

Nokia N80 User Guide

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

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For your safety

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



SWITCH ON SAFELY Do not switch the 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 HOSPITALS Follow any restrictions. Switch the device off near medical equipment.



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



SWITCH OFF WHEN REFUELING Do not use the device at a refueling point. Do not use near fuel or chemicals.



SWITCH OFF NEAR BLASTING Follow any restrictions. Do not use the device where blasting is in progress.



USE SENSIBLY Use only in the normal position as explained in the product documentation. Do not touch the antenna unnecessarily.



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



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



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



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



CONNECTING TO OTHER DEVICES When connecting to any other device, read its user

guide for detailed safety instructions. Do not connect incompatible products.



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

About your device

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

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

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



Warning: To use any features in this device, other than the alarm clock, the device must be switched on. Do not switch the device on when wireless device use may cause interference or danger.

Network services

To use the phone you must have service from a wireless service provider. Many of the features in this device depend on features in the wireless network to function. These network services may not be available on all networks or you may have to make specific arrangements with your service provider before you can utilize network services. Your service provider may need to give you additional instructions for their use and explain what charges will apply. Some networks may have limitations that affect how you can use network services. For instance, some networks may not support all language-dependent characters and services.

Your service provider may have requested that certain features be disabled or not activated in your device. If so, they will not appear on your device menu. Your device may also have been specially configured. This configuration may include changes in menu names, menu order, and icons. Contact your service provider for more information.

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

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

Enhancements, batteries, and chargers

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

Check the model number of any charger before use with this device. This device is intended for use when supplied with power from a DC-4, AC-3, or AC-4 charger and from an AC-1, ACP-8, ACP-9, ACP-12, ACH-8, ACH-9, or ACH-12 charger when used with the CA-44 charger adapter.

The battery intended for use with this device is BL-5B.



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.

Welcome

Model number: Nokia N80-1

Hereinafter referred to as Nokia N80.

Congratulations on your purchase of the Nokia N80. Your device provides many functions that are practical for daily use, such as a calendar, a clock, an alarm clock, a radio, and a built-in camera. Use the camera for recording video clips and taking pictures that you can, for example, attach as a wallpaper in the standby mode. See 'Camera', p. 21.

You can customize your device with ringing tones and themes. See 'Customize your device', p. 90.

Other features on your device are:

- Multimedia messaging. See 'Messaging', p. 43.
- Instant messages. See 'IM—instant messaging', p. 76.
- Music player. See 'Music player', p. 37.
- Wireless Bluetooth technology. See 'Bluetooth connectivity', p. 80.
- Wireless local area network (wireless LAN) connectivity. See 'Wireless LAN', p. 14.
- Home networking through wireless LAN and Universal Plug and Play. See 'Home network', p. 16.
- Java™ applications. See 'Application manager', p. 104.
- Web browser. See 'Services', p. 68.

Accessibility solutions

Nokia is committed to making mobile devices easy to use for all individuals, including those with disabilities. For more information, visit www.nokiaaccessibility.com.

Find information about your device

Information about your device is provided on the device label, which is on the back of the device under the battery. The label contains the model and serial numbers, as well as the following:

- Device type (such as RM-92)
- Device model (such as Nokia N80-1)
- International mobile equipment identity (IMEI)
- FCC ID number

Contact your service provider

In many cases, the service provider will make available descriptions of its services and instructions for using features, such as the following:

- Voice mail and voice privacy

- Call waiting, call forwarding, and caller ID
- Messaging
- News and information services
- Selected Internet services

Service providers may differ in their support of features.

FCC Draft

Your Nokia N80

Settings

You may have MMS, GPRS, streaming, and Mobile Internet settings from your service providers already installed in your device, or you may receive the settings from the service providers as a special text message.



Transfer content from another device

You can transfer content, such as contacts, from a compatible Nokia device to your Nokia N80 using Bluetooth connectivity or infrared. The type of content that can be transferred depends on the phone model. If the other device supports synchronization, you can also synchronize data between the other device and your Nokia N80.

You can insert your SIM card in the other device. When Nokia N80 is switched on without a SIM card, the offline profile is automatically activated.

Transfer content

- 1 To use the application for the first time, press , and select **Tools** > **Transfer**. If you have used the

application before and want to start a new transfer, select **Transfer data**.

In the information view, select **Continue**.

- 2 Select whether you want to use Bluetooth connectivity or infrared to transfer the data. Both devices must support the selected connection type.
- 3 If you select Bluetooth connectivity:
To have Nokia N80 search for devices with Bluetooth connectivity, select **Continue**. Select your other device from the list. You are asked to enter a code on your Nokia N80. Enter a code (1-16 digits), and select **OK**. Enter the same code on the other device, and select **OK**. The devices are now paired. See 'Pair devices', p. 82.
For some phone models, the **Transfer** application is sent to the other device as a message. To install **Transfer** on the other device, open the message, and follow the instructions on the display.
If you select infrared, connect the two devices. See 'Infrared connection', p. 83.
- 4 From your Nokia N80, select the content you want to copy from the other device.

Content is copied from the memory of the other device to the corresponding location in your Nokia N80. Copying

time depends on the amount of data to be transferred. You can cancel copying and continue later.

If the other device supports synchronization, you can keep the data up-to-date in both devices. To start a synchronization with a compatible Nokia device, select **Phones**, scroll to the device, and select **Options** > **Synchronize**. Follow the instructions on the display.

To view the log of a previous transfer, select **Transfer log**.

Essential indicators

 The device is being used in a GSM network.

3G The device is being used in a UMTS network (network service).

 You have one or more unread messages in the **Inbox** folder in **Messag..**

 You have received new e-mail in the remote mailbox.

 There are messages waiting to be sent in the **Outbox** folder.

 You have missed calls.

 Shown if **Ringling type** is set to **Silent** and **Message alert tone**, **IM alert tone**, and **E-mail alert tone** are set to **Off**.

 The device keypad is locked.

 A clock alarm is active.

2 The second phone line is being used (network service).

 All calls to the device are forwarded to another number. If you have two phone lines (network service), the indicator for the first line is **1** and for the second **2**.

 A headset is connected to the device.

 The connection to a headset with Bluetooth connectivity has been lost.

 A loopset is connected to the device.

 A **TTY** is connected to the device.

D A data call is active.

 A GPRS or EDGE packet data connection is available.

 A GPRS or EDGE packet data connection is active.

 A GPRS or EDGE packet data connection is on hold.

 A UMTS packet data connection is available.

 A UMTS packet data connection is active.

 A UMTS packet data connection is on hold.

 You have set the device to scan for wireless LANs, and a wireless LAN is available. See 'Wireless LAN', p. 99.

 A wireless LAN connection is active in a network that has encryption.

 A wireless LAN connection is active in a network that does not have encryption.

 Bluetooth connectivity is on.

 Data is being transmitted using Bluetooth connectivity.

 A USB connection is active.

 An infrared connection is active. If the indicator is blinking, the device is trying to connect to the other device or the connection has been lost.

Keypad lock (keyguard)

To lock the keys, close the sliding keypad, and select **Yes** when **Lock keypad?** is displayed. To lock the keys when the slide is closed, press the power key, and select **Lock keypad**.

To unlock, open the sliding keypad, or press  (**Unlock**), and select **OK** when **Unlock keypad?** is displayed.

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

Volume and loudspeaker control

To increase or decrease the volume level when you have



an active call or are listening to a sound, press  or .

The built-in loudspeaker allows you to speak and listen from a short distance without having to hold the device to your ear.

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

To use the loudspeaker during a call, select **Options** > **Activate loudsp..**

To turn off the loudspeaker, select **Options** > **Activate handset**.



Clock

Press , and select **Clock**. To set a new alarm, select **Options** > **Set alarm**. When an alarm is active,  is shown.

To turn off the alarm, select **Stop**, or to stop the alarm for 5 minutes, select **Snooze**.

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

select **Yes** when wireless phone use may cause interference or danger.

To cancel an alarm, select **Clock > Options > Remove alarm**.

Clock settings

To change the clock settings, select **Clock > Options > Settings**.

To change the time or date, select **Time** or **Date**.

To change the clock shown in the standby mode, select **Clock type > Analog** or **Digital**.

To allow the mobile phone network to update the time, date, and time zone information to your device (network service), select **Auto time update > On**.

To change the alarm tone, select **Clock alarm tone**.

World clock

To open the world clock view, open **Clock**, and press . In the world clock view, you can view the time in different cities.

To add cities to the list, select **Options > Add city**. You can add a maximum of 15 cities to the list.

To set your current city, scroll to a city, and select **Options > My current city**. The city is displayed in the

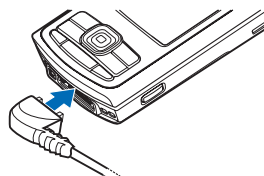
clock main view, and the time in your device is changed according to the city selected. Check that the time is correct and matches your time zone.

Headset

Connect a compatible headset to the Pop-Port™ connector of your device.

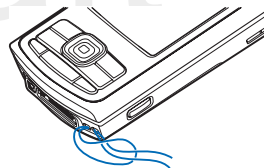
 **Warning:** When you use the headset, your ability to hear outside sounds may be affected.

Do not use the headset where it can endanger your safety.



Wrist strap

Thread the strap as shown, and tighten it.



Wireless LAN

Your device supports wireless local area network (wireless LAN). With wireless LAN, you can connect your device to the Internet and compatible devices that have wireless LAN. For information about using your device in a home network, see 'Home network', p. 16.

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

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

Your device supports the following wireless LAN features:

- IEEE 802.11b/g standard
- Operation at a frequency of 2.4 GHz
- Encryption methods wired equivalent privacy (WEP) with keys up to 128 bits, Wi-Fi protected access (WPA), and 802.1x. These functions can be used only if they are supported by the network.

You can create an Internet access point (IAP) in a wireless LAN, and use it for applications that need to connect to the Internet.

Create an Internet access point

- 1 Press , and select **Connect.** > **Conn mgr** > **Availab. WLAN.**
- 2 The device searches for wireless LANs within range. Scroll to the network in which you want to create an Internet access point, and select **Options** > **Define access point.**
- 3 The device creates an Internet access point with default settings. To view or change these settings, see 'Access points', p. 96.

When an application asks you to select an access point, select the created access point, or to search for wireless LANs in range, select **WLAN network.**

A wireless LAN connection is established when you create a data connection using a wireless LAN Internet access point. The active wireless LAN connection ends when you end the data connection. To end the connection, see 'Connection manager', p. 85.

You can use wireless LAN during a voice call or when packet data is active. You can only be connected to one wireless LAN access point device at a time, but several applications can use the same wireless LAN connection.

When you activate the **Offline** profile, you can still use wireless LAN (if available). Remember to comply with any applicable safety requirements when establishing and using a wireless LAN connection.

There are two operating modes in wireless LAN: infrastructure and ad hoc.

In the infrastructure operating mode, your device is connected to a wireless LAN access point device. Through the access point device, you can access other compatible devices or a wired LAN.

In the ad hoc operating mode, compatible devices can send and receive data directly with each other. To create an Internet access point for the ad hoc network, see 'Access points', p. 96.

 **Tip!** To check the unique Media Access Control (MAC) address that identifies your device, enter *#62209526# in the standby mode.

Home network

Your device is compatible with Universal Plug and Play architecture (UPnP). Using a wireless LAN access point device or a wireless LAN router, you can create a home network and connect compatible UPnP devices that support wireless LAN to the network, such as your Nokia N80, a compatible PC, a compatible printer, a compatible sound system, a compatible TV, or a sound system or TV equipped with a compatible wireless multimedia receiver.

After you have configured the home network, you can copy, view, or play compatible media files and print images in [Gallery](#) on the other connected compatible devices, for example, view images stored on your Nokia N80 on a compatible TV. See 'Home network', p. 33 and 'Image print', p. 38.

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

To set up home networking in your wireless LAN, first create and configure your wireless LAN home Internet access point, then configure the devices. On your Nokia N80, configure the settings in the [Home network](#)

application. See 'Home network', p. 33. To connect a compatible PC to the home network, on the PC, you must install the Home Media Server software from the CD-ROM supplied with your Nokia N80.

After you have completed the necessary configurations in all devices connected to the network, you can start using the home network. See 'View media files', p. 35.

The home network uses the security settings of the wireless LAN connection. Use the home network feature in a wireless LAN infrastructure network with a wireless LAN access point device or a router and encryption enabled.

Security tips

When you configure your wireless LAN home network, enable an encryption method, first on your access point device or router, then on the other compatible devices you intend to connect to your home network. Refer to the documentation of the devices. Keep any passcodes secret and in a safe place separate from the devices.

To view or change the settings of the wireless LAN Internet access point in your Nokia N80, see 'Access points', p. 96.

If you use the ad hoc operating mode to create a home network with a compatible device, enable one of the encryption methods in [WLAN security mode](#) when you configure the Internet access point. This step reduces the risk of an unwanted party joining the ad hoc network.

Your device notifies you if another device attempts to connect to it and the home network. Do not accept connection requests from an unknown device.

If you use wireless LAN in a network that does not have encryption, switch off sharing Nokia N80 files to other devices, or do not share any private media files. For how to change sharing settings, see 'Home network', p. 33.

Memory card

You can use a compatible miniSD card as extra storage space to save the memory on your device. You can also back up information from your device to the memory card.

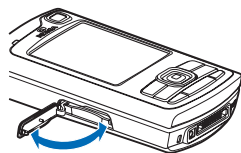


Use only compatible miniSD cards with this device. Other memory cards, such as Reduced Size MultiMediaCards, do not fit in the memory card slot and are not compatible with this device. Using an incompatible memory card may damage the memory card as well as the device, and data stored on the incompatible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

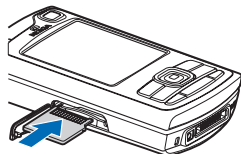
Keep all memory cards out of the reach of small children.

Insert the memory card

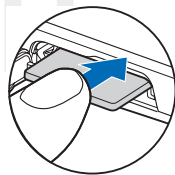
- 1 To insert the memory card, place your finger in the recess on top of the door of the memory card slot, and open the door.



- 2 Insert the memory card in the slot. Make sure that the contact area on the card is facing up and towards the slot with the bevelled corner facing the base of the device.



- 3 Push the card in. You can hear a click when the card locks into place.
- 4 Close the door. You cannot use the memory card if the door is open.



Eject the memory card

- 1 Before you eject the card, press the power key, and select **Remove mem. card**. All applications are closed.
- 2 When **Remove memory card and press 'OK'** is displayed, open the door of the memory card slot.
- 3 Press the memory card to release it from the slot.

- 4 Remove the memory card. If the device is switched on, select **OK**.



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.



Memory card tool

Press **⌵**, and select **Tools > Memory**. You can use a miniSD card as extra storage space and for backing up the information in the device memory.

To back up information from the device memory to a memory card, select **Options > Backup phone mem.**

To restore information from the memory card to the device memory, select **Options > Restore from card**.

Format a memory card

When a memory card is reformatted, all data on the card is permanently lost.

Some memory cards are supplied preformatted and others require formatting. Consult your retailer to find out if you must format the memory card before you can use it.

To format a memory card, select **Options > Format mem. card**. Select **Yes** to confirm.



File manager

Many features of the device, such as contacts, messages, images, videos, ringing tones, calendar notes, documents, and downloaded applications, use memory to store data. The free memory available depends on how much data is already saved in the device memory.

You can use a compatible memory card as extra storage space. Memory cards are rewritable, so you can delete old information and save new data on a memory card.

To browse files and folders in the device memory or on a memory card (if inserted), press **⌵**, and select **Tools > File mgr.**. The device memory view (**□**) opens. Press **⬅** to open the memory card view (**□**), if available.

To move or copy files to a folder, press **⌵** and **⬅** at the same time to mark a file, and select **Options > Move to folder** or **Copy to folder**.

To find a file, select **Options > Find** and the memory from which to search, and enter a search text that matches the file name.

View memory consumption

To view what types of data you have in the device and how much memory the different data types consume, select **Options > Memory details**. The amount of available free memory is shown in **Free memory**.

Memory low—free memory

The device notifies you if the device or the memory card memory is low.

To free device memory, transfer data to a compatible memory card, if you have one. Mark files to be moved, and select **Move to folder > Memory card**, and a folder.

You can also transfer media files to a compatible PC, for example, using the transfer option in **Gallery**. See 'Back-up files', p. 33.

 **Tip!** You can use Nokia Phone Browser available in Nokia PC Suite to view the different memories in your device and transfer data.

