. 2.5 mm audio connector
- 16. Volume up key/PTT key
- 17. Volume down key
- 18. Camera key/auto focus



- 19. Loudspeaker
- 20. Camera lens
- 21. Camera flash



Warning: The following parts of this device may contain nickel: Music Slider key. This part is not designed for prolonged contact with the skin. Continuous exposure to nickel on the skin may lead to a nickel allergy.

■ microSD memory card

The microSD memory card, can be loaded with data such as ringing tones, themes, tones, images and videos. If you delete, reload, or replace this card, these functions and features may not function properly.

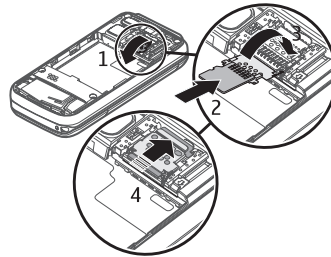


You can remove or replace a microSD card during phone operation without switching the phone off.



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

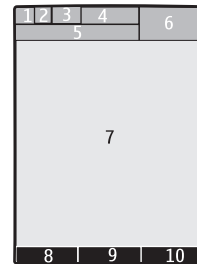
1. Remove the battery cover of the phone. Swing the microSD memory card holder open (1).
2. Insert the card with the gold-colored contact area facing up (2). Swing the card holder back in place (3), and close it at shown (4). Replace the battery cover.






■ Standby mode










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

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. The left selection key (8) is **Go to** or a shortcut to another function. See "Left selection key," p. 30
9. The middle selection key (9) mode is **Menu**.
10. The right selection key (10) may be **Names** to access the list of contacts in the *Contacts* menu, an operator-specific name to access an operator-specific web site, or a shortcut to a function that you selected. See "Right selection key," p. 30.




Indicators

-  You have unread messages.
-  The phone registered a missed call. See "Log," p. 28.
-  The keypad is locked. See "Access codes," p. 10.

-  The phone does not ring for an incoming call or text message when **Incoming call alert** is set to **Off** and **Message alert tone** is set to **Off**. See "Tones," p. 29.
-  The alarm clock is set to **On**. See "Alarm clock," p. 42.
-   When the packet data connection mode **Always online** is selected and the packet data service is available, the indicator is shown.
-   A GPRS or EGPRS connection is established.
-   The GPRS or EGPRS connection is suspended (on hold).
-  Bluetooth connection indicator. See "Connecting with Bluetooth," p. 31.

■ Flight profile

You can deactivate all radio frequency functions and still have access to offline games, calendar, music player, and phone numbers. Use the flight profile in radio sensitive environments—on board aircraft or in hospitals. When the flight profile is active,  is shown.

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.

In the offline or flight profiles, you may need to unlock the device and change to the calling profile before making a call.



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. Calls

■ Make a voice call

Do one of the following:

- Enter the phone number, including the area code, 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.
- Press the call key once to list the last called numbers, and press the call key.
- Call a name or number in *Contacts*. See "Contacts," p. 26.

To increase or decrease 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**. Then answer or reject the call.

■ 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 off, 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.

■ Enhanced voice dialling

You can make a phone call by saying the name that is saved in the contact list of the phone. To set a contact for the voice playback, select **Menu** > *Settings* > *Phone* > *Voice recognition* > *Recognition lang.*, and follow the instructions on the display.

Before using voice tags, note the following:

- Voice tags are not language-dependent. They are dependent on the speaker's voice.
- You must say the name exactly as you said it when you recorded it.

- Voice tags are sensitive to background noise. Record voice tags and use them in a quiet environment.
- Very short names are not accepted. Use long names, and avoid similar names for different numbers.



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

■ Options during a call

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

Possible options that your service provider may offer include conference calls, video sharing and placing calls on hold.

Call waiting

Select **Menu** > *Settings* > *Call* > *Call waiting* > *Activate* to have the network notify you 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 video call

1. To start a video call, enter the phone number in the standby mode, or select **Contacts** and a contact.
2. Press and hold the call key, or select **Options** > *Video call*.
Starting a video call may take a while. *Video call* and an outgoing animation is shown. If the call is not successful (for example, video calls are not supported by the network, or the receiving device is not compatible) you are asked if you want to try a normal call or send a message instead.
To increase or decrease the volume during a call, press the volume key up or down.
3. To end the call, press the end key.



When you make a video call, you send a real-time video to the recipient of the call. The video image captured by the camera on the front of your phone is shown to the video 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. The video call can be made to a compatible phone or an

ISDN client. Video calls cannot be made while another voice, video, or data call is active.

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.

3. Write text

You can enter text using traditional or predictive text input. When you write text, select and hold **Options** to switch between traditional text input, indicated by , and predictive text input, indicated by . Not all languages are supported by predictive text input.

The character cases are indicated by , , and . To change the character case, press **#**. To change from the letter to number mode, indicated by , 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 writing language. Press the **0** key to create a space. The most common punctuation marks and special characters are available under the **1** key.

■ 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 the keys **2** to **9**. The phone displays ***** or the letter if it separately has a meaning as a word. The entered letters are displayed underlined.
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 the **?** character is displayed after the word, the word you intended to write is not in the dictionary. To add the word to the dictionary, select **Spell**. 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.

3. Start writing the next word.

4. 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 a memory, 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 a memory, 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, network service), 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.
3. 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 message service to create and send an audio message. MMS must be activated before you can use 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 **Show** > **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 the e-mail function on your phone, you need a compatible e-mail system.

You may receive the e-mail configuration settings as a configuration message.

E-mail setup wizard

Select **Menu** > *Messaging* > *E-mail mailbox* > **Options** > *Add mailbox* > *E-mail setup wizard*.

To enter the settings manually, select **Menu** > *Messaging* > *E-mail mailbox* > **Options** > *Add mailbox* > *Create manually*.

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

1. Select **Menu** > *Messaging* > *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, write the subject, and enter the message.
To attach a file to the e-mail, select **Options** > *Insert*.
To save your e-mail, select **Options** > *Save message*. To edit or continue writing your e-mail later, select *As draft message*.
3. To send the e-mail message, select **Send**.
To send an e-mail from a draft folder, select **Menu** > *Messaging* > *Drafts* and the desired message.

Download e-mail

1. To download e-mail messages that have been sent to your e-mail account, 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 at first.
2. Select an e-mail and press **Open** to download the complete e-mail 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 create your reply.
3. To send the message, select **Send**.
To terminate the connection to your e-mailbox, select **Options** > *Disconnect*.


■ Instant messaging

With instant messaging (IM, network service) you can send short, simple 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**.

■ 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 > *Yes* – to set your phone to save the sent messages in the *Sent items* folder

Overwriting in Sent > *Allowed* – to set your phone to overwrite the old sent messages with the new ones when the message memory is full. This setting is shown only if you selected *Save sent messages* > *Yes*.

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

Font size – to select the font size used in messages

Graphical smileys > *Yes* – to set your phone to replace character-based smileys with graphical ones

Text messages

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

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

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

Message centres > *Add centre* – to set the phone number and name of the message 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 messages to be sent: *Text*, *Paging*, or *Fax* (network service)

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

Character support > *Full* – to select all characters in the messages to be sent as viewed. If you select *Reduced*, characters with accents and other marks may be converted to other characters.

Rep. via same centre > *Yes* – to allow the recipient of your message to send you a reply using your message centre (network service)

Multimedia messages

The message settings affect the sending, receiving, and viewing of multimedia messages. You may receive the configuration settings for multimedia messaging as a configuration message. See "Configuration settings service," p. 13. You can also enter the settings manually. See "Configuration," p. 35.

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

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

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 the multimedia message, select *Yes* or *No*. If you select *In home network*, you cannot receive multimedia messages when outside your home network. The default setting of the multimedia message service is generally *In home network*. The availability of this menu depends on your phone.

Incoming MMS msgs. – to decide how multimedia messages are retrieved. This setting is not shown if *Allow MMS receptn.* is set to *No*.

Allow adverts – to receive or reject advertisements. This setting is not shown if *Allow MMS receptn.* is set to *No*, or *Incoming MMS msgs.* is set to *Reject*.