To remove data to free memory, use **File mgr.**, or go to the respective application. For example, you can remove the following:

- Messages from **Inbox**, **Drafts**, and **Sent** folders in **Message**.
- Retrieved e-mail messages from the device memory
- Saved Web pages

- Saved images, videos, or sound files
- Contact information
- Calendar notes
- Downloaded applications. See also 'Application manager', p. 104.
- Any other data that you no longer need

Useful shortcuts

Use shortcuts to quickly get the most from your device. Refer to the relevant sections in this user guide for further details of the functions.

Standby mode

- To switch between applications that are open, press and hold , and select an application. If memory is low, the device may close some applications. The device saves any unsaved data before closing an application.
Leaving applications running in the background increases the demand on battery power and reduces the battery life.
- To start the camera, press and hold the capture key for more than 1 second.
- To call your voice mailbox (network service), press and hold **1**.
- To open multimedia applications, press or press and hold . See 'Media key', p. 93.

- To change the profile, press , and select a profile.
- To switch between **Normal** and **Silent** profiles, press and hold **#**. If you have two phone lines (network service), this action switches between the two lines.
- To open the last dialed numbers list, press .
- To use voice commands, press and hold .
- To start a connection to **Services** (network service), press and hold . See 'Services', p. 68.

For further shortcuts available in the standby mode, see 'Active standby mode', p. 92.

Edit text and lists

- To mark an item in a list, scroll to it, and press  and  at the same time.
- To mark multiple items in a list, press and hold  while you press  or . To end the selection, release , then release .
- To copy and paste text: To select letters and words, press and hold . At the same time, press  or  to highlight text. To copy the text to clipboard, while still holding , select **Copy**. To insert the text into a document, press and hold , and select **Paste**.



Help

Your device has context-sensitive help. When an application is open, select **Options** > **Help** to access help for the current view.

When you are reading the instructions, to switch between help and the application that is open in the background, press and hold .

To open help from the main menu, select **Tools** > **Help**. Select the desired application to view its help topics.



Tutorial

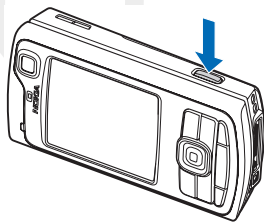
The tutorial gives you information about some of the features of your device. To access the tutorial in the menu, press , and select **My own** > **Tutorial** and the section you want to view.

Camera

Your Nokia N80 has two cameras, a high resolution camera on the back of the device (the main camera) and a lower resolution camera on the front (the secondary camera). Both cameras can be used to take still pictures and record video. The secondary camera on the front is used in portrait mode, and the main camera on the back in landscape mode.

The Nokia N80 device supports an image capture resolution of 2048 x 1536 pixels. The image resolution in these materials may appear different.

To activate the camera, press , and select **Imaging > Camera**, or press and hold the capture key. In the viewfinder, you can see the view to be captured. To switch between cameras, select **Options > Use secondary camera** or **Use main camera**.



The images and video clips are automatically saved in **Images & video** folder in **Gallery**. The cameras produce .jpeg images. Video clips are recorded in the 3GPP file format with the .3gp file extension (Normal and Sharing

video quality modes) or in the .mp4 file format (High video quality mode). See 'Video settings', p. 28.

You can send images and video clips in a multimedia message, as an e-mail attachment or by using Bluetooth connectivity.

Take pictures

If the camera is in **Video mode**, open the image mode by selecting **Options > Image mode**.

To select the secondary camera, for example, to include yourself in the picture, select **Options > Use secondary camera**.

To empty memory for new images, and delete copies of the transferred files, select **Options > Go to free memory** (main camera only).

To take a picture, in the main camera, press the capture key. When using the secondary camera, press the scroll key. Do not move the device before the image is saved.

To make lighting and color adjustments before taking a picture, select **Options > Image setup**. See 'Setup settings—Adjust color and lighting', p. 24.

Saving the captured image may take longer if you change the zoom, lighting, or color settings.

To select a shooting mode, select **Options > Image setup > Shooting mode**. See 'Shooting modes', p. 24.

The camera indicators show the following:

- The device memory (📁) and memory card (💾) indicators (1) show where images are saved.
- The images indicator (2) estimates how many images, depending on the selected image quality, fit in the remaining memory of your device or the memory card (if inserted).
- The shooting mode indicator (3) shows the active shooting mode.
- The flash indicator (4) shows if the flash is set to **Automatic** (🔦), **Red eye redu.** (👁), **On** (🔦), or **Off** (🚫).
- The self-timer indicator (5) shows that the self-timer is activated. See 'You in the picture—self-timer', p. 23.
- The sequence mode indicator (6) shows that the sequence mode is active. See 'Take pictures in a sequence', p. 23.



- The image resolution indicator (7) indicates the quality of the picture.

Shortcuts are as follows:

- Scroll up and down to zoom in and zoom out. The zoom indicator, which appears on the side pane, shows the zoom level.
- Scroll left to enter the **Image setup** settings. See 'Setup settings—Adjust color and lighting', p. 24.

When taking a picture, note the following:

- Use both hands to keep the camera still.
- To take images or record video in different environments, use the proper shooting mode for each environment.
- The quality of a zoomed picture is lower than that of a nonzoomed picture.
- The camera goes into the battery saving mode if there are no keypresses for a moment. To continue taking pictures, press **⏻**.

After the image is taken:

- If you do not want to keep the image, press **⏻**, or select **Options > Delete**.
- To send the image **Via multimedia**, **Via e-mail**, **Via Bluetooth**, or **Via infrared**, press **⏻**, or select **Options > Send**. For more information, see 'Messaging', p. 43 and 'Bluetooth connectivity', p. 80. This option is not available during an active call.

- To send an image to the other party during an active call, select **Options** > **Send to caller**.
- To edit the picture, select **Options** > **Edit**. See 'Edit images', p. 26.
- To print the picture, select **Options** > **Print**. See 'Image print', p. 38.

Take pictures in a sequence

Advanced sequence is available only in the main camera.

To set the camera to take several pictures in a sequence, select **Options** > **Advanced sequence**, and set the shooting frequency. The number of pictures is restricted by the available memory to a maximum of 100.

To take the pictures, press the capture key.

After you take the pictures, they are shown in a grid on the display. To view a picture, press  to open it.

You can also use the sequence mode with the self-timer.

To return to the sequence mode viewfinder, press the capture key.

You in the picture—self-timer

Self-timer is available only in the main camera.

Use the self-timer to delay the capture so that you can include yourself in the picture. To set the self-timer delay,

select **Options** > **Self timer** > **2 seconds**, **10 seconds**, or **20 seconds**. To activate the self-timer, select **Activate**. The self-timer indicator () blinks and the device beeps when the timer is running. The camera takes the picture after the selected delay elapses.

You can also use the self-timer in the sequence mode.

 **Tip!** Select **Options** > **Self timer** > **2 seconds** to keep your hand steady when taking a picture.

The flash

The flash is available only in the main camera.

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.

The camera has an LED flash for low light conditions. The following flash modes are available: **Automatic** () , **Red eye redu.** () , **On** () , and **Off** () .

To use the flash, select **Options** > **Image setup** > **Flash** > **On**.

If the flash is set to **Off** or **Automatic** during bright conditions, the flash still emits a low light when an image is captured. This  indicates to the subject of the picture that the picture is taken. There is no flash effect on the resultant picture.

If the flash is set to **Red eye redu.**, it decreases the redness of the eyes in the picture.

Setup settings—Adjust color and lighting

To enable the camera to reproduce colors and lighting more accurately, or to add effects to your pictures or videos, select **Options** > **Image setup** or **Video setup**, and select from the following options:

Shooting mode—Select a proper shooting mode for the environment in which you take pictures. Every shooting mode uses its own lighting settings that have been adjusted according to a certain kind of environment.

Flash (images only)—Set the flash according to the lighting conditions. See 'The flash', p. 23.

White balance—Select the current lighting condition from the list. This allows the camera to reproduce colors more accurately.

Exposure value (images only)—Adjust the exposure time of the camera.

Color tone—Select a color effect from the list.

Image sharpness (images only)—Adjust the sharpness of the image.

Brightness—Select the brightness you want.

Contrast—Select the contrast you want.

Color saturation—Adjust the depth of the colors in the picture.

The screen display changes to match any settings you make, so that you see how the change affects the pictures or videos.

The available settings vary depending on the selected camera.

The setup settings are camera specific; if you change the settings in the secondary camera, the settings in the main camera do not change. The setup settings do, however, transfer between the image and video modes.

The setup settings return to the default settings when you close the camera. If you select a new shooting mode, the settings are replaced by the settings of the selected shooting mode. See 'Shooting modes', p. 24. If you must change the setup settings, you can change them after selecting a shooting mode.

Shooting modes

A shooting mode helps you to find the right color and lighting settings for the current environment. Select a proper shooting mode for taking pictures or recording video clips from a shooting modes list. The settings of each

shooting mode have been set according to a certain style or environment.

Your device has a close-up switch located under the main camera lens. With the close-up switch you can select whether you want to take close-up pictures or pictures of text. To use the close-up mode as a default, turn the switch to close-up mode (). To switch between **Close-up mode** and **Document text** shooting modes, select **Options** > **Image setup** > **Shooting mode**.

To select another shooting mode, turn the switch back to the normal position () , select **Options** > **Image setup** or **Video setup** > **Shooting mode**, and the proper shooting mode.

Video shooting modes

Automatic () (default) and **Night** ()

Image shooting modes

Automatic () (default), **User** () , **Portrait** () , **Landscape** () , **Sports** () (when you use the **Sports** shooting mode, the resolution of the images is reduced to 1280x960. See **Image quality** in 'Still image camera settings', p. 25.), **Night landscape** () , **Night portrait** () , and **Candlelight** () .

When you take pictures, the default shooting mode is **Automatic**. You can select the **User** shooting mode as the default shooting mode.

To make your own shooting mode suitable for a certain environment, scroll to **User**, and select **Options** > **Change**. In the user defined shooting mode you can adjust different lighting and color settings. To copy the settings of another shooting mode, select **Based on shooting mode** and the desired shooting mode.

The available shooting modes vary depending on the selected camera.

Still image camera settings

There are two kinds of settings for the still image camera: **Image setup** and main settings. To adjust **Image setup**, see 'Setup settings—Adjust color and lighting', p. 24. The setup settings return to the default settings after you close the camera, but the main settings remain the same until you change them again. To change the main settings, select **Options** > **Settings** and from the following:

Image quality—**Print 3M – Large** (resolution 2048 x 1536), **Print 2M – Med.** (resolution 1600 x 1200), **Print 1.3M – Small** (resolution 1280 x 960), **E-mail 0.5M** (resolution 800 x 600), or **MMS 0.3M** (resolution 640 x 480). The better the image quality, the more memory the image consumes. If you want to print the image, select **Print 3M – Large**, **Print 2M – Med.**, or **Print 1.3M – Small**. If you want to send it through e-mail,

select **E-mail 0.5M**. To send the image through MMS, select **MMS 0.3M**.

Add to album—Select whether you want to save the image to a certain album in **Gallery**. If you select **Yes**, a list of available albums opens.

Show captured image—Select **Yes** if you want to see the captured image after it is taken, or **No** if you want to continue taking pictures immediately.

Extended zoom (main camera only)—Select **On** if you want to achieve maximum zoom when taking a picture. The quality of a zoomed picture is lower than that of a nonzoomed picture. If you want to limit the zoom to where the selected image quality is maintained, select **Off**.

Default image name—Define the default name for the images.

Shutter tone—Select the tone you want to hear when you take a picture.

Memory in use—Select where to store your images.

Edit images

To edit the pictures after taking them, or the ones already saved in **Gallery**, select **Options > Edit**.

Select **Apply effect** to, for example, crop and rotate the image; adjust the brightness, color, contrast, and resolution; and add effects, text, clip art, or a frame to the picture.

To crop an image, select **Options > Apply effect > Crop**. To crop the image size manually, select **Manual**, or select a predefined aspect ratio from the list. If you select **Manual**, a cross appears in the upper left corner of the image. Move the scroll key to select the area to crop, and select **Set**. Another cross appears in the lower right corner. Again select the area to be cropped. To adjust the first selected area, select **Back**. The selected areas form a rectangle, which forms the cropped image.

If you selected a predefined aspect ratio, select the upper left corner of the area to be cropped. To resize the highlighted area, use the scroll key. To freeze the selected area, press **⏏**. To move the area within the picture, use the scroll key. To select the area to be cropped, press **⏏**.

To reduce redness of the eyes in an image, select **Options > Apply effect > Red eye reduction**. Move the cross onto the eye, and press **⏏**. A loop appears on the display. To resize the loop to fit the size of the eye, move the scroll key. To reduce the redness, press **⏏**.

Shortcuts in the image editor:

- To view an image in the full screen, press ***** . To return to the normal view, press ***** again.

- To rotate an image clockwise or counterclockwise, press **3** or **1**.
- To zoom in or out, press **5** or **0**.
- To move on a zoomed image, scroll up, down, left, or right.

Record videos

If the camera is in **Image mode**, select video mode by selecting **Options > Video mode**.

To select the secondary camera to, for example, include yourself in the video, select **Options > Use secondary camera**.

To empty memory for new video clips, and delete copies of the transferred files, select **Options > Go to free memory** (main camera only).

- 1 In the main camera, press the capture key, or in the secondary camera, press  to start recording. The record icon  is shown. The LED flash is lit, and a tone sounds, indicating to the subject that video is being recorded. There is no flash effect on the resultant video.
- 2 To pause recording at any time, select **Pause**. The pause icon () blinks on the display. Video recording automatically stops if recording is set to pause and there are no keypresses within a minute.
- 3 Select **Continue** to resume recording.

- 4 Select **Stop**, to stop recording. The video clip is automatically saved to the **Images & video** folder of **Gallery**. See 'Gallery', p. 31.

To make lighting and color adjustments before recording a video, select **Options > Video setup**. See 'Setup settings—Adjust color and lighting', p. 24.

To select a shooting mode, select **Options > Video setup > Shooting mode**. See 'Shooting modes', p. 24.

Video recorder indicators show the following:

- The device memory () and memory card () indicators (1) show where the video is saved.
- The current video length indicator (2) shows elapsed time and time remaining.
- The shooting mode indicator (3) shows the active shooting mode.
- Image stabilizer (4) indicates that the image stabilizer is active, and dampens the effects of small movements on the image sharpness (main camera only).



- The microphone indicator (5) shows that the microphone is muted.
- The file format indicator (6) indicates the format of the video clip.
- The video quality indicator (7) indicates whether the quality of the video is **High**, **Normal** or **Sharing**.
- The video file type indicator (8) indicates the format in which the video clip is saved.

Shortcuts are as follows:

- Scroll up or down to zoom in or zoom out. The zoom indicator, which appears on the side pane, shows the zoom level.
- Scroll left to enter the **Video setup** settings. See 'Setup settings—Adjust color and lighting', p. 24.

After a video clip is recorded:

- To immediately play the video clip you just recorded, select **Options** > **Play**.
- If you do not want to keep the video, press **C**, or select **Options** > **Delete**.
- To send the video **Via multimedia**, **Via e-mail**, **Via Bluetooth**, or **Via infrared**, press **L**, or select **Options** > **Send**. For more information, see 'Messaging', p. 43 and 'Bluetooth connectivity', p. 80. This option is not available during an active call. You cannot send video clips saved in the .mp4 file format in a multimedia message.

- To send a video clip to the other party during an active call, select **Options** > **Send to caller**.
- To edit the video, select **Options** > **Edit**. See 'Edit video clips', p. 29.

Video settings

There are two kinds of settings for the video recorder: **Video setup** and main settings. To adjust **Video setup**, see 'Setup settings—Adjust color and lighting', p. 24. The setup settings return to the default settings after you close the camera, but the main settings remain the same until you change them again. To change the main settings, select **Options** > **Settings** and from the following:

Audio recording—Select **On** if you want to record both image and sound.

Video quality—Set the quality of the video clip to **High**, **Normal**, or **Sharing**. The quality is indicated with one of the following icons:  (High),  (Normal), or  (Sharing). If you select **High** or **Normal**, the length of the video recording is restricted by the available space on your memory card (if inserted), and up to 1 hour per clip. If you want to view the video on a compatible TV or PC, select **High** video quality, which has CIF resolution (352x288) and the .mp4 file format. You cannot send video clips saved in the .mp4 file format in a multimedia message. If you want to view the clip in mobile devices, select **Normal**,

which has QCIF resolution (176x144) and the .3gp file format. To send the video clip through MMS, select **Sharing** (QCIF resolution, .3gp file format). The video clip is limited to 300 KB (about 20 seconds in duration) so that it can be conveniently sent as a multimedia message to a compatible device. Some networks, however, may only support sending of multimedia messages with a maximum size of 100 KB. Contact your network operator or service provider for more information.