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

E-mail messages

The settings affect the sending, receiving, and viewing of e-mail. You may receive the settings as a configuration message. See "Configuration settings service," p. 13. You can also enter the settings manually. See "Configuration," p. 35.

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

New e-mail notif. – to select whether a notification is shown when new e-mail is received

Allow mail reception – to select whether e-mail can be received in a foreign network or only in the home network

Reply with orig. msg. – to select whether the original message is included 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 one in use

5. Contacts



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

The phone memory may save contacts with additional details, such as various phone numbers and text items. You can also save an image for a limited number of contacts.

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

To synchronise from a PC, see "Connectivity," p. 31.

■ Save names and phone numbers

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

■ Add contact details

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

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.

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

■ 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 from the phone memory to the SIM card memory or vice versa. The SIM card can save names with one phone number attached to them.

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

To move or copy contacts one by one, 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 have received a business card, select **Show** > **Save** to save the business card in the phone memory. To discard the business card, select **Exit** > **Yes**.

■ Contact settings

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

Memory in use – See "Add contact details," p. 27.

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

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

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

Memory status – to view the free and used memory capacity

6. Log

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

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



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

7. 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. Select the setting you want to change, and make the changes.

Timed – to set the profile to be active for a certain time up to 24 hours. After this time the previous profile becomes active.

■ Themes

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

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

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

■ Tones

Select **Menu** > *Settings* > *Tones*.

Select **Options** > *Save* to save the settings or *Cancel* to leave the settings unchanged.

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

■ Display

With display settings you can personalise your display view.

Standby mode settings

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

Wallpaper – to set your phone to display an image or a slide as wallpaper in the standby mode. Select *Wallpapers* > *Image* or *Slide set*, scroll to the folder from which you want to select the image or slide set, and select the image or slide set you want.

Active standby – to select whether your phone displays the active standby

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

Navigation key icons – to display the icons of the current scroll key shortcuts in the standby mode when active standby is off

Notification details – to show or hide details such as contact information, in both missed call and message received notifications

Slide animation – to set your phone to display an animation and play a tone when you open and close the phone depending on the theme

Screen saver – to set your phone 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 reading and writing messages, and viewing contacts and web pages.

Operator logo – to set your phone to display or hide the operator logo, if available

Cell info display > On – 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

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

Left selection key

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

Right selection key

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

Navigation 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**.

■ Sync and backup

Select **Menu > Settings > Sync and backup** to synchronise or copy data between your phone and another phone or remote server (network service).

Phone switch – to synchronise or copy data between two phones

Create backup – to create a backup of selected content and store it to your memory card

Restore backup – to restore content previously backed up on your memory card

Data transfer – to transfer data between your phone and another device

■ Connectivity

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

Connecting with Bluetooth

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


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

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

Set up a Bluetooth connection

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

Select *My phone's name* to set or change the name of your phone that is visible to other Bluetooth devices.

 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.

See 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 one time 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* or *My phone's name*. Select *Hidden*, or turn off Bluetooth completely.

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 the Nokia PC Suite software for your phone on the 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 and the settings required for this service, contact your service provider.

USB data cable

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

Ask on conn. – to let your phone ask whether to get connected

PC Suite – to use your phone to interact with applications on a PC that has Nokia PC Suite

Printing & Media – to use your phone with a PictBridge compatible printer, or to connect your phone to a PC to synchronise it with Windows Media Player (music, video)

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 > Ask on conn., PC Suite, Printing & Media, or Data storage.**

■ Call

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

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

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

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

Video-voice redial – to select whether the phone automatically repeats a voice call to the same number to which a video call has failed

Voice clarity > Active – to enhance speech intelligibility especially in noisy environments

Speed dialling – See "Speed dialling," p. 18.

Call waiting – See "Call waiting," p. 19.

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

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

Slide call handling – to select the function for opening and closing the slide

Video sharing – to define video sharing settings

■ Phone

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

Language settings – to set the display 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 playback, select *Recognition lang..*

Memory status – to view the amount of used and available phone memory

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

Voice recognition – See "Enhanced voice dialling," p. 18.

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

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

Phone updates – to update your phone software if there is an update available

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

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

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

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

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

■ Enhancements

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

Select **Menu** > *Settings* > *Enhancements*. Select an enhancement and, depending on the enhancement, from the following options:

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

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

■ Configuration

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

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

Default config. sett. – to view the service providers saved in the phone. To set the configuration settings of the service provider as default settings, select **Options > Set as default**.

Activ. 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 add new personal accounts for various services manually, and to activate or delete them. The parameters differ according to the selected service type.

■ Restore factory settings

Select **Menu > Settings > Rest. factory sett.** to reset some of the menu settings to their original values. Enter the security code. The names and phone numbers saved in *Contacts* are not deleted.

■ Phone software updates

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



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.

8. Operator menu

This menu lets you access services provided by your network operator. The name and the icon depend on the operator. For more information contact your network operator. The operator can update this menu with a service message.

■ Info messages

Select **Menu > Messaging > Info messages** to receive messages on various topics 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.

9. Gallery



In this menu you can manage images, video clips, music files, themes, graphics, tones, recordings, and received files. These files are stored in the phone memory, and may be arranged in folders.

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

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

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

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

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

This phone supports OMA DRM 2.0.

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 10.07, OMA DRM 1.0 and OMA DRM 2.0. 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.

■ Print images

XpressPrint

Your phone supports Nokia XpressPrint. To connect it to a compatible printer, use a USB data cable or send the image using Bluetooth to a printer supporting Bluetooth technology. See "Connectivity," p. 31.

You can print images that are in the .jpg format. The images taken with the camera are automatically saved in the .jpg format.

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

10. Media



You can take photos or record live video clips with the built-in 3.2-megapixel camera with auto focus.

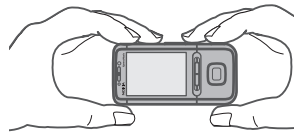
■ Camera

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

Take an image

Press the camera key (short key press) to activate the camera. Press it again to take an image.

To take another image, select **Back**; to send the image as a multimedia message, select **Options > Send**. Your phone saves the image in *Gallery > Images*.



To auto focus, press camera key halfway down. A white frame appears in the display. When focusing is finished the frame changes colour to green and the picture can be captured pushing the camera key fully down. A red frame indicates that the camera is not in focus. In that case, release the camera button and re-focus the camera.

The camera flash will be used automatically when you take images in low light conditions.

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

To zoom in or out, press the volume key up or down.

■ Video

You can record video clips in .3gp format. Available recording time depends on the video clip length and quality settings. 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

To activate the video camera, press the camera key (long key press). To start recording, select **Record**. To zoom in or out, press the volume key up or down.

■ Music player

Your phone includes a music player for listening to music tracks, recordings or other MP3, MP4, AAC, AAC+, eAAC+, AMR-NB or WMA music files that you may have transferred to the phone with the Nokia Audio Manager application, which is part of Nokia PC Suite.

For quick access to the music player, move the Music Slider left.

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

To open a list of all songs stored in your phone, 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 list stored in your phone, select *Videos* > **Open**, or scroll right.

To customise the music player and equaliser theme, move Music Slider right, select *Go to Music player* > **Options** > *Settings* > *Music player theme*.

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 track list are shown.

To play, select **▶▶**.

To adjust the volume level, 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 **▶▶▶**. Release the key at the position you want.

■ Radio

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



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

For quick access to the radio, move the Music Slider right.

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

To customise the radio theme, ensure the radio is on and, select **Options > Settings > Radio theme**.

Save stations

1. To search for radio stations, select and hold ◀ or ▶. To change the radio frequency in 0.05 MHz steps, press ◀ or ▶.
2. To save the station to a memory location 1 to 9, press and hold the corresponding number key.
3. To save the station in the memory location from 10 to 20, press 1 or 2, and press and hold the number key (0 to 9) you want.
4. Enter the name of the station, and select **OK**.