Add to album—Select whether you want to save the recorded video clip to a certain album in **Gallery**. Select **Yes** to open a list of available albums.

Show captured video—Select whether you want the first frame of the recorded video clip to be shown on the display after the recording stops. Select **Options** > **Play** to view the video clip.

Default video name—Define the default name for video clips.

Memory in use—Define the default memory store: device memory or memory card (if inserted).

Edit video clips

To edit video clips in **Gallery** and create custom video clips, scroll to a video clip, and select **Options** > **Edit**. See 'Gallery', p. 31. You can create custom video clips by

combining and trimming video clips, and adding images, sound clips, transitions, and effects. Transitions are visual effects that you can add in the beginning and end of the video or between the video clips.

In the video editor you can see two timelines: video clip timeline and sound clip timeline. The images, text, and transitions added to a video clip are shown on the video clip timeline. To switch between the timelines, scroll up or down.

Edit video, sound, image, text, and transitions

To create custom video clips, mark and select one or more video clips, and select **Options** > **Edit**.

To modify the video, select from the following options:

Edit video clip:

Cut—Trims the video clip in the Cut video clip view.

Add color effect—Inserts a color effect on the video clip.

Use slow motion—Slows the speed of the video clip.

Mute sound/Unmute sound—Mutes or unmutes the original video clip sound.

Move—Moves the video clip to the selected location.

Remove—Removes the video clip from the video.

Duplicate—Makes a copy of the selected video clip.

Edit text (shown only if you added text)—To move, remove or duplicate text; change the color and style of the text; define how long it stays on the screen; and add effects to the text.

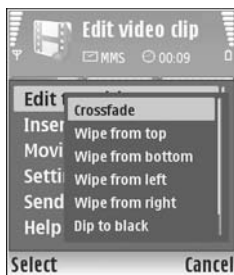
Edit image (shown only if you added an image)—To move, remove or duplicate an image; define how long it stays on the screen; and set a background or a color effect to the image.

Edit sound clip (shown only if you added a sound clip)—To cut or move the sound clip, to adjust its length, or to remove or duplicate the clip.

Edit transition—There are three types of transitions: at the start of a video, at the end of a video, and transitions between video clips. A start transition can be selected when the first transition of the video is active.

Insert—Video clip, Image, Text, Sound clip, or New sound clip.

Movie—Preview the movie in the full screen or as a thumbnail, save or send the movie, or cut the movie to a proper size for sending it in a multimedia message.



To take a snapshot of a video clip, in the Cut video view, select **Options > Take snapshot**, or in the thumbnail Preview view, press , and select **Take snapshot**.

To save your video, select **Options > Movie > Save**. To define the **Memory in use**, select **Options > Settings**. The default is the device memory.

In the **Settings** view, you can also define **Default video name**, **Default sc. shot name**, **Resolution**, and **Memory in use**.

Select **Send > Via multimedia**, **Via e-mail**, **Via Bluetooth**, or **Via infrared**, if you want to send the video. Contact your network operator or service provider for details of the maximum multimedia message size that you can send. If your video is too large to send in a multimedia message,  appears.

 **Tip!** If you want to send a video clip that is over the maximum multimedia message size allowed by your service provider, you can send the clip using Bluetooth wireless technology. See 'Send data using Bluetooth connectivity', p. 82. You can also transfer your videos into a compatible PC using Bluetooth connectivity, or by using a compatible SD memory card reader (enhancement).



Gallery

To store and organize your images, video clips, sound clips, playlists, and streaming links, or share your files with other compatible Universal Plug and Play (UPnP) devices through wireless LAN, press , and select **Gallery**. To open the gallery from the **Camera** application, select **Options > Go to Gallery**. From **Camera**, only the **Images & video** folder is available.

 **Tip!** To switch from **Gallery** to the camera, in the **Images & video** folder, select **Camera**.

Select **Images & video** , **Tracks** , **Sound clips** , **Streaming links** , **Presentations** , **All files** , or **Home network** , and press  to open it.

You can browse and open folders, mark, copy, and move items to folders. You can also create albums; and mark, copy, and add items to albums. See 'Albums', p. 33.

To open a file, press . See 'View images and video clips', p. 32. Video clips, .ram files, and streaming links are



opened and played in the RealPlayer application, and the sound clips in the Music player application. See 'RealPlayer', p. 39, and 'Music player', p. 37.

To copy or move files to a compatible memory card (if inserted) or to device memory, select a file and **Options > Organize > Copy to memory card/Move to memory card** or **Copy to phone mem./Move to phone mem..**

Files stored on the memory card (if inserted) are indicated with .

To reduce the size of files that you already copied to other locations, such as to a compatible PC, select **Options > Shrink**. Selecting **Shrink** reduces the resolution of an image to 640x480. To increase free memory space, select a file and **Options > Free memory**. See 'Back-up files', p. 33.

To download files into **Gallery** in one of the main folders using the browser, select **Graphic downl.** or **Video downl.**, **Track downl.**, or **Sound downl.**. The browser opens, and you can select a bookmark from which the site can download.

View images and video clips

Pictures taken and video clips recorded with the camera are stored in the **Images & video** folder in **Gallery**. The quality of a video clip is indicated with one of the following icons:  (High),  (Normal) and  (Sharing). Images and video clips can also be sent to you in a multimedia message, as an e-mail attachment, through Bluetooth connectivity, or by using infrared. To be able to view a received image or video clip in the gallery or in the media player, you must save it in the device memory or on a compatible memory card (if inserted).

Open the **Images & video** folder in **Gallery**. The images and video clip files are in a loop, and ordered by date. The number of files can be seen on the display. To browse the files, scroll up or down. To browse the files in a continuous loop, press and hold the scroll key up or down.

To browse files in groups, scroll left or right.

To edit a photo or a video clip, select **Options > Edit**. An image editor or a video editor opens.

To add an image or a video clip to an album in **Gallery**, select **Options > Albums > Add to Album**. See 'Albums', p. 33.

To create custom video clips, select a video clip, or several clips in **Gallery**, and select **Options > Edit**. See 'Edit video clips', p. 29.

To print your images on a compatible printer connected to your device, or to store them on your memory card (if inserted) for printing, select **Options > Print**. See 'Image print', p. 38.

To zoom an image, select **Options > Zoom in** or **Zoom out**. The zooming ratio is at the top of the display. The zooming ratio is not stored permanently.

To use the picture as a background image, select the picture, and **Options > Set as wallpaper**.

To delete an image or video clip, press .

Slide show

Select **Options > Slide show > Start** to view images and video clips in the full screen mode. The slide show starts from the oldest file. Select from the following:

- **Play**—to open the RealPlayer application, and play a video clip
- **Pause**—to pause the slide show
- **Continue**—to resume the slide show
- **End**—to close the slide show

To browse the images, press  (previous) or  (next).

To adjust the tempo of the slide show, before starting the slide show, select **Options** > **Slide show** > **Settings** > **Delay between slides**.

To add sound to the slide show, select **Options** > **Slide show** > **Settings** and from the following:

- **Music**—Select **On** or **Off**.
- **Track**—Select a music file from the list.

To decrease or increase the volume, press  or .

Presentations

With presentations, you can view SVG (scalable vector graphics) files, such as cartoons and maps. SVG images maintain their appearance when printed or viewed with different screen sizes and resolutions. To view SVG files, select the **Presentations** folder, scroll to an image, and select **Options** > **Play**.

To zoom in, press **5**. To zoom out, press **0**.

To switch between full screen and normal screen, press *****.

Albums

With albums you can conveniently manage your images and video clips. To view the albums list, in the **Images & video** folder, select **Options** > **Albums** > **View albums**.

To create a new album, select **Options** > **New album**. Enter a name for the album, and select **OK**.

To add a picture or a video clip to an album in **Gallery**, scroll to a picture or video clip, and select **Options** > **Albums** > **Add to album**. A list of albums opens. Select the album to which you want to add the picture or video clip, and press .

To remove a file from an album, press . The file is not deleted from the **Images & video** folder in **Gallery**.

Back-up files

To transfer and back-up media files from your device to a compatible PC through the Wireless LAN, select **Options** > **Transfer** > **Start**. See 'Wireless LAN', p. 14.

Your device starts a device search. Select a device, and a folder to which you want to transfer the media files. Press **OK**.

To change the **Storage device** or **Storage folder** settings, select **Options** > **Settings**.



Home network

Your device is compatible with Universal Plug and Play architecture (UPnP). Using a wireless LAN access point

device or a wireless LAN router, you can create a home network and connect compatible UPnP devices that support wireless LAN to the network, such as your Nokia N80, a compatible PC, a compatible printer, and a compatible sound system or a TV, or a sound system or TV equipped with a compatible wireless multimedia receiver.

Please note that using the wireless LAN functionality of the Nokia N80 in a home network requires a working wireless LAN home connection setup and the other target home devices to be UPnP enabled and to be connected to the same home network.

You can share media files saved in **Gallery** with other compatible UPnP devices using the home network. To manage your **Home network** settings, press , and select **Connect. > Home network**. You can also use the home network to view, play, copy, or print compatible media files from **Gallery**. See 'View media files', p. 35.

Home network settings

To share media files saved in **Gallery** with other compatible UPnP devices through wireless LAN, you must first create and configure your wireless LAN home Internet access point, and then configure the **Home network** application. See 'Wireless LAN', p. 14, and the wireless LAN settings in 'Access points', p. 96 and 'Wireless LAN', p. 99.

The options related to **Home network** are not available in **Gallery** before the **Home network** settings have been configured.

Configure Settings

To configure the **Home network** application, select **Connect. > Home network > Settings**, and from the following:

Content sharing—Allow or deny sharing media files with compatible devices. Do not set **Content sharing** on before you have configured all the other settings. If you set **Content sharing** on, the other UPnP compatible devices in the home network can view and copy your files.

Home access point—Select your home Internet access point. If your home network does not have wireless LAN security settings enabled, you will get a security warning. You can continue, and switch the wireless LAN security on later; or cancel defining the access point, and first switch on the wireless LAN security. See Wireless LAN in 'Access points', p. 96.

My device name— Enter a name for your device that is shown to the other compatible devices in the home network.

Define content for sharing

When you set **Content sharing** on, the other UPnP compatible devices in the home network can view and copy the files you want to share with them.

To select media files for sharing with other devices, or to view the sharing status of **Images & video** or **Music** albums, select **Share content**.

View media files

To connect a compatible PC to the home network, you must install the related software from the CD-ROM supplied with your Nokia N80.

If **Content sharing** is on in your device, the other UPnP compatible devices in the home network can view and copy the media files you have selected to share in **Share content**. If you do not want the other devices to access your files, set **Content sharing** off. Even if **Content sharing** is off in your device, you can still view and copy the media files stored in another home network device if it is allowed by the other device.

Show media files stored in your device

To select images, videos, and sound clips stored in your device, and show them in another home network device, such as a compatible TV, do the following:

- 1 In **Gallery**, select an image, a video clip, or a sound clip.

- 2 Select **Options** > **Enable external**.
- 3 Select a compatible device in which the media file is shown. The images are shown both in the other home network device and your device, and the video clips and sound clips are played only in the other device.

Show media files stored in the other device

To select media files that are stored on another home network device, and show them in your device; or in a compatible TV, for example, do the following:

- 1 In **Gallery**, select **Home network**. Your device starts the search of other compatible devices. Device names start to appear on the display.
- 2 Select a device from the list.
- 3 Select the type of media you want to view from the other device. The available file types depend on the features of the other device.
- 4 Select the image, video clip, or music clip you want to view, and select **Options** > **Enable external** (images and video) or **Play via home network** (music).
- 5 Select the device in which the file is shown.

To stop sharing the media file, select **Options** > **Disable external**.

To print images saved in **Gallery** through **Home network** with a UPnP compatible printer, select the print option in **Gallery**. See 'Image print', p. 38. **Content sharing** does not have to be switched on.

To search files with different criteria, select [Options](#) > [Find](#). To sort the found files, select [Options](#) > [Sort by](#).

Copy media files

To copy or transfer media files from your device to another compatible device, such as a UPnP compatible PC, select a file in [Gallery](#), and [Options](#) > [Organize](#) > [Copy to home network](#) or [Move to home network](#). [Content sharing](#) does not have to be switched on.

To copy or transfer files from the other device to your device, select a file in the other device, and [Options](#) > [Copy to phone](#) or [Copy to memory card](#). [Content sharing](#) does not have to be switched on.

FCC Draft

Media applications



Music player

Press **Ⓜ**, and select **Mus. plyr..** With the music player, you can play music files and create and listen to playlists.



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.

Add music

When you open the music player for the first time, the player searches the device memory for music files to create a music library.

After you add or remove music files in the device, update your music library. Select **Options > Music library > Options > Update Music library.**



Tip! You can transfer music files from your device to a compatible memory card (if inserted) with Nokia Audio Manager available in Nokia PC Suite.

Play music

When you open the music player, the previously played track or playlist is displayed. To view the music library, select **Ⓜ** or **Options > Music library** and the desired song list. To start playing the songs in the view, select **Options > Play.**

When a song is playing, to change between play and pause, press **▶** or **⏸**.

To stop a song, press **■**. To fast forward or rewind, press and hold **⏮** or **⏭**. To start playing the next or previous song, press **⏮** or **⏭**.

To view the currently played song list, select **Ⓜ** or **Options > Open 'Now playing'.** To save the song list as a playlist, select **Options > Add to track list**, and create a new playlist, or select a saved playlist.

To adjust the volume, press **🔊** or **🔇**.



To select between random play and normal play mode, select **Options > Random play**. To select whether playing stops at the end of the playlist or restarts from its beginning, select **Options > Loop**.

 **Tip!** To leave the application open and music playing in the background, press  twice to return to the standby mode. To return to the application, press , and select **Mus. plyr.**

To open your Web bookmarks for downloading music, select **Options > Track downloads**.

To return to the standby mode and leave the music playing in the background, select **Options > Play in background**.

Music library

To view the music library, select **Options > Music library**. **All tracks** lists all music. To view sorted songs, select **Albums, Artists, Genres, or Composers**. The album, artist, genre, and composer information is collected from the ID3 or M4A tags of the song files, if available.

To add songs, albums, artists, genres or composers to a playlist, select the items and **Options > Add to track list**. You can create a new playlist or add to an existing one.

To view playlists, select **Track lists**. To create a new playlist, select **Options > New track list**. When viewing a

playlist you have created yourself, to add more songs, select **Options > Add tracks**.

To delete a playlist, press . Deleting a playlist only deletes the playlist, not the music files.

Image print

To print images with **Image print**, select the image you want to print, and the print option in the gallery, camera, image editor, or image viewer.

Use **Image print** to print your images using a data cable, wireless LAN (if available), Bluetooth connectivity, or a compatible memory card (if available).

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



Note: To print to a printer compatible with PictBridge, connect the data cable before you select the print option.

Printer selection

When you use **Image print** for the first time, a list of available printers is displayed after you select the image. Select a printer. The printer is set as the default printer.

If you have connected a printer compatible with PictBridge using the CA-53 cable, the printer is automatically displayed.

If the default printer is not available, a list of available printing devices is displayed.

To change the default printer, select **Options > Settings > Default printer**.

Print preview

The print preview view opens only when you start printing an image in the gallery.

The selected images are displayed using predefined layouts. To change the layout, scroll left and right through the available layouts for the selected printer. If the images do not fit on a single page, scroll up or down to display the additional pages.

Print settings

The available options vary, depending on the capabilities of the printing device you selected.

To set a default printer, select **Options > Default printer**.

To select the paper size, select **Paper size**, the size of paper from the list, and **OK**. Select **Cancel** to return to the previous view.



RealPlayer

Press **⌘**, and select **Imaging > RealPlyr..** With **RealPlyr..**, you can play video clips, or stream media files over the air. You can activate a streaming link when you browse Web pages, or store it in the device memory or a compatible memory card (if inserted).

Tip! You can also view video clips or streaming links in your device with other compatible UPnP devices, such as a TV or a PC, through wireless LAN. See 'View media files', p. 35.

RealPlyr. supports files with extensions such as .3gp, .mp4 or .rm. However, **RealPlyr.** does not necessarily support all file formats or all the variations of file formats. For example, **RealPlyr.** attempts to open all .mp4 files, but some .mp4 files may include content that is not compliant with 3GPP standards and, therefore, is not supported by this device.

Play video clips

- To play a media file stored in device memory, or on the memory card (if inserted), select **Options > Open** and from the following:
Most recent clips—to play one of the last six files played in **RealPlyr.**

Saved clip—to play a file saved in **Gallery**.