Listen

1. Select **Menu > Media > Radio**.
2. To scroll to the radio station you want, select ▲ or ▼, or press the headset key.
3. To select a radio station location, briefly press the corresponding number keys.
4. Select **Options** and one of the following options:
 - Switch off* – to turn off the radio.
 - Save station* – to save a new radio station by entering the station's name. This option is only displayed when the selected radio station is not saved.
 - 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 the radio station.
 - Settings* – to change the Radio Data System (RDS) settings, select *RDS on* or *RDS off*. When RDS is on, you can select *Auto-freq. change on* to change to another frequency containing the same radio station when the original signal becomes weak.

Station directory – to open the Visual Radio services using a web link to a radio station guide.

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

Enable visual service – to set whether the Visual Radio application starts automatically when you turn on the radio.

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




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



■ Voice recorder


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

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

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

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

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

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

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

To send the last recording, select **Options** > *Send last recorded*.

To see the list of recordings in *Gallery*, select **Options** > *Recordings list* > *Recordings*.

■ Equaliser

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

To activate a set, scroll to one of the equaliser 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 in the phone.

11. Push to talk



Select Menu > *Push to talk*.

With Push to talk (PTT, network service) 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 the PTT service you want to use. For more information about signing up for PTT services, contact your service provider.

12. Organiser



■ Alarm clock

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

To set the alarm, select *Alarm time*, and enter the alarm time. To change the alarm time when the alarm time is set, select *On*.

To set your phone to alert you on selected days of the week, select *Repeat alarm*.

To select the alarm tone or set the radio as the alarm tone, select *Alarm tone*. If you select the radio as an alarm tone, connect the headset to the phone.

To set a snooze time-out, select *Snooze time-out* and the 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 let the phone continue to sound the alarm for a minute or select **Snooze**, the alarm stops for the time you set in *Snooze time-out*, then resumes.

■ Calendar

Select Menu > *Organiser* > *Calendar*.






The current day is indicated by a frame. If there are any notes set for the day, the day is in bold type, and the beginning of the note is shown below the calendar. To view the day notes, select **View**. To view a week, select **Options** > *Week view*. To

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


To set the date, time, time zone, calendar tone, date or time format, date separator, 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 from a PC, see "Connectivity," p. 31.

Make a calendar note

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

Note alarm

The phone displays the note and, if set, plays a tone. With a call note  on the display, to call the displayed number, press the call key. To stop the alarm and to view the note, select **View**. To stop the alarm for 10 minutes, select **Snooze**.

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

■ 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**. While viewing a note, you can also select an option to edit the attributes. You can also select an option to delete the selected note and delete all the notes that you have marked as done.

■ 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 synchronise from a PC, see "Connectivity," p. 31.

■ Calculator

Select **Menu** > *Organiser* > *Calculator*. When 0 is displayed on the screen, enter the first number in the calculation. Press **#** for a decimal point. Scroll to the desired operation or function, or select it from **Options**. Enter the second number.

Repeat this sequence as many times as it is necessary. To start a new calculation, first select and hold **Clear**.

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 start the time observation, select **Start**. Select **Split** every time that you want to take an intermediate time. To stop the time observation, select **Stop**.

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

To start the time observation again, select **Options > Start**. The new time is added to the previous time. To reset the time without saving it, select **Reset**.

Lap timing – to take lap times

During timing, the other functions of the phone can be used. 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.

13. Applications



■ Launch a game

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

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

■ Launch an application

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

■ Application options

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

Web page – to provide further information or additional data for the application from an internet page (network service), if available

Application access – to restrict the application from accessing the network

14. 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.

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

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.

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

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

■ 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 sett.*
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.

1. While browsing, select **Options** > *Add bookmark*; or in the standby mode, select **Menu** > *Web* > *Bookmarks*.
2. Scroll to a bookmark, and select it, or press the call key to make a connection to the page associated with the bookmark.
3. Select **Options** to view, edit, delete, or send the bookmark; to create a new bookmark; or to save the bookmark to a folder.

■ 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 into 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 page, for example, the title of the book you want to buy and its price. The text to sign, which may include the amount and date, is shown.

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

2. To sign the text, read all of the text first, and select **Sign**.
The text may not fit within a single screen. Therefore, make sure to scroll through and read all of the text before signing.
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. PC connectivity

You can send and receive e-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 synchronise contacts, calendar, notes, and to-do notes between your phone and the compatible PC or a remote internet server (network service). You may find more information and PC Suite 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.

17. Battery and charger information

Your device is powered by a rechargeable battery. The battery intended for use with this device is BP-5M. This device is intended for use when supplied with power from the following chargers: AC-4. 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 a total assurance of the authenticity of the battery. If you have any reason to believe that your battery is not an authentic, original Nokia battery, you should refrain from using it, and take it to the nearest authorised Nokia service point or dealer for assistance. Your authorised Nokia service point or dealer will inspect the battery for authenticity. If authenticity cannot be verified, return the battery to the place of purchase.

Authenticate hologram



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

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

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 in the European Union all electrical and electronic products, batteries, and accumulators must be taken to separate collection at the end of their working life. Do not dispose of these products as unsorted municipal waste.

Return the products to collection to prevent possible harm to the environment or human health from uncontrolled waste disposal and to promote the sustainable reuse of material resources. Collection information is available from the product retailer, local waste authorities, national producer responsibility organizations, or your local Nokia representative. For more information, see product Eco-Declaration or 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 1.0 centimeters (3/8 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.

■ 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 minimize 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 1.14 W/kg.

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

Your mobile device is also designed to meet the requirements for exposure to radio waves established by the Federal Communications Commission (USA) and Industry Canada. These requirements set a SAR limit of 1.6 W/kg averaged over 1 gram of tissue. The highest SAR value reported under this standard during product certification for use at the ear is 0.81 W/kg and when properly worn on the body is 0.98 W/kg. Information about this device model can be found at <http://www.fcc.gov/oet/fccid> by searching the equipment authorization system using FCC ID: QTKRM-242.

APPENDIX

■ A message from the CTIA

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Safety is the most important call you will ever make.

A Guide to Safe and Responsible Wireless Phone Use

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

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

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

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

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

Wireless phone "Safety Tips"

1. Get to know your wireless phone and its features such as speed dial and redial. Carefully read your instruction manual and learn to take advantage of valuable features most phones offer, including automatic redial and memory.

APPENDIX

Also, work to memorize the phone keypad so you can use the speed dial function without taking your attention off the road.

2. When available, use a hands free device. A number of hands free wireless phone accessories are readily available today. Whether you choose an installed mounted device for your wireless phone or a speaker phone accessory, take advantage of these devices if available to you.
3. Position your wireless phone within easy reach. Make sure you place your wireless phone within easy reach and where you can grab it without removing your eyes from the road. If you get an incoming call at an inconvenient time, if possible, let your voice mail answer it for you.
4. Suspend conversations during hazardous driving conditions or situations. Let the person you are speaking with know you are driving; if necessary, suspend the call in heavy traffic or hazardous weather conditions. Rain, sleet, snow and ice can be hazardous, but so is heavy traffic. As a driver, your first responsibility is to pay attention to the road.
5. Do not take notes or look up phone numbers while driving. If you are reading an address book or business card, or writing a "to do" list while driving a car, you are not watching where you are going. It's common sense. Don't get caught in a dangerous situation because you are reading or writing and not paying attention to the road or nearby vehicles.
6. Dial sensibly and assess the traffic; if possible, place calls when you are not moving or before pulling into traffic. Try to plan your calls before you begin your trip or attempt to coincide your calls with times you may be stopped at a stop sign, red light or otherwise stationary. But if you need to dial while driving, follow this simple tip--dial only a few numbers, check the road and your mirrors, then continue.
7. Do not engage in stressful or emotional conversations that may be distracting. Stressful or emotional conversations and driving do not mix-- they are distracting and even dangerous when you are behind the wheel of a car. Make people you are talking with aware you are driving and if necessary, suspend conversations which have the potential to divert your attention from the road.
8. Use your wireless phone to help others in emergencies. Your wireless phone provides you a perfect opportunity to be a "Good Samaritan" in your community. If you see an auto accident, crime in progress or other serious emergency where lives are in danger, call 9-1-1 or other local emergency number, as you would want others to do for you.