See 'Gallery', p. 31.

- 2 Scroll to a file, and press  to play the file.

 **Tip!** To view a video clip in full screen mode, press **2**. To change back to normal screen mode, press any key.

Shortcuts during play:

- To fast forward, press and hold .
- To rewind through the media file, press and hold .
- To mute the sound, press and hold  until  is displayed. To turn on the sound, press and hold  until you see .

Stream content over the air

Many service providers require you to use an Internet access point (IAP) for your default access point. Other service providers allow you to use a WAP access point.

The access points may be configured when you first start your device.

Contact your service provider for more information.

 **Note:** In **RealPlyr**., you can only open an `rtsp://` URL address. However, **RealPlyr**. recognizes an `http` link to a `.ram` file.

To stream content over the air, select a streaming link saved in **Gallery**, on a Web page, or received in a text

message or multimedia message. Before live content begins streaming, your device connects to the site and starts loading the content. The content is not saved in your device.

Receive RealPlayer settings

You may receive **RealPlyr**. settings in a special text message from the network operator or service provider. See 'Data and settings', p. 48. For more information, contact your network operator or service provider.

Change the RealPlayer settings

Select **Options** > **Settings** and from the following:

Video—to have **RealPlyr**. automatically repeat video clips after they finish playing.

Connection—to select whether to use a proxy server, change the default access point, and set the port range used when connecting. Contact your service provider for the correct settings.

Proxy sett.:

Use proxy—To use a proxy server, select **Yes**.

Proxy serv. address—Enter the IP address of the proxy server.

Proxy port number—Enter the port number of the proxy server.

Glossary: Proxy servers are intermediate servers between media servers and their users. Some service providers use them to provide additional security or speed up access to browser pages that contain sound or video clips.

Netw. sett.:

Default access point—Scroll to the access point you want to use to connect to the Internet, and press .

Online time—Set the time for **RealPlyr.** to disconnect from the network when you pause a media clip playing through a network link. Select **User defined**, and press . Enter the time, and select **OK**.

Lowest UDP port—Enter the lowest port number of the server's port range. The minimum value is 1024.

Highest UDP port—Enter the highest port number of the server's port range. The maximum value is 65535.

Select **Options > Advanced settings** to edit the bandwidth values for different networks.



Movie director

To create muvees, press , and select **Imaging > Movie**. muvees are short, edited video clips that can contain video, images, music, and text. **Quick muvee** is created

automatically by **Movie director** after you select the style for the muvee. **Movie director** uses the default music and text associated with the chosen style. In a **Custom muvee** you can select your own video and music clips, images and style, and add an opening and closing message. You can send muvees with MMS.

Open **Movie**, and press  or  to move between the  and  views. You can also return to the main view from the  view by selecting **Done**.

The  view contains a list of video clips that you can **Play**, **Send**, **Rename**, and **Delete**.

Create a quick muvee

- 1 In the **Movie director** main view, select **Quick muvee**.
- 2 Select a style for the muvee from the style list. The created muvee is saved in the **Movie director** muvee list. The muvee is played automatically after saving.

Create a custom muvee

- 1 In the **Movie Director** main view, select **Custom muvee**.
- 2 Select the clips you want to include in your muvee in **Video**, **Image**, **Style**, or **Music**. After you select video clips and images, to define the order in which the files are played in the muvee, select **Options > Advanced options**. To select the file you

want to move, press . Then scroll to the file below which you want to place the marked file, and press .

To cut the video clips, select **Options > Select contents**. See 'Select content', p. 42.

In **Message** you can add an opening and closing text to a muvee.

- 3 Select **Create muvee** and from the following:
Multimedia message—to optimize the length of the muvee for MMS sending
Auto-select—to include all the selected pictures and video clips in the muvee
Same as music—to set the muvee duration to be the same as the chosen music clip
User defined—to define the length of the muvee
- 4 Select **Options > Save**.

To preview the custom muvee before saving it, in the **Preview** view, select **Options > Play**.

To create a new custom muvee by using the same style settings, select **Options > Recreate**.

Select content

To edit the selected video clips, select **Options > Advanced options > Options > Select contents**. You can select which parts of the video clip you want to include or exclude in the muvee. In the slider, green is for included, red is for excluded, and grey is for neutral parts.

To include a part of the video clip in the muvee, scroll to the part, and select **Options > Include**. To exclude a part, select **Options > Exclude**. To exclude a shot, select **Options > Exclude shot**.

To let **Movie director** randomly include or exclude a part of the video clip, scroll to the part, and select **Options > Mark as neutral**.

To let **Movie director** randomly include or exclude parts of video clip, select **Options > Mark all as neutral**.

Settings

Select **Settings** to edit the following options:

Memory in use—Select where to store your muvees.

Resolution—Select the resolution of your muvees.

Default muvee name—Set a default name for the muvees.



Messaging

Press , and select **Messag.** (network service). In **Messag.**, you can create, send, receive, view, edit, and organize text messages, multimedia messages, e-mail messages, and special text messages containing data. You can also receive Web service messages, cell broadcast messages, and send service commands. Messages and data received using Bluetooth connectivity or infrared are received in the **Inbox** folder in **Messag.**

To create a new message, select **New message.**



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

Messag. contains the following folders:



Inbox—Received messages, except e-mail and cell broadcast messages, are stored here. E-mail messages are stored in the **Mailbox**.



My folders—Organize your messages into folders.



Tip! To avoid rewriting messages that you send often, use texts in the templates folder.



Mailbox—Connect to your remote mailbox to retrieve your new e-mail messages or view your previously retrieved e-mail messages offline. See 'E-mail', p. 53.



Drafts—Draft messages that have not been sent are stored here.



Sent—The last 20 messages that have been sent, excluding messages sent using Bluetooth connectivity or infrared, are stored here. To change the number of messages to be saved, see 'Other settings', p. 55.



Outbox—Messages waiting to be sent are temporarily stored here.



Example: Messages are placed in the outbox, for example, when your device is outside network coverage. You can also schedule e-mail messages to be sent the next time you connect to your remote mailbox.



Reports—You can request the network to send you a delivery report of the text messages and multimedia messages you have sent (network service). Receiving a delivery report of a multimedia message that has been sent to an e-mail address may not be possible.

 **Tip!** When you have opened any of the default folders, to switch between the folders, press  or .

To enter and send service requests (also known as USSD commands), such as activation commands for network services, to your service provider, select **Options** > **Service command** in the main view of **Message**.

Cell broadcast (network service) allows you to receive messages on various topics, such as weather or traffic conditions, from your service provider. For available topics and relevant topic numbers, contact your service provider. In the main view of **Messaging**, select **Options** > **Cell broadcast**. In the main view, you can see the status of a topic, a topic number, name, and whether it has been flagged () for follow-up.

Cell broadcast messages cannot be received in UMTS networks. A packet data connection may prevent cell broadcast reception.

Write text

ABC, abc, and Abc indicate the selected character mode. 123 indicates the number mode.

Traditional text input

 is displayed when you are writing text using traditional text input.

- Press a number key (**1** – **9**) repeatedly until the desired character appears. There are more characters available for a number key than are printed on the key.
- If the next letter is located on the same key as the present one, wait until the cursor appears (or press  to end the time-out period), and enter the letter.
- To insert a space, press **0** . To move the cursor to the next line, press **0** three times.

Predictive text input

You can enter any letter with a single keypress. Predictive text input is based on a built-in dictionary to which you can add new words.  is displayed when you write text using predictive text input.

- 1 To activate predictive text input, press , and select **Predictive text on**. This activates predictive text input for all editors in the device.
- 2 To write the desired word, press the keys **2** – **9** . Press each key only once for one letter. For example, to write "Nokia" when the English dictionary is selected, press **6** for N, **6** for o, **5** for k, **4** for i, and **2** for a.

	abc
0	
	abc
0n	
	abc
0ni	
	abc
0nli	
	abc
Nokia	

The word suggestion changes after each keypress.

- 3 When you finish writing the word correctly, press  to confirm it, or press  to add a space. If the word is not correct, press  repeatedly to view the matching words the dictionary has found one by one, or press , and select **Predictive text > Matches**.

If the  character is shown after the word, the word is not in the dictionary. To add a word to the dictionary, select **Spell**, enter the word using traditional text input, and select **OK**. The word is added to the dictionary. When the dictionary is full, a new word replaces the oldest added word.

- 4 Start writing the next word.

Write compound words

Write the first half of a compound word; to confirm it, press . Write the last part of the compound word. To complete the compound word, press  to add a space.

Turn predictive text input off

To turn predictive text input off for all editors in the device, press , and select **Predictive text > Off**.

-  **Tip!** To turn predictive text input on or off, quickly press  twice.

Tips on text input

To insert a number in the letter mode, press and hold the desired number key.

To switch between the letter and number mode, press and hold .

To switch between the different character modes, press .

To delete a character, press . To delete more than one character, press and hold .

The most common punctuation marks are available under .

To open a list of special characters, press and hold .

-  **Tip!** To insert several special characters at the same time, press  when you select each character.

Write and send messages

The appearance of a multimedia message may vary, depending on the receiving device.

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

Before you can create a multimedia message or write an e-mail, you must have the correct connection settings in

place. See 'Receive MMS and e-mail settings', p. 47 and 'E-mail', p. 53.

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

- 1 Select **New message** and from the following:
Text msg.—to send a text message
Multimedia message—to send a multimedia message (MMS)

E-mail—to send an e-mail

If you have not set up your e-mail account, you are prompted to do so. To start creating the e-mail settings with the mailbox guide, select **Start**.

- 2 In the **To** field, press  to select recipients or groups from contacts, or enter the recipient's phone number or e-mail address. To add a semicolon (;) that separates the recipients, press *****. You can also copy and paste the number or address from the clipboard.



- 3 In the **Subject** field, enter the subject of a multimedia message or e-mail. To change the fields that are visible, select **Options** > **Address fields**.
- 4 In the message field, write the message. To insert a template, select **Options** > **Insert** or **Insert object** > **Template**.
- 5 To add a media object to a multimedia message, select **Options** > **Insert object** > **Image**, **Sound clip**, or **Video clip**. When sound is added,  is shown. You cannot send video clips that are saved in the .mp4 format in a multimedia message. To change the format in which recorded videos are saved, see 'Video settings', p. 28.
- 6 To take a new picture or record sound or video for a multimedia message, select **Insert new** > **Image**, **Sound clip**, or **Video clip**. To insert a new slide to the message, select **Slide**.
To see what the multimedia message looks like, select **Options** > **Preview**.
- 7 To add an attachment to an e-mail, select **Options** > **Insert** > **Image**, **Sound clip**, **Video clip**, or **Note**. E-mail attachments are indicated by .
-  **Tip!** To send other file types as attachments, open the appropriate application, and select **Send** > **Via e-mail**, if available.
- 8 To send the message, select **Options** > **Send**, or press .

Your device supports the sending of text messages beyond the character limit for a single message. Longer messages are sent as a series of two or more messages. Your service provider may charge accordingly. Characters that use accents or other marks, and characters from some language options like Chinese, take up more space limiting the number of characters that can be sent in a single message. In the navigation bar, you can see the message length indicator counting backwards. For example, 10 (2) means that you can still add 10 characters for the text to be sent as two messages.

E-mail messages are automatically placed in **Outbox** before sending. If sending does not succeed, the e-mail is left in the **Outbox** with the **Failed** status.

 **Tip!** You can combine images, video, sound, and text to a presentation and send it in a multimedia message. Start to create a multimedia message, and select **Options > Create presentation**. The option is shown only if **MMS creation mode** is set to **Guided** or **Free**. See 'Multimedia messages', p. 52.

Receive MMS and e-mail settings

You may receive the settings in a message from your network operator or service provider. See 'Data and settings', p. 48.

Enter the MMS settings manually

- 1 Press , and select **Tools > Settings > Connection > Access points**, and define the settings for a multimedia messaging access point. See 'Connection', p. 95.
- 2 Press , and select **Messaging > Options > Settings > Multim. msg. > Access point in use** and the access point you created as the preferred connection. See also 'Multimedia messages', p. 52.

Before you can send, receive, retrieve, reply to, and forward e-mail, you must do the following:

- Configure an Internet access point (IAP) correctly. See 'Connection', p. 95.
- Define your e-mail settings correctly. If you select **Mailbox** in the **Msgag.** main view and have not set up your e-mail account, you are prompted to do so. To start creating the e-mail settings with the mailbox guide, select **Start**. See also 'E-mail', p. 53. You must have a separate e-mail account. Follow the instructions given by your remote mailbox and Internet service provider (ISP).



Inbox—receive messages

In the **Inbox** folder,  indicates an unread text message,  an unread multimedia message,  data

received through infrared, and  data received through Bluetooth connectivity.

When you receive a message,  and **1 new message** are shown in the standby mode. To open the message, select **Show**. To open a message in **Inbox**, scroll to it, and press .

To reply to a received message, select **Options > Reply**.

To print a text or a multimedia message on a compatible Basic Print Profile (BPP) equipped printer with Bluetooth connectivity (such as HP Deskjet 450 Mobile Printer or HP Photosmart 8150), select **Options > Print**.

Multimedia messages

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

You may receive a notification that a multimedia message is waiting in the multimedia message center. To start a packet data connection to retrieve the message to your device, select **Options > Retrieve**.

When you open a multimedia message () , you may see an image and a message.  is shown if sound is included, or  if video is included. To play the sound or the video, select the indicator.

To see the media objects that have been included in the multimedia message, select **Options > Objects**.

If the message includes a multimedia presentation,  is displayed. To play the presentation, select the indicator.

Data and settings

Your device can receive many kinds of messages that contain data ():

Configuration message—You may receive settings from your network operator, service provider, or company information management department in a configuration message. To save the settings, select **Options > Save all**.

Business card—To save the information to **Contacts**, select **Options > Save business card**. Certificates or sound files attached to the business card are not saved.

Ringling tone—To save the ringling tone, select **Options > Save**.

Operat. logo—To have the logo shown in the standby mode instead of the network operator's own identification, select **Options > Save**.

Calen. entry—To save the invitation, select **Options > Save to Calendar**.

Web message—To save the bookmark to the bookmarks list in Web, select **Options > Add to bookmarks**. If the

message contains both access point settings and bookmarks, to save the data, select **Options** > **Save all**.

E-mail notif.—The note tells you how many new e-mails you have in your remote mailbox. An extended notification may list more detailed information.

Web service messages

Web service messages (📧) are notifications (for example, news headlines) and may contain a text message or a link. For availability and subscription, contact your service provider.



Mailbox

If you select **Mailbox** and have not set up your e-mail account, you are prompted to do so. To start creating the e-mail settings with the mailbox guide, select **Start**. See also 'E-mail', p. 53.

When you create a new mailbox, the name you give to the mailbox replaces **Mailbox** in the **Messaging** main view. You can have up to six mailboxes.

Open the mailbox

When you open the mailbox, the device asks if you want to connect to the mailbox (**Connect to mailbox?**).

To connect to your mailbox and retrieve new e-mail headings or messages, select **Yes**. When you view messages online, you are continuously connected to a remote mailbox using a data connection. See also 'Connection', p. 95.

To view previously retrieved e-mail messages offline, select **No**. When you view e-mail messages offline, your device is not connected to the remote mailbox.

Retrieve e-mail messages

If you are offline, select **Options** > **Connect** to start a connection to the remote mailbox.



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

- 1 When you have an open connection to a remote mailbox, select **Options** > **Retrieve e-mail** and one of the following:
New—to retrieve all new e-mail messages
Selected—to retrieve only the e-mail messages that have been marked
All—to retrieve all messages from the mailbox

- To stop retrieving messages, select **Cancel**.
- 2 After you retrieve the e-mail messages, you can continue viewing them online, or select **Options** > **Disconnect** to close the connection and view the e-mail messages offline.

E-mail status indicators:

-  The new e-mail (offline or online mode) has not been retrieved to your device.
 -  The new e-mail has been retrieved to your device.
 -  The e-mail message has been read, and it has not been retrieved to your device.
 -  The e-mail message has been read.
 -  The e-mail heading has been read and the message content has been deleted from the device.
- 3 To open an e-mail message, press . If the e-mail message has not been retrieved and you are offline, you are asked if you want to retrieve this message from the mailbox.

To view e-mail attachments, open a message that has the attachment indicator , and select **Options** > **Attachments**. If the attachment has a dimmed indicator, it has not been retrieved to the device; select **Options** > **Retrieve**.

To print an e-mail message on a compatible Basic Print Profile (BPP) equipped printer with Bluetooth connectivity (such as HP Deskjet 450 Mobile Printer or HP Photosmart 8150), select **Options** > **Print**.

Retrieve e-mail messages automatically

To retrieve messages automatically, select **Options** > **E-mail settings** > **Automatic retrieval** > **Header retrieval** > **Always on** or **Only in home net.**, and define when and how often the messages are retrieved.

Retrieving e-mail messages automatically may increase your call costs due to the data traffic.

Delete e-mail messages

To delete the contents of an e-mail message from the device while still retaining it in the remote mailbox, select **Options** > **Delete**. In **Delete msg. from:**, select **Phone only**.

The device mirrors the e-mail headings in the remote mailbox. Although you delete the message content, the e-mail heading stays in your device. If you want to remove the heading as well, you must first delete the e-mail message from your remote mailbox, and then make a connection from your device to the remote mailbox again to update the status.

To delete an e-mail from the device and the remote mailbox, select **Options** > **Delete**. In **Delete msg. from:**, select **Phone and server**.

If you are offline, the e-mail is deleted first from your device. During the next connection to the remote mailbox,

it is automatically deleted from the remote mailbox. If you are using the POP3 protocol, messages marked to be deleted are removed only after you have closed the connection to the remote mailbox.

To cancel deleting an e-mail from the device and server, scroll to an e-mail that has been marked to be deleted during the next connection (⊖), and select **Options** > **Undelete**.

Disconnect from the mailbox

When you are online, to end the data connection to the remote mailbox, select **Options** > **Disconnect**.

View messages on a SIM card

Before you can view SIM messages, you must copy them to a folder in your device.

- 1 In the **Message** main view, select **Options** > **SIM messages**.
- 2 Select **Options** > **Mark/Unmark** > **Mark** or **Mark all** to mark messages.
- 3 Select **Options** > **Copy**. A list of folders opens.
- 4 To start copying, select a folder and **OK**. To view the messages, open the folder.

Messaging settings

Fill in all fields marked with **Must be defined** or with a red asterisk. Follow the instructions given by your service provider. You may also obtain settings from your service provider in a configuration message.

Some or all message centers or access points may be preset for your device by your service provider or network operator, and you may not be able to change, create, edit, or remove them.

Text messages

Press , and select **Message** > **Options** > **Settings** > **Text msg.** and from the following:

Message centers—View a list of all text message centers that have been defined.

Character encoding—To use character conversion to another encoding system when available, select **Reduced support**.

Msg. center in use—Select which message center is used to deliver text messages.

Receive report—Select whether the network sends delivery reports on your messages (network service).

Message validity—Select how long the message center resends your message if the first attempt fails (network

service). If the recipient cannot be reached within the validity period, the message is deleted from the message center.

Message sent as—Change this option only if you are sure that your message center is able to convert text messages into these other formats. Contact your network operator.

Preferred conn.—Select the connection used for sending text messages: GSM network or packet data, if supported by the network. See 'Connection', p. 95.

Reply via same ctr.—Select whether you want the reply message to be sent using the same text message center number (network service).

Multimedia messages

Press , and select **Message** > **Options** > **Settings** > **Multimedia message** and from the following:

Image size—Define the size of the image in a multimedia message: **Original** (shown only when the **MMS creation mode** is set to **Guided** or **Free**), **Small**, or **Large**.

MMS creation mode—If you select **Guided**, the device informs you if you try to send a message that may not be supported by the recipient. Select **Restricted**; the device prevents you from sending messages that may not be supported.

Access point in use—Select which access point is used as the preferred connection for the multimedia message center.

Multimedia retrieval—Select how you want to receive multimedia messages. To receive multimedia messages automatically in your home network, select **Aut. in home network**. Outside your home network, you receive a notification that there is multimedia message that you can retrieve in the multimedia message center.

When you are outside your home network, sending and receiving multimedia messages may cost you more.

If you select **Multimedia retrieval** > **Always automatic**, your device automatically makes an active packet data connection to retrieve the message both in and outside your home network.

Allow anon. msgs.—Select whether you want to reject messages from an anonymous sender.

Receive ads—Define whether you want to receive multimedia message advertisements.

Receive report—Select whether you want the status of the sent message to be shown in the log (network service). Receiving a delivery report of a multimedia message that has been sent to an e-mail address may not be possible.

Deny report sending—Select whether you want to deny your device sending delivery reports of received multimedia messages.

Message validity—Select how long the message center resends your message if the first attempt fails (network service). If the recipient cannot be reached within the validity period, the message is deleted from the message center.

E-mail

Press , and select **Messag.** > **Options** > **Settings** > **E-mail** and from the following:

Mailboxes—Select a mailbox to change the following settings: **Connection settings**, **User settings**, **Retrieval settings**, and **Automatic retrieval**.

Mailbox in use—Select which mailbox you want to use for sending e-mail.

To create a new mailbox, select **Options** > **New mailbox** in the mailbox main view.

Connection settings

To edit the settings for the e-mail you receive, select **Incoming e-mail** and from the following:

User name—Enter your user name, given to you by your service provider.

Password—Enter your password. If you leave this field blank, you are prompted for the password when you try to connect to your remote mailbox.

Incoming mail serv.—Enter the IP address or host name of the mail server that receives your e-mail.

Access point in use—Select an Internet access point (IAP). See 'Connection', p. 95.

Mailbox name—Enter a name for the mailbox.

Mailbox type—Defines the e-mail protocol that your remote mailbox service provider recommends. The options are **POP3** and **IMAP4**. This setting can be selected only once and cannot be changed if you have saved or exited from the mailbox settings. If you use the POP3 protocol, e-mail messages are not updated automatically when you are online. To see the latest e-mail messages, you must disconnect and make a new connection to your mailbox.

Security (ports)—Select the security option used to secure the connection to the remote mailbox.

Port—Define a port for the connection.

APOP secure login (for POP3 only)—Use with the POP3 protocol to encrypt the sending of passwords to the remote e-mail server while connecting to the mailbox.

To edit the settings for the e-mail you send, select **Outgoing e-mail** and from the following:

My e-mail address—Enter the e-mail address given to you by your service provider. Replies to your messages are sent to this address.

Outgoing mail serv.—Enter the IP address or host name of the mail server that sends your e-mail. You may only be able to use the outgoing server of your network operator. Contact your service provider for more information.

Access point in use—Select an Internet access point (IAP). See 'Connection', p. 95.

The settings for **User name**, **Password**, **Security (ports)**, and **Port** are similar to the ones in **Incoming e-mail**.

User settings

My name—Enter your own name. Your name replaces your e-mail address in the recipient's device when the recipient's device supports this function.

Send message—Define how e-mail is sent from your device. Select **Immediately** for the device to connect to the mailbox when you select **Send message**. If you select **During next conn.**, e-mail is sent when the connection to the remote mailbox is available.

Send copy to self—Select whether you want to save a copy of the e-mail to your remote mailbox and to the address defined in **My e-mail address**.

Include signature—Select whether you want to attach a signature to your e-mail messages.

New e-mail alerts—Select whether you want to receive the new e-mail indications, a tone and a note, when new mail is received to the mailbox.

Retrieval settings

E-mail to retrieve—Define which parts of the e-mail are retrieved: **Headers only**, **Partially (kB)**, **Messages** (for IMAP4 only), or **Msgs. & attachs..**

Retrieval amount—Define how many new e-mail messages are retrieved to the mailbox.

IMAP4 folder path (for IMAP4 only)—Define the folder path for folders to be subscribed.

Folder subscriptions (for IMAP4 only)—Subscribe to other folders in the remote mailbox and retrieve content from those folders.

Automatic retrieval

E-mail notifications—Select whether you want to receive notifications when new e-mail is received in your remote mailbox.

E-mail notifications and automatic header retrieval cannot be active at the same time.

Header retrieval—Select whether you want the device to retrieve new e-mail automatically. You can define when, and how often, the messages are retrieved.

Retrieving e-mail messages automatically may increase your call costs due to the data traffic.

Web service messages

Press , and select **Messaging** > **Options** > **Settings** > **Service message**. Select whether you want to receive service messages. If you want to set the device to automatically activate the browser and start a network connection to retrieve content when you receive a service message, select **Download messages** > **Automatically**.

Cell broadcast

Check the available topics and related topic numbers with your service provider. Press , and select **Messaging** > **Options** > **Settings** > **Cell broadcast** and from the following:

Reception—Select whether you want to receive cell broadcast messages.

Language—Select the languages in which you want to receive messages: **All**, **Selected**, or **Other**.

Topic detection—Select whether the device automatically searches for new topic numbers, and saves the new numbers without a name to the topic list.

Other settings

Press , and select **Messaging** > **Options** > **Settings** > **Other** and from the following:

Save sent messages—Select whether you want to save a copy of the text messages, multimedia messages, or e-mail that you send to the **Sent** folder.

No. of saved msgs.—Define how many sent messages are saved to the **Sent** folder at a time. The default limit is 20 messages. When the limit is reached, the oldest message is deleted.

Memory in use—If a memory card is inserted in the device, select the memory where you want to save your messages: **Phone memory** or **Memory card**.



Contacts (Phonebook)

Press , and select **Contacts**. In **Contacts** you can add a personal ringing tone or a thumbnail image to a contact card. You can also create contact groups, which allow you to send text messages or e-mail to many recipients at the same time. You can add received contact information (business cards) to contacts. See 'Data and settings', p. 48. Contact information can only be sent to or received from compatible devices.

Save names and numbers

- 1 Select **Options** > **New contact**.
- 2 Fill in the fields that you want, and select **Done**.

To edit contact cards in **Contacts**, scroll to the contact card you want to edit, and select **Options** > **Edit**.

 **Tip!** To print contact cards on a compatible Basic Print Profile (BPP) equipped printer with Bluetooth connectivity (such as HP Deskjet 450 Mobile Printer or HP Photosmart 8150), select **Options** > **Print**.

To delete a contact card in **Contacts**, select a card, and press . To delete several contact cards at the same time, press  and  to mark the contacts, and press  to delete.

 **Tip!** To add and edit contact cards, use Nokia Contacts Editor available in Nokia PC Suite.

To attach a small thumbnail image to a contact card, open the contact card, and select **Options** > **Edit** > **Options** > **Add thumbnail**. The thumbnail image is shown when the contact calls.

 **Tip!** 1-touch dialing is a quick way to call frequently used numbers. You can assign 1-touch dialing keys to eight phone numbers. See '1-touch dial a phone number', p. 60.

 **Tip!** To send contact information, select the card you want to send. Select **Options** > **Send** > **Via text message**, **Via multimedia**, **Via Bluetooth**, or **Via infrared**. See 'Messaging', p. 43 and 'Send data using Bluetooth connectivity', p. 82.

To add a contact to a group, select **Options** > **Add to group**: (shown only if you have created a group). See 'Create contact groups', p. 58.

To view the amount of contacts, groups, and the available memory in **Contacts**, select **Options** > **Memory details**.

Primary numbers and addresses

You can assign primary numbers or addresses to a contact card. In this way if a contact has several numbers or addresses, you can easily call or send a message to the contact to a certain number or address. The primary number is also used in voice dialing.

- 1 In the address book, select a contact, and press .
- 2 Select **Options** > **Defaults**.
- 3 Select a default to which you want to add a number or an address, and select **Assign**.
- 4 Select a number or an address you want to set as a default.

The primary number or address is underlined in the contact card.

Copy contacts

To copy names and numbers from a SIM card to your device, press , and select **Contacts** > **Options** > **SIM contacts** > **SIM directory**. Select the names you want to copy and **Options** > **Copy to Contacts**.

To copy contacts to your SIM card, press , and select **Contacts**. Select the names you want to copy and **Options** > **Copy to SIM direct.**, or **Options** > **Copy** > **To SIM directory**. Only the contact card fields supported by your SIM card are copied.

 **Tip!** You can synchronize your contacts to a compatible PC with Nokia PC Suite.

SIM directory and other SIM services

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

Press , and select **Contacts** > **Options** > **SIM contacts** > **SIM directory** to see the names and numbers stored on the SIM card. In the SIM directory you can add, edit, or copy numbers to contacts, and you can make calls.

To view the list of fixed dialing numbers, select **Options** > **SIM contacts** > **Fixed dialing contacts**. This setting is only shown if supported by your SIM card.

To restrict calls from your device to selected phone numbers, select **Options** > **Activ. fixed dialing**. To add new numbers to the fixed dialing list, select **Options** > **New SIM contact**. You need the PIN2 code for these functions.

When you use **Fixed dialing**, packet data connections are not possible, except when sending text messages over a packet data connection. In this case, the message center number and the recipient's phone number must be included on the fixed dialing list.

When fixed dialing is activated, calls may be possible to the official emergency number programmed into your device.

Add ringing tones for contacts

When a contact or group member calls you, the device plays the chosen ringing tone (if the caller's telephone number is sent with the call and your device recognizes it).

- 1 Press  to open a contact card or go to the groups list, and select a contact group.
- 2 Select **Options** > **Ringing tone**. A list of ringing tones opens.
- 3 Select the ringing tone you want to use for the individual contact or the selected group.

You can also use a video clip as a ringing tone.

To remove the ringing tone, select **Default tone** from the list of ringing tones.

Create contact groups

- 1 In **Contacts**, press  to open the groups list.
- 2 Select **Options** > **New group**.
- 3 Write a name for the group or use the default name **Group %N**, and select **OK**.

- 4 Open the group, and select **Options** > **Add members**.
- 5 Scroll to a contact, and press  to mark it. To add multiple members at a time, repeat this action on all the contacts you want to add.
- 6 Select **OK** to add the contacts to the group.

To rename a group, select **Options** > **Rename**, enter the new name, and select **OK**.

Remove members from a group

- 1 In the groups list, open the group you want to modify.
 - 2 Scroll to the contact, and select **Options** > **Remove from group**.
 - 3 Select **Yes** to remove the contact from the group.
-  **Tip!** To check to which groups a contact belongs, scroll to the contact, and select **Options** > **Belongs to groups**.

Make calls

Voice calls

 **Tip!** To increase or decrease the volume during a call, press  or . If you have set the volume to **Mute**, select **Unmute** first, and then press  or .

- 1 In the standby mode, enter the phone number, including the area code. To remove a number, press . For international calls, press ***** twice for the + character (replaces the international access code), and enter the country code, area code (omit the leading zero if necessary), and phone number.
- 2 Press  to call the number.
- 3 Press  to end the call (or to cancel the call attempt).

Pressing  always ends a call, even if another application is active.

 **Tip!** If you want to close the sliding keypad during a call but not end the call, press  and then close the sliding keypad within few seconds.

To make a call from **Contacts**, press , and select **Contacts**. Scroll to the desired name, or enter the first letters of the name to the search field. Matching contacts are listed. To call, press . Select the call type **Voice call**.

You must copy the contacts from your SIM card to **Contacts** before you can make a call this way. See 'Copy contacts', p. 57.

To call your voice mailbox (network service), press and hold **1** in the standby mode. See also 'Call forwarding', p. 102.

 **Tip!** To change the phone number of your voice mailbox, press , and select **Tools > Voic. mail > Options > Change number**. Enter the number (obtained from your service provider), and select **OK**.

To call a recently dialed number in the standby mode, press . Scroll to the number, and press .

Make a conference call

- 1 Make a call to the first participant.
- 2 To make a call to another participant, select **Options > New call**. The first call is automatically put on hold.
- 3 When the new call is answered, to join the first participant in the conference call, select **Options > Conference**.

To add a new person to the call, repeat step 2, and select **Options > Conference > Add to conference**.

Your device supports conference calls between a maximum of six participants, including yourself. To have a private conversation with one of the participants, select **Options > Conference > Private**. Select a participant, and select **Private**. The conference call is put on hold on your device. The other participants can still continue the conference call. After you finish the private conversation, select **Options > Add to conference** to return to the conference call.

To drop a participant, select **Options > Conference > Drop participant**, scroll to the participant, and select **Drop**.

- 4 To end the active conference call, press .

1-touch dial a phone number

To activate 1-touch dialing, press , and select **Tools > Settings > Call > 1-touch dialing > On**.

To assign a phone number to one of the 1-touch dialing keys (**2 – 9**), press , and select **Tools > Spd. dial**. Scroll to the key to which you want to assign the phone number, and select **Options > Assign**. **1** is reserved for the voice mailbox.

To call in the standby mode, press the 1-touch dial key and .

Voice dialing

Your device supports enhanced voice commands. Enhanced voice commands are not dependent on the speaker's voice, so the user does not record voice tags in advance. Instead, the device creates a voice tag for the entries in contacts, and compares the spoken voice tag to it. The voice recognition in the device adapts to the main user's voice to recognize the voice commands better.

The voice tag for a contact is the name or nickname that is saved on the contact card. To listen to the synthesized voice tag, open a contact card, and select **Options > Play voice tag**.

Make a call with a voice tag



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

When you use voice dialing, the loudspeaker is in use. Hold the device at a short distance away when you say the voice tag.

- 1 To start voice dialing, in the standby mode, press and hold the right selection key. If you are using a compatible headset with the headset key, press and hold the headset key to start voice dialing.

- 2 A short tone is played, and **Speak now** is displayed. Say clearly the name or nickname that is saved on the contact card.
- 3 The device plays a synthesized voice tag for the recognized contact in the selected device language, and displays the name and number. After a timeout of 2.5 seconds, the device dials the number.
If the recognized contact was not correct, select **Next** to view a list of other matches, or **Quit** to cancel voice dialing.

If several numbers are saved under the name, the device selects the primary number, if it has been set. Otherwise the device selects the first available number of the following: **Mobile**, **Mobile (home)**, **Mobile (work)**, **Telephone**, **Tel. (home)**, and **Tel. (work)**.

Video calls

When you make a video call (network service), you can see a real-time, two-way video between you and the recipient of the call. The live video image, or video image captured by the camera in your device is shown to the video call recipient.

To be able to make a video call, you must have a USIM card and be in the coverage of a UMTS 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 mobile device or an ISDN client. Video calls cannot be made while another voice, video, or data call is active.

Icons:

-  You are not receiving video (the recipient is not sending video or the network is not transmitting it).
-  You have denied video sending from your device. To send a still image instead, see 'Call settings', p. 94.

 **Note:** Even if you denied video sending during a video call, the call is still be charged as a video call. Check the pricing with your network operator or service provider.

- 1 To start a video call, enter the phone number in the standby mode, or select **Contacts** and a contact.
- 2 Select **Options > Call > Video call**.

Starting a video call may take a while. **Waiting for video image** 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 text message instead.

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

To change between showing video or hearing only sound, select **Enable/Disable > Sending video, Sending audio or Sending audio & video**.

To zoom your own image, select **Zoom in** or **Zoom out**. The zoom indicator is shown on the top of the display.

To switch the places of the sent video images on the display, select **Change image order**.

To end the video call, press **⏏**.

Video sharing

Use **Video sharing** (network service) to send live video or a video clip from your mobile device to another compatible mobile device during a voice call. Simply invite a recipient to view the live video or a video clip you want to share. Sharing begins automatically when the recipient accepts the invitation.

The loudspeaker is active when you activate **Video sharing**. You can also use a compatible headset to continue your voice call while you share video. When a voice call is active, select **Options > Share video > Live** or **Clip**.

To end video sharing, select **Stop**. Video sharing also ends if the active voice call ends.

Video sharing requirements

Because **Video sharing** requires a UMTS connection, your ability to use **Video sharing** depends on the UMTS network availability. Contact your service provider for more information on the service and network availability, and fees associated with using this service.

To use **Video sharing** you must:

- Ensure that **Video sharing** is installed on your Nokia device.
- Ensure that your device is set up for person-to-person connections. See 'Settings', p.63.
- Ensure you have an active UMTS connection and are within UMTS network coverage. See 'Settings', p. 63. If you start the sharing session while you are within UMTS network coverage and a handover to GSM occurs, the sharing session is discontinued, but your voice call continues. Starting **Video sharing** is not

possible when you are not within UMTS network coverage (for example, in a GSM network).

- Ensure that both the sender and recipient are registered to the UMTS network. If you invite someone to a sharing session and the recipient's device is turned off, is not within UMTS network coverage, or does not have **Video sharing** installed or person-to-person connections set up, the recipient does not know that you are sending an invitation. However, you receive an error message that the recipient cannot accept the invitation.

Settings

Person-to-person connection settings

A person-to-person connection is also known as a Session Initiation Protocol (SIP) connection. The SIP profile settings must be configured in your device before you can use **Video sharing**. Setting up a SIP profile allows you to establish a live person-to-person connection to another compatible device. The SIP profile must also be established to receive a sharing session.

Ask your network operator or service provider for the SIP profile settings, and save them in your device. Your network operator or service provider may send you the settings over the air or give you a list of the needed parameters.

If you know a recipient's SIP address, you can enter it on the person's contact card. Open **Contacts** from your device main menu, and open the contact card (or start a new card for that person). Select **Options > Add detail > SIP or Share view** (the correct option depends on the network operator). Enter the SIP address in the format `username@domainname` (you can use an IP address instead of a domain name).

If you do not know a SIP address for the contact, you can also use the already saved phone number of the recipient including the country code, for example +358, to share video. If the phone number saved in **Contacts** does not include the country code, you can enter the number including the country code when sending the invitation.

UTMS connection settings

To set up your UMTS connection, do the following:

- Contact your service provider to establish an agreement for you to use the UMTS network.
- Ensure that your device UMTS access point connection settings are configured properly. For help, see 'Connection', p. 95.

Share live video and video clips

To receive a sharing session, the recipient must install **Video sharing** and configure the required settings on their compatible mobile device. You and the recipient must

both be registered to the service before you can start sharing.

- 1 During an active voice call, select **Options** > **Share video** > **Live** or **Clip**.
If you selected **Clip**, a list of video clips opens. Select a video clip you want to share and **Options** > **Send invitation**.
- 2 If the recipient has several SIP addresses in the contacts list, select the SIP address to which you want to send the invitation.
If the SIP address of the recipient is not available, enter a SIP address.
If you do not know a SIP address for the contact, enter the phone number of the recipient including the country code, if it is not already saved in the **Contacts**.
- 3 Sharing begins automatically when the recipient accepts the invitation.
- 4 Select **Pause** to pause the sharing session. Select **Continue** to resume sharing. If you share a video clip, to rewind and fast forward the clip, scroll left or right.
- 5 To end video sharing, select **Stop** or close the camera slider. Video sharing also ends if the active voice call ends.

Accept an invitation

When someone sends you a share invitation, an invitation message is displayed showing the sender's name or SIP

address. If your device is not set to **Silent**, it rings when you receive an invitation.

If someone sends you a share invitation and your device is turned off or you are not within UMTS network coverage, you will not know that you received an invitation.

When you receive an invitation, select from the following:

Accept—to activate the sharing session.

Reject—to decline the invitation. The sender receives a message that you rejected the invitation. You can also press the end key to decline the sharing session and disconnect the voice call.

To end video sharing, select **Stop**. Video sharing also ends if the active voice call ends.

Answer or decline a call

To answer the call, press .

To mute the ringing tone when a call comes in, select **Silence**.

If you do not want to answer a call, press . If you have activated the **Call forward** > **If busy** function to forward calls, declining an incoming call also forwards the call. See 'Call forwarding', p. 102.

When you decline an incoming call, you can send a text message to the caller informing why you cannot answer

the call. Select **Options > Send text message**. You can edit the text before sending it. To set up this option and write a standard text message, see 'Call settings', p. 94.

Answer or decline a video call

When a video call arrives,  is displayed.

 **Tip!** You can assign a ringing tone for video calls. Press  and select **Profiles**.

Press  to answer the video call. **Allow video image to be sent to caller?** appears on the display. To start sending live video image, select **Yes**.

If you do not activate the video call, video sending is not activated, and you only hear the sound of the caller. A grey screen is shown in place of the video image. To replace the grey screen with a still image captured by the camera in your device, see 'Call settings', **Image in video call**, p. 94.

To end the video call, press .

Call waiting (network service)

You can answer a call while you have another call in progress if you have activated **Call waiting** in **Tools > Settings > Call > Call waiting**.

 **Tip!** To change the device tones for different environments and events, for example, when you want your device to be silent, see 'Profiles—set tones', p. 90.

To answer the waiting call, press . The first call is put on hold.

To switch between the two calls, select **Swap**. To connect an incoming call or a call on hold with an active call and to disconnect yourself from the calls, select **Options > Transfer**. To end the active call, press . To end both calls, select **Options > End all calls**.

Options during a voice call

Many of the options that you can use during a voice call are network services. Select **Options** during a call for some of the following options: **Mute** or **Unmute**, **Answer**, **Decline**, **Swap**, **Hold** or **Unhold**, **Activate handset**, **Activate loudsp.**, or **Activate handsfree** (if a compatible headset with Bluetooth connectivity is attached), **End active call** or **End all calls**, **New call**, **Conference**, **Transfer**, and **Open active standby**. Select from the following:

Replace—to end an active call and replace it by answering the waiting call.

Send MMS (in UMTS networks only)—to send an image or a video in a multimedia message to the other participant of the call. You can edit the message and change the recipient before sending. Press  to send the file to a compatible device (network service).

Send touch tones—to send touch tone strings, for example, a password. Enter the touch tone string or search for it in **Contacts**. To enter a wait character (**w**) or a pause character (**p**), press ***** repeatedly. Select **OK** to send the tone.

 **Tip!** You can add touch tones to the **Phone number** or **Touch tones** fields in a contact card.

Options during a video call

Select **Options** during a video call for the following options: **Enable** or **Disable** (video, audio, or both), **Activate handset** (if a compatible headset with Bluetooth connectivity is attached) or **Activate handsfree** (when a compatible headset with Bluetooth connectivity is attached), **Activate loudsp.**, **End active call**, **Open active standby**, **Use main camera/Use secondary camera**, **Change image order**, **Zoom in/Zoom out**, and **Help**.

The available options may vary.



Log

To monitor the phone numbers of missed, received, and dialed voice calls, press , and select **My own > Log > Recent calls**. The device registers missed and received

calls only if the network supports these functions, the device is switched on, and within the network service area.

To clear all recent call lists, select **Options > Clear recent calls** in the recent calls main view. To clear one of the call logs, open the register you want to erase, and select **Options > Clear list**. To clear an individual event, open a register, scroll to the event, and press .

Call timers

To monitor the approximate duration of your incoming and outgoing calls, press , and select **My own > Log > Call timers**.

To set the display of the call timers while a call is active, select **My own > Log > Options > Settings > Show call duration > Yes** or **No**.



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

To clear call duration timers, select **Options > Clear timers**. For this you need the lock code. See 'Phone and SIM', p. 99.

Packet data

To check the amount of data sent and received during packet data connections, press , and select **My own >**

Log > **Packet data**. For example, you may be charged for your packet data connections by the amount of data sent and received.

Monitor all communication events

Icons in **Log**:

-  Incoming
-  Outgoing
-  Missed communication events

To monitor all voice calls, text messages, or data and wireless LAN connections registered by the device, press , select **My own** > **Log**, and scroll right to open the general log. For each communication event, you can see the sender or recipient name, phone number, name of the service provider, or access point. You can filter the general log to view just one type of event, and create new contact cards based on the log information.

 **Tip!** To view a list of sent messages, press , and select **Messaging** > **Sent**.

Subevents, such as a text message sent in more than one part and packet data connections, are logged as one communication event. Connections to your mailbox,



multimedia messaging center, or Web pages are shown as packet data connections.

To add an unknown phone number from **Log** to your contacts, select **Options** > **Add to contacts**.

To filter the log, select **Options** > **Filter** and a filter.

To erase the contents of the log, recent calls register, and messaging delivery reports permanently, select **Options** > **Clear log**. Select **Yes** to confirm. To remove a single event from the log, press .

To set the **Log duration**, select **Options** > **Settings** > **Log duration**. The log events remain in the device memory for a set number of days after which they are automatically erased to free memory. If you select **No log**, all the log contents, recent calls register, and messaging delivery reports are permanently deleted.

To view the details of a communication event, in the general log view scroll to an event, and press .

 **Tip!** In the details view you can copy a phone number to the clipboard, and paste it to a text message, for example. Select **Options** > **Copy Number**.

Packet data counter and connection timer: To view how much data, measured in kilobytes, is transferred and how long a certain packet data connection lasts, scroll to an incoming or outgoing event indicated by **Pack.**, and select **Options** > **View details**.



Services

Press , and select **Services** (network service).

Various service providers maintain pages specifically designed for mobile devices that you can view with the **Services** browser. These pages use the wireless markup language (WML), extensible hypertext markup language (XHTML), or hypertext markup language (HTML).

Check the availability of services, pricing, and fees with your network operator or service provider. Service providers will also give you instructions on how to use their services.

 **Shortcut:** To start a connection, press and hold  in the standby mode.

Access point

To access pages, you need service settings for the page that you want to use. You may receive the settings in a special text message from the network operator or service provider that offers the page. See 'Data and settings', p. 48. For more information, contact your network operator or service provider.

 **Tip!** Settings may be available on the Web site of a network operator or service provider.

Enter settings manually

- 1 Press , select **Tools** > **Settings** > **Connection** > **Access points**, and define the settings for an access point. Follow the instructions given to you by your service provider. See 'Connection', p. 95.
- 2 Press , and select **Services** > **Options** > **Bookmark manager** > **Add bookmark**. Write a name for the bookmark and the address of the page defined for the current access point.
- 3 To set the created access point as the default access point, select **Options** > **Settings** > **Access point**.

Bookmarks view

The bookmarks view opens when you open **Services**.

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

 indicates the starting page defined for the default access point.

Connection security

If the security indicator  is displayed during a connection, the data transmission between the device and the Internet gateway or server is encrypted.

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

Select **Options > Details > Security** to view details about the connection, encryption status, and information about server and user authentication.

Security certificates may be required for some services, such as banking services. For more information, contact your service provider. See also 'Certif. management', p. 101.

Browse

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

To download a page, select a bookmark, or enter the address in the field (.

On a browser page, new links appear underlined in blue and previously visited links in purple. Images that act as links have a blue border around them.

To open links and make selections, press .

 **Shortcut:** Use **#** to jump to the end of a page and ***** to the beginning of a page.

To go to the previous page while browsing, select **Back**. If **Back** is not available, select **Options > Navigation options > History** to view a chronological list of the pages you visited during a browsing session.

To retrieve the latest content from the server, select **Options > Navigation options > Reload**.

To save a bookmark, select **Options > Save as bookmark**.

 **Tip!** To access the bookmarks view while browsing, press and hold . To return to the browser view, select **Options > Back to page**.

To save a page while browsing, select **Options > Advanced options > Save page**. You can save pages to the device memory or compatible memory card (if inserted), and browse them when offline. To access the pages later, press  in the bookmarks view to open the **Saved pages** view.

To enter a new URL address, select **Options > Navigation options > Go to web address**.

To open a sublist of commands or actions for the currently open page, select **Options** > **Service options**.

You can download files that cannot be shown on the browser page, such as ringing tones, images, operator logos, themes, and video clips. To download an item, scroll to the link, and press .

When you start a download, a list of ongoing, paused, and completed downloads from the current browsing session is displayed. You can also view the list by selecting **Options** > **Tools** > **Downloads**. In the list, scroll to an item, and select **Options** to pause, resume, or cancel ongoing downloads, or open, save, or delete completed downloads.

Download and purchase items

You can download items such as ringing tones, images, operator logos, themes, and video clips. These items can be provided free, or you can purchase them. Downloaded items are handled by the respective applications in your device, for example, a downloaded photo can be saved in **Gallery**.

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

- 1 To download the item, scroll to the link, and press .

- 2 Select the appropriate option to purchase the item, for example, "Buy".
- 3 Carefully read all the information provided. To continue the download, select **Accept**. To cancel the download, select **Cancel**.

End a connection

To end the connection and view the browser page offline, select **Options** > **Advanced options** > **Disconnect**, or to end the connection and close the browser, select **Options** > **Exit**.

Empty the cache

The information or services you have accessed are stored in the cache memory of the device.

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** > **Advanced options** > **Clear cache**.

Settings

Select **Options** > **Settings** and from the following:

Access point—Change the default access point. See 'Connection', p. 95. Some or all access points may be preset for your device by your service provider or network operator, and you may not be able to change, create, edit, or remove them.

Load imgs. & sounds—Select whether you want to load images while browsing. If you select **No**, to load images later during browsing, select **Options > Show images**.

Font size—Select the text size.

Default encoding—If text characters are not shown correctly, you can select another encoding according to language.

Auto. bookmarks—Enable or disable automatic bookmark collecting. If you want to continue collecting automatic bookmarks but hide the folder from the bookmarks view, select **Hide folder**.

Screen size—Select what is shown when you are browsing: **Select. keys only** or **Full screen**.

Homepage—Define the home page.

Search page—Define a Web page that is downloaded when you select **Navigation options > Open search page** in the bookmarks view, or when browsing.

Volume—If you want the browser to play sounds embedded on Web pages, select a volume level.

Rendering—If you want the page layout shown as accurately as possible when in **Small screen** mode, select **By quality**. If you do not want external cascading style sheets to be downloaded, select **By speed**.

Cookies—Enable or disable the receiving and sending of cookies.

Java/ECMA script—Enable or disable the use of scripts.

Security warnings—Hide or show security notifications.

Confirm touch tones—Select whether you want to confirm before the device sends touch tones during a voice call. See also 'Options during a voice call', p. 65.



Calendar

Use **Calendar** to remind you of meetings and anniversaries, and to keep track of your tasks and other notes.

Create calendar entries

Shortcut: In the day, week, or month calendar view, press any key (**1** – **0**). An appointment entry opens, and the characters you enter are added to the **Subject** field. In the to-do view, a to-do note entry opens.

- 1 Press **6**, and select **Calendar > Options > New entry** and one of the following:
Meeting—to remind you of an appointment that has a specific date and time
Memo—to write a general entry for a day
Anniversary—to remind you of birthdays or special dates (entries are repeated every year)



To-do—to remind you of a task that needs doing by a specific date

- 2 Fill in the fields. To set an alarm, select **Alarm > On**, and enter the **Alarm time** and **Alarm date**.
To add a description for an appointment or a meeting, select **Options > Add description**.
- 3 To save the entry, select **Done**.

When the calendar alarms for a note, select **Silence** to turn off the calendar alarm tone. The reminder text stays on the screen. To end the calendar alarm, select **Stop**. To set the alarm to snooze, select **Snooze**.

Tip! You can synchronize your calendar with a compatible PC using Nokia PC Suite. When creating a calendar entry, set the desired **Synchronization** option.

Calendar views

Tip! Select **Options > Settings** to change the starting day of the week or the view that is shown when you open the calendar.

In the month view, dates that have calendar entries are marked with a small triangle in the right bottom corner. In the week view, memos and anniversaries are placed before

8 a.m. To switch between the month view, week view, day view, and to-do view, press ***** .

To go to a certain date, select **Options > Go to date**. To jump to today, press **#** .

To send a calendar note to a compatible device, select **Options > Send**.

To print calendar entries on a compatible Basic Print Profile (BPP) equipped printer with Bluetooth connectivity (such as HP Deskjet 450 Mobile Printer or HP Photosmart 8150), select **Options > Print**.

Manage your calendar entries

Deleting past entries in **Calendar** saves space in your device memory.

To delete more than one event at a time, go to the month view, and select **Options > Delete entry > Before date** or **All entries**.

To mark a task as completed, scroll to it in the to-do view, and select **Options > Mark as done**.

Calendar settings

To modify the **Calendar alarm tone**, **Default view**, **Week starts on**, and **Week view title**, select **Options > Settings**.

My own



Visual Radio

Press , and select **My own > Radio**. You can use the application as a traditional FM radio with automatic tuning and saved stations, or with parallel visual information related to the radio program on the display, if you tune to stations that offer Visual Radio service. The Visual Radio service uses packet data (network service). You can listen to the FM radio while using other applications.

If you do not have access to the Visual Radio service, the operators and radio stations in your area may not support Visual Radio. The Visual Radio service may not be available in all areas and countries.

You can normally make a call or answer an incoming call while listening to the radio. The radio is muted when there is an active call.

The radio selects the used frequency band based on the country information received from the network. If this information is not available, you may be asked to select the region you are located in, or you can select the region in the Visual Radio settings. See 'Settings', p. 75.

Listen to the radio

Note that the quality of the radio broadcast depends on the coverage of the radio station in that particular area.

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.

Press , and select **My own > Radio**. To start a station search, select  or . To change the frequency manually, select **Options > Manual tuning**.

If you have previously saved radio stations, select  or  to go to the next or previous saved station, or press the corresponding number key to select the memory location of a station.

To adjust the volume, press  or . To listen to the radio using the loudspeaker, select **Options > Activate loudspeaker**.



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.

To view available stations based on location, select **Options** > **Station directory** (network service).

To save the current tuned station to your station list, select **Options** > **Save station**. To open the list of your saved stations, select **Options** > **Stations**.

To return to the standby mode and leave the FM radio playing in the background, select **Options** > **Play in background**.

View visual content

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

To view available visual content for a tuned station, select  or **Options** > **Start visual service**. If the visual service ID has not been saved for the station, enter it, or select **Retrieve** to search for it in the station directory (network service).

When the connection to the visual service is established, the display shows the current visual content.

To adjust display settings for the visual content view, select **Options** > **Display settings**.

Saved stations

You can save up to 20 radio stations in the radio. To open your station list, select **Options** > **Stations**.

To listen to a saved station, select **Options** > **Station** > **Listen**. To view available visual content for a station with Visual Radio service, select **Options** > **Station** > **Start visual service**.

To change station details, select **Options** > **Station** > **Edit**.

Settings

Select **Options** > **Settings** and from the following:

Start-up tone—Select whether a tone is played when the application is started.

Auto-start service—Select **Yes** to have the Visual Radio service start automatically when you select a saved station that offers visual service.

Access point—Select the access point used for the data connection. You do not need an access point to use the application as an ordinary FM radio.

Current region—Select the region you are currently located in. This setting is displayed only if there was no network coverage when the application was started.



Go to—add shortcuts

Press , and select **My own** > **Go to**.

Default shortcuts are the following:  opens **Calendar**,  opens **Inbox**, and  opens **Notes**.



IM—instant messaging

Press , and select **My own** > **IM**.

Instant messaging (network service) allows you to converse with other people using instant messages and join discussion forums (IM groups) with specific topics. Various service providers maintain IM servers that you can log in to after you register to an IM service. Service providers may differ in their support of features.

Select **Conversations** to start or continue a conversation with an IM user; **IM contacts** to create, edit, or view the online status of your IM contacts; **IM groups** to start or continue a group conversation with multiple IM users; or **Record. chats** to view a previous instant messaging session that you saved.

Receive IM settings

You must save the settings to access the service that you want to use. You may receive the settings in a special text message from the network operator or service provider that offers the IM service. See 'Data and settings', p. 48.

You can also enter the settings manually. See 'Instant messaging server settings', p. 78.

Connect to an IM server

- 1 To connect to the IM server in use, open **IM**, and select **Options** > **Login**. To change the IM server in use and save new IM servers, see 'Instant messaging server settings', p. 78.
- 2 Enter your user ID and password, and press  to log in. You obtain the user ID and password for the IM server from your service provider.
- 3 To log out, select **Options** > **Logout**.

Modify your IM settings

Select **Options** > **Settings** > **IM settings** and from the following:

Use screen name (shown only if IM groups are supported by the server)—To enter a nickname, select **Yes**.

IM presence—To allow others to see if you are online, select **Active for all**.

Allow msg.s. from—To allow messages from all, select **All**.

Allow invitats. from—To allow invitations only from your IM contacts, select **IM contacts only**. IM invitations are sent by IM contacts who want you to join their groups.

Msg. scrolling speed—Select the speed at which new messages are displayed.

Sort IM contacts—Select how your IM contacts are sorted: **Alphabetically** or **By online status**.

Availabil. reloading—To select how to update information about whether your IM contacts are online or offline, select **Automatic** or **Manual**.

Offline contacts—Select whether IM contacts with an offline status are shown in the IM contacts list.

Own message color—Select the color of the instant messages you send.

Received msg color—Select the color of the instant messages you receive.

IM alert tone—Change the tone played when you receive a new instant message.

Search for IM groups and users

To search for groups, in the **IM groups** view, select **Options > Search**. You can search by **Group name**, **Topic**, and **Members** (user ID).

To search for users, in the **IM contacts** view, select **Options > New IM contact > Search from server**. You can search by **User's name**, **User ID**, **Phone number**, and **E-mail address**.

Join IM groups

The **IM groups** view shows a list of the IM groups that you have saved or are currently joined to.

To join a saved IM group, press **⊙**.

To leave the IM group, select **Options > Leave IM group**.

Instant messaging

After you join an IM group, you can view the messages that are exchanged there, and send your own messages.

To send a message, write the message in the message editor field, and press **⊙**.

To send a private message to a participant, select **Options > Send private msg..**

To reply to a private message sent to you, select the message and **Options > Reply**.

To invite IM contacts who are online to join the IM group, select **Options > Send invitation**.

To prevent receiving messages from certain participants, select **Options > Blocking options**.

Record chats

To record the messages that are exchanged during a conversation or while you are joined in a IM group, select **Options > Record chat**. To stop recording, select

Options > **Stop recording**. To view the recorded chats, in the main view, select **Record. chats**.

View and start conversations

The **Conversations** view shows a list of the individual conversation participants that you have an ongoing conversation with. Ongoing conversations are automatically closed when you exit **IM**.

To view a conversation, scroll to a participant, and press .

To continue the conversation, write your message, and press .

To return to the conversations list without closing the conversation, select **Back**. To close the conversation, select **Options** > **End conversation**.

To start a new conversation, select **Options** > **New conversation**.

To save a conversation participant to your IM contacts, select **Options** > **Add to IM contacts**.

To send automatic replies to incoming messages, select **Options** > **Set auto reply on**. You can still receive messages.

IM contacts

In the **IM contacts** view, you can retrieve instant messaging contact lists from the server, or add a new instant messaging contact to a contact list. When you log in to the server, the previously used instant messaging contact list is retrieved from the server automatically.

Instant messaging server settings

Select **Options** > **Settings** > **Server settings**. You may receive the settings in a special text message from the network operator or service provider that offers the instant messaging service. You obtain the user ID and password from your service provider when you register to the service. If you do not know your user ID or password, contact your service provider.

Servers—View a list of all defined IM servers.

Default server—Change the IM server to which you want to connect.

IM login type—To log in automatically when you start **IM**, select **On app. start-up**.

To add a new server to your list of IM servers, select **Servers** > **Options** > **New server**. Enter the following settings:

Server name—the name for the instant messaging server

Access point in use—the access point you want to use for the server

Web address—the URL address of the IM server

User ID—your user ID

Password—your login password

Games

Press , and select **My own** and a game. For instructions on how to play the game, select **Options > Help**.

FCC Draft

Connectivity



Bluetooth connectivity

You can connect wirelessly to other compatible devices with wireless Bluetooth technology. Compatible devices may include mobile phones, computers, and enhancements such as headsets and car kits. You can use Bluetooth connectivity to send images, video clips, music and sound clips, and notes; connect wirelessly to your compatible PC (for example, to transfer files); connect to a compatible printer to print images with [Image print](#). See 'Image print', p. 38.

Since devices with Bluetooth technology communicate using radio waves, your device and the other device do not need to be in direct line-of-sight. The two devices only need to be within 10 meters (33 feet) of each other, but the connection may be subject to interference from obstructions such as walls or from other electronic devices.

This device is compliant with Bluetooth Specification 1.2 supporting the following profiles: Basic Printing Profile, Generic Access Profile, Serial Port Profile, Dial-up Networking Profile, Headset Profile, Handsfree Profile, Generic Object Exchange Profile, Object Push Profile, File

Transfer Profile, Basic Imaging Profile, SIM Access profile, and Human Interface Device Profile. To ensure interoperability between other devices supporting Bluetooth technology, use Nokia approved enhancements for this model. Check with the manufacturers of other devices to determine their compatibility with this device.



Glossary: A profile corresponds to a service or a function, and defines how different devices connect. For example, the Handsfree Profile is used between the handsfree device and the phone. For devices to be compatible, they must support the same profiles.

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

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

When the device is locked, you cannot use Bluetooth connectivity. See 'Security', p. 99 for more information on locking the device.

Settings

Press , and select **Connect.** > **Bluetooth.** When you open the application for the first time, you are asked to define a name for your device. After you set Bluetooth connectivity on and change **My phone's visibility** to **Shown to all**, your device and this name can be seen by other users with devices using Bluetooth technology.

Select from the following:

Bluetooth—Select **On** or **Off**. To connect wirelessly to another compatible device, first set Bluetooth connectivity **On**, then establish a connection.

My phone's visibility—To allow your device to be found by other devices with Bluetooth technology, select **Shown to all**. To hide it from other devices, select **Hidden**.

My phone's name—Edit the name of your device.

Remote SIM mode—To enable another device, such as a compatible car kit enhancement, to use the SIM card in your device to connect to the network, select **On**.

Remote SIM mode

To use the remote SIM mode with a compatible car kit enhancement, set Bluetooth connectivity on, and enable the use of the remote SIM mode with your device. Before the mode can be activated, the two devices must be paired and the pairing initiated from the other device. When

pairing, use a 16-digit passcode, and set the other device as authorized. See 'Pair devices', p. 82. Activate the remote SIM mode from the other device.

When remote SIM mode is on in your Nokia N80, **Remote SIM** is displayed in the standby mode. The connection to the wireless network is turned off, as indicated by  in the signal strength indicator area, and you cannot use SIM card services or features requiring cellular network coverage. However, a wireless LAN connection remains active during the remote SIM mode.

When the wireless device is in the remote SIM mode, you can only use a compatible connected enhancement, such as a car kit, to make or receive calls. Your wireless device will not make any calls, except to the emergency numbers programmed into your device, while in this mode. To make calls from your device, you must first leave the remote SIM mode. If the device has been locked, enter the code to unlock it first.

To leave the remote SIM mode, press the power key, and select **Exit rem. SIM mode**.

Security tips

When you are not using Bluetooth connectivity, select **Bluetooth** > **Off** or **My phone's visibility** > **Hidden**.

Do not pair with an unknown device.

Send data using Bluetooth connectivity

Several Bluetooth connections can be active at a time. For example, if you are connected to a headset, you can also transfer files to another compatible device at the same time.

Bluetooth connectivity indicators

- When  is shown in the standby mode, Bluetooth connectivity is on.
- When  is blinking, your device is trying to connect with another device.
- When  is shown continuously, data is being transmitted using Bluetooth connectivity.

 **Tip!** To send text using Bluetooth connectivity, open **Notes**, write the text, and select **Options > Send > Via Bluetooth**.

- 1 Open the application where the item you want to send is stored. For example, to send an image to another compatible device, open **Gallery**.
- 2 Select the item and **Options > Send > Via Bluetooth**. Devices with Bluetooth technology within range start to appear on the display.

Device icons:  computer,  phone,  audio or video device, and  other device.

To interrupt the search, select **Stop**.

- 3 Select the device with which you want to connect.
- 4 If the other device requires pairing before data can be transmitted, a tone sounds, and you are asked to enter a passcode. See 'Pair devices', p. 82.
- 5 When the connection has been established, **Sending data** is shown.

The **Send** folder in **Message** does not store messages sent using Bluetooth connectivity.

 **Tip!** When searching for devices, some devices may show only the unique address (device address). To find the unique address of your device, enter the code ***#2820#** in the standby mode.

Pair devices

To open the paired devices view () in the **Bluetooth** application main view, press .

Before pairing, create your own passcode (1–16 digits), and agree with the owner of the other device to use the same code. Devices that do not have a user interface have a factory-set passcode. The passcode is used only once.

To pair with a device, select **Options > New paired device**. Devices with wireless Bluetooth technology within range start to appear on the display. Select the device, and enter the passcode. The same passcode must be entered on the other device as well. After pairing, the device is saved to the paired devices view.

Paired devices are indicated by  in the device search.

To set a device as authorized or unauthorized, scroll to a device, and select from the following options:

Set as authorized—Connections between your device and this device can be made without your knowledge. No separate acceptance or authorization is needed. Use this status for your own devices, such as your compatible headset or PC, or devices that belong to someone you trust.  indicates authorized devices in the paired devices view.

Set as unauthorized—Connection requests from this device must be accepted separately every time.

To cancel a pairing, scroll to the device, and select **Options > Delete**. If you want to cancel all pairings, select **Options > Delete all**.

 **Tip!** If you are currently connected to a device and delete the pairing with that device, pairing is removed immediately, and the connection is switched off.

Receive data using Bluetooth connectivity

When you receive data through Bluetooth connectivity, a tone sounds, and you are asked if you want to accept the message. If you accept,  is shown, and the item is placed in the **Inbox** folder in **Message**.. Messages received

through Bluetooth connectivity are indicated by . See 'Inbox—receive messages', p. 47.

Switch off Bluetooth connectivity

To switch off Bluetooth connectivity, select **Bluetooth > Off**.



Infrared connection

With infrared, you can transfer data such as business cards, calendar notes, and media files with a compatible device.

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

Send and receive data using infrared

- 1 Make sure that the infrared ports of the sending and receiving devices are pointing at each other, and that there are no obstructions between the devices. The preferable distance between the two devices is up to 1 meter (3 feet).
- 2 The user of the receiving device activates the infrared port.

To activate the infrared port of your device to receive data through infrared, press , and select **Connect. > Infrared.**

- 3 The user of the sending device selects the desired infrared function to start the data transfer.
To send data through infrared, locate the desired file in an application or the file manager, and select **Options > Send > Via infrared.**

If data transfer is not started within 1 minute after the activation of the infrared port, the connection is cancelled and must be started again.

All items received through infrared are placed in the **Inbox** folder in **Messaging**. New infrared messages are indicated by .

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

When  is shown continuously, the infrared connection is active, and your device is ready to send and receive data using its infrared port.



Data cable

Press , and select **Connect. > Data cbl..** In **Data cable mode**, select what the USB data cable connection is used for: **PC Suite** or **Data transfer**. To have the device ask the

purpose of the connection each time the cable is connected, select **Ask on connection**.

PC connections

You can use your device with a variety of PC connectivity and data communications applications. With Nokia PC Suite you can, for example, transfer images between your device and a compatible PC.

Always create the connection from the PC to synchronize with your device.

Your device as a modem

You can use your device as a modem to send and receive e-mail, or to connect to the Internet with a compatible PC by using Bluetooth connectivity, infrared, or a USB data cable (network service). Detailed installation instructions can be found in the user guide for Nokia PC Suite.

 **Tip!** When using Nokia PC Suite for the first time, to connect your device to a compatible PC and to use Nokia PC Suite, use the Get Connected wizard available in Nokia PC Suite.



Connection manager

Press , and select **Connect.** > **Conn mgr.** To view the status of data connections or end connections in GSM and UMTS network and wireless LAN, select **Act. data conn..** To search for wireless LANs available within range, select **Availab. WLAN.**

Data connections

In the active connections view, you can see the open data connections: data calls () , packet data connections () or ) , and wireless LAN connections () .

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

To end a connection, select **Options** > **Disconnect.** To close all open connections, select **Options** > **Disconnect all.**

To view the details of a connection, select **Options** > **Details.** The details shown depend on the connection type.

Wireless LAN

The available wireless LAN view shows a list of wireless LANs within range, their network mode (**Infrastructure** or **Ad-hoc**), and signal strength indicator.  is shown for

networks with encryption, and  if your device has an active connection in the network.

To view the details of a network, select **Options** > **Details.**

To create an Internet access point in a network, select **Options** > **Define access point.**



Synchronization

Press , and select **Connect.** > **Sync.** **Sync** enables you to synchronize your notes, calendar, contacts, or e-mail with various compatible calendar and address book applications on a compatible computer or on the Internet. You can also create or edit synchronization settings.

The synchronization application uses SyncML technology for synchronization. For information on SyncML compatibility, contact the supplier of the application with which you want to synchronize your device data.

You may receive synchronization settings in a special text message. See 'Data and settings', p. 48.

Synchronize data

In the **Sync** main view, you can see the different synchronization profiles.

- 1 Select a synchronization profile and **Options > Synchronize**. The status of the synchronization is shown on the display.
To cancel synchronization before it finishes, select **Cancel**.
- 2 You are notified when the synchronization is complete. Select **Yes** to view the log file showing the synchronization status and how many entries have been added, updated, deleted, or discarded (not synchronized) in your device or on the server.



Device manager

Press **fg**, and select **Connect. > Dev. mgr.** You may receive server profiles and different configuration settings from your network operator, service provider, or company information management department. These configuration settings may include access point settings for data connections and other settings used by different applications in your device.

To connect to a server and receive configuration settings for your device, scroll to a profile, and select **Options > Start configuration**.

Server profile settings

Contact your service provider for the correct settings.

Server name—Enter a name for the configuration server.

Server ID—Enter the unique ID to identify the configuration server.

Server password—Enter a password to identify your device to the server.

Access point—Select an access point to be used when connecting to the server.

Host address—Enter the URL address of the server.

Port—Enter the port number of the server.

User name and **Password**—Enter your user name and password.

Allow configuration—To receive configuration settings from the server, select **Yes**.

Auto-accept all reqs.—If you want your device to ask for confirmation before accepting a configuration from the server, select **No**.

Network authentic.—Select if network authentication is used.

Office



Calculator

To add, subtract, multiply, divide, and calculate square roots and percentages, press , and select **Office** > **Calculator**.



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



Converter

To convert measures from one unit to another, press , and select **Office** > **Converter**.

Converter has limited accuracy, and rounding errors may occur.

- 1 In the **Type** field, select the measure you want to use.
- 2 In first **Unit** field, select the unit from which you want to convert. In the next **Unit** field, select the unit to which you want to convert.
- 3 In the first **Amount** field, enter the value you want to convert. The other **Amount** field changes automatically to show the converted value.

Set base currency and exchange rates

Select **Type** > **Currency** > **Options** > **Currency rates**.

Before you can make currency conversions, you must select a base currency and add exchange rates. The rate of the base currency is always 1.



Note: When you change base currency, you must enter new exchange rates because all previously set exchange rates are cleared.



Notes

To write notes, press , and select **Office** > **Notes**. You can send notes to compatible devices, and save plain text files (.txt format) that you receive to **Notes**.

To print a note on a compatible Basic Print Profile (BPP) equipped printer with Bluetooth connectivity (such as HP Deskjet 450 Mobile Printer or HP Photosmart 8150), select **Options** > **Print**.



Recorder

To record voice memos, press , and select **Office > Recorder**. To record a telephone conversation, open **Recorder** during a voice call. Both parties hear a tone every 5 seconds during recording.



Quickoffice

To use the Quickoffice applications, press , and select **Office > Quickoffice**. A list of files in the .doc, .xls, .ppt, and .txt file formats saved in the device opens.

To open a file in its respective application, press . To sort files, select **Options > Sort files**.

To open **Quickword**, **Quicksheet**, or **Quickpoint**, press  to reach the desired view.

Quickword

With **Quickword**, you can view native Microsoft Word documents on the display of your device. **Quickword** supports colors, bold, italics, and underline.

Quickword supports the viewing of documents saved in .doc format in Microsoft Word 97, 2000, and XP, and Palm

eBooks in .doc format. Not all variations or features of the mentioned file formats are supported.

See also 'More information', p. 89.

View Word documents

To move in the document, use the scroll key.

To search the document for text, select **Options > Search**.

You can also select **Options** and from the following:

Go to—to move to the start, end, or selected position within the document

Zoom—to zoom in or out

Start Autoscroll—to start automatic scrolling through the document. To stop scrolling, press .

Quicksheet

With **Quicksheet**, you can read Microsoft Excel files on the display of your device.

Quicksheet supports the viewing of spreadsheet files saved in .xls format in Microsoft Excel 97, 2000, 2003, and XP. Not all variations or features of the mentioned file formats are supported.

See also 'More information', p. 89.

View spreadsheets

To move around in the spreadsheet, use the scroll key.

To switch between worksheets, select **Options** > **Pan**.

To search the spreadsheet for a text within a value or formula, select **Options** > **Find**.

To change how the spreadsheet is displayed, select **Options** and from the following:

Zoom—to zoom in or out

Freeze panes—to keep the highlighted row, column, or both visible while you move in the spreadsheet

Resize—to adjust the size of columns or rows

Quickpoint

With **Quickpoint**, you can view Microsoft PowerPoint presentations on the display of your device.

Quickpoint supports the viewing of presentations created in .ppt format in Microsoft PowerPoint 97, 2000, and XP. Not all variations or features of the mentioned file formats are supported.

See also 'More information', p. 89.

View presentations

To move between the slide, outline, and the notes view, press  or .

To move to the next or previous slide in the presentation, press  or .

To view the presentation in full screen, select **Options** > **Full screen**.

To expand items in the presentation outline in the outline view, select **Options** > **Expand entry**.

More information

If you experience problems with **Quickword**, **Quicksheet**, or **Quickpoint**, visit www.quickoffice.com for more information. Support is also available by sending an e-mail to supportS60@quickoffice.com.

Customize your device

The open applications, and folders that have applications open, are indicated by a small icon (●) in the main menu.

- To use the standby display for fast access to your most frequently used applications, see 'Active standby mode', p. 92.
- To change the standby mode background image or what is shown in the screen saver, see 'Change the look of your device', p. 91.
- To customize the ringing tones, see 'Profiles—set tones', p. 90 and 'Add ringing tones for contacts', p. 58.
- To change the shortcuts assigned for the different presses of the scroll key and left and right selection keys in the standby mode, see 'Standby mode', p. 94.
- To change the clock shown in the standby mode, press , and select **Clock** > **Options** > **Settings** > **Clock type** > **Analog** or **Digital**.



- To change the welcome note to an image or animation, press , and select **Tools** > **Settings** > **Phone** > **General** > **Welcome note / logo**.
- To change the main menu view, in the main menu, select **Options** > **Change view** > **Grid** or **List**.
- To rearrange the main menu, in the main menu, select **Options** > **Move**, **Move to folder**, or **New folder**. You can move less used applications into folders, and place applications that you use more often into the main menu.



Profiles—set tones

To set and customize the ringing tones, message alert tones, and other tones for different events, environments, or caller groups, press , and select **Tools** > **Profiles**.

To change the profile, press  in the standby mode. Scroll to the profile you want to activate, and select **OK**.

To modify a profile, press , and select **Tools** > **Profiles**. Scroll to the profile, and select **Options** > **Customize**. Scroll to the setting you want to change, and press  to open the choices. Tones stored on the memory card are indicated with . You can scroll through the tone list

and listen to each one before you make your selection. To stop the sound, press any key.

When you choose a tone, **Tone downloads** (network service) opens a list of bookmarks. You can select a bookmark and start connection to a Web page to download tones.

If you want the caller's name to be said when your device rings, select **Options > Customize**, and set **Say caller's name** to **On**. The caller's name must be saved in **Contacts**.

To create a new profile, select **Options > Create new**.

Offline profile

The **Offline** profile lets you use the device without connecting to the wireless network. When you activate the **Offline** profile, the connection to the wireless network is turned off, as indicated by  in the signal strength indicator area. All wireless RF signals to and from the device are prevented. If you try to send messages, they are placed in the outbox to be sent later.



Warning: In the offline profile you cannot make (or receive) any calls, except make calls to certain emergency numbers, 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.

When you have activated the **Offline** profile, you can still use the wireless LAN (if available), for example, to read your e-mail or browse on the Internet. Remember to comply with any applicable safety requirements when establishing and using a wireless LAN connection. See 'Wireless LAN', p. 14.

To leave the **Offline** profile, press the power key, and select another profile. The device re-enables wireless transmissions (providing there is sufficient signal strength). If a Bluetooth connection is activated before entering the **Offline** profile, it will be deactivated. A Bluetooth connection is automatically reactivated after leaving the **Offline** profile. See 'Settings', p. 81.



Change the look of your device

To change the look of the display, such as the wallpaper and icons, press , and select **Tools > Themes**. The active theme is indicated by . In **Themes** you can group together elements from other themes or select images from the **Gallery** to customize themes further. The themes on the memory card (if inserted) are indicated by . The themes on the memory card are not available if the memory card is not inserted in the device. If you want to use the themes saved in the memory card without the memory card, save the themes in the device memory first.

To open a browser connection and download more themes, select **Theme downloads**.

To activate a theme, scroll to it, and select **Options > Apply**. To preview a theme before activating it, select **Options > Preview**.

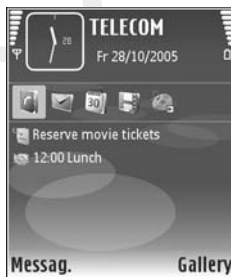
To edit themes, scroll to a theme, and select **Options > Edit** to change the **Wallpaper** and **Power saver** settings.

To restore the selected theme to its original settings, select **Options > Restore orig. theme** when you edit a theme.

Active standby mode

Use your standby display for fast access to your most frequently used applications. By default, the active standby mode is on.

Press **⌘**, select **Tools > Settings > Phone > Standby mode > Active standby**, and press **⬤** to switch the active standby on or off.



The active standby display is shown with default applications across the top of the screen, and calendar, to-do, and player events listed below.

Scroll to an application or event, and press **⬤**.

The standard scroll key shortcuts available in the standby mode cannot be used when the active standby mode is on.

To change the default applications shortcuts, press **⌘**, select **Tools > Settings > Phone > Standby mode > Active standby apps.**, and press **⬤**.

Some shortcuts may be fixed, and you are not able to change them.

Tools

Media key

To open the shortcut assigned to the multimedia key, press and hold . To open a list of multimedia applications, press . To open the desired application, use the scroll key. To exit the list without selecting an application, press .

To change the shortcuts, press , and scroll down. To change the default shortcut, select **Multimedia key**. To change the applications that are shown when you press , select **Top**, **Left**, **Middle**, and **Right** and the application.

Some shortcuts may be fixed, and you are not able to change them.



Settings

To change settings, press , and select **Tools > Settings**. To open a settings group, press . Scroll to a setting you want to change, and press .

Some settings may be preset for the device by your network operator or service provider, and you may not be able to change them.



Phone

General

Phone language—Changing the language of the display texts in your device also affects the format used for date and time and the separators used, for example, in calculations. **Automatic** selects the language according to the information on your SIM card. After you change the display text language, the device restarts.

Changing the settings for **Phone language** or **Writing language** affects every application in your device, and the change remains effective until you change these settings again.

Writing language—Changing the language affects the characters and special characters available when writing text and the predictive text dictionary used.

Predictive text—Set the predictive text input **On** or **Off** for all editors in the device. The predictive text dictionary is not available for all languages.

Welcome note / logo—The welcome note or logo is displayed briefly each time you switch on the device. Select **Default** to use the default image, **Text** to write a welcome note, or **Image** to select an image from **Gallery**.

Orig. phone settings—You can reset some of the settings to their original values. To do this, you need the lock code. See 'Security', 'Phone and SIM', p. 100. After resetting, the device may take a longer time to power on. Documents and files are unaffected.

Standby mode

Active standby—Use shortcuts to applications in the standby mode. See 'Active standby mode', p. 92.

Left selection key—Assign a shortcut to the left selection key (⌵) in the standby mode.

Right selection key—Assign a shortcut to the right selection key (⌶) in the standby mode.

Active standby apps.—Select the application shortcuts you want to appear in the active standby. This setting is only available if **Active standby** is on.

You can also assign keypad shortcuts for the different presses of the scroll key. The scroll key shortcuts are not available if the active standby is on.

Operator logo—This setting is only available if you have received and saved an operator logo. Select **Off** if you do not want the logo to be shown.

Display

Brightness—Adjust the basic brightness level of the display to lighter or darker. However, in extreme light conditions, the brightness of the display is automatically adjusted.

Power saver time-out—Select the time-out period after which the power saver is activated.

Light time-out—Select a time-out after which the backlight of the display is switched off.

Sleep mode—Select whether the display is switched off to save battery power 20 minutes after the power saver is activated. When the display is switched off, a LED blinks to indicate that the device is powered on.



Call settings

Send my caller ID—You can set your phone number to be displayed to (**Yes**) or hidden from (**No**) the person to whom you are calling, or the value may be set by your network operator or service provider when you make a subscription (**Set by network**) (network service).

Call waiting—If you have activated call waiting (network service), the network notifies you of a new incoming call while you have a call in progress. Set the function on (Activate) or off (Cancel), or check whether the function is activated (Check status).

Reject call with SMS—Select **Yes** to send a text message to a caller informing why you could not answer the call. See 'Answer or decline a call', p. 64.

Message text—Write a text to be sent in a text message when you decline a call.

Image in video call—If video is not sent during a video call, you can select a still image to be displayed instead.

Automatic redial—Select **On**, and your device makes a maximum of 10 attempts to connect the call after an unsuccessful call attempt. To stop automatic redialing, press .

Summary after call—Activate this setting if you want the device to briefly display the approximate duration of the last call.

1-touch dialing—Select **On**, and the numbers assigned to the 1-touch dialing keys (**2** - **9**) can be dialed by pressing and holding the key. See also '1-touch dial a phone number', p. 60.

Anykey answer—Select **On**, and you can answer an incoming call by briefly pressing any keypad key, except , , , and .

Line in use—This setting (network service) is shown only if the SIM card supports two subscriber numbers, that is, two phone lines. Select which phone line you want to use for making calls and sending text messages. Calls on both lines can be answered irrespective of the selected line. If you select **Line 2** and have not subscribed to this network service, you will not be able to make calls. When line 2 is selected, **2** is shown in the standby mode.

 **Tip!** To switch between the phone lines, press and hold **#** in the standby mode.

Line change—To prevent line selection (network service), select **Disable** if supported by your SIM card. To change this setting, you need the PIN2 code.



Connection

Data connections and access points

Your device supports packet data connections (network service), such as GPRS in the GSM network. When you use your device in GSM and UMTS networks, multiple data connections can be active at the same time, and