APPENDIX

9. Use your wireless phone to call for help. Your wireless phone is one of the greatest tools you can own to protect yourself and your family in dangerous situations--with your phone at your side, help is only three numbers away. Dial 9-1-1 or other local emergency number in the case of fire, traffic accident, road hazard or medical emergency. Remember, it is a free call on your wireless phone!
10. Use your wireless phone to help others in emergencies. Your wireless phone provides you a perfect opportunity to be a "Good Samaritan" in your community. If you see an auto accident, crime in progress or other serious emergency where lives are in danger, call 9-1-1 or other local emergency number, as you would want others to do for you.
11. Call roadside assistance or a special wireless non-emergency assistance number when necessary. Certain situations you encounter while driving may require attention, but are not urgent enough to merit a call for emergency services. But you still can use your wireless phone to lend a hand. If you see a broken-down vehicle posing no serious hazard, a broken traffic signal, a minor traffic accident where no one appears injured or a vehicle you know to be stolen, call roadside assistance or other special non-emergency wireless number.

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

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

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

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

■ Message from the FDA

The U.S. Food and Drug Administration (FDA) provides the following consumer information about wireless phones.

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

Do wireless phones pose a health hazard?

The available scientific evidence does not show that any health problems are associated with using wireless phones. There is no proof, however, that wireless

APPENDIX

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.

APPENDIX

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

APPENDIX

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

APPENDIX

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

APPENDIX

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.

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FCC DRAFT

Index

A

- access codes 10
- activation keys 37
- alarm clock 42
- antenna 14
- audio messages 22

B

- battery
- Bluetooth 31
- bookmarks 46
- browser
 - appearance settings 47
 - bookmarks 46
 - security 47
- business cards 27

C

- calculator 43
- calendar 42, 43
- call
 - key 14
 - log 28
 - register. See call log.
 - waiting 19
- calls
 - international 17
 - making 17
 - options 19
 - settings 33
 - voice dialing 18
- camera 38
- certificates 48
- character case 20
- charge level 16
- codes 10
- configurations
 - general 35
 - setting service 13
- contact information 12
- contacts
 - copying 27
 - editing 27
 - groups 27
 - saving 26
 - searching 27
 - settings 28

- speed dialling 18
- cookies 47
- copyright protection 36
- countdown timer 44
- customer service 12

D

- data communication 49
- digital rights management 36
- digital signature 48
- downloading protected files 36
- downloads 11

E

- e-mail application 22
- end key 14
- ending calls 17
- equaliser 41, 42

F

- factory settings 35
- flash messages 22
- flight mode 17

G

- gallery 36
- games 44

H

- handsfree. See loudspeaker.

I

- images 38
- indicators 16
- info messages 36
- instant messaging 23
- internet 45

L

- language settings 34
- locking the keypad 10
- log 28
- loudspeaker 19

M

message settings
 e-mail 26
 general 24
 multimedia messages 25
 text messages 24
messages
 audio messages 22
 flash messages 22
 info messages 36
 service commands 36
 voice messages 24

N

Nokia contact information 12
notes 43

O

operator logo 16, 30
operator menu 36
organiser 42

P

PC connectivity 49
PC Suite 49
power key 13, 14
predictive text input 20
profiles 28
protected files 37
PTT. See push to talk.
push to talk 42
pushed messages 47

R

radio 39
recorder 41
ringing tones 29

S

safety information 6
selection keys 14
service commands 36
service inbox 47
service messages 47
services 45

settings
 call 33
 configuration 35
 connectivity 31
 messages 24
 my shortcuts 30
 phone 34
 profiles 28
 restore factory settings 35
 themes 29
 tones 29
shortcuts 30
signal strength 16
SIM services 45
software updates 11
speed dialling 18
standby mode 16, 30
stopwatch 44
strap 14
switch on and off 13

T

text 20
themes 29
to-do list 43
tones 29
traditional text input 20

U

unlock the keypad 10

V

voice dialing 18
voice messages 24
voice recorder 41
volume key 15

W

wallpaper 29
web 45
wrist strap 14
writing text 20

Z

zoom key 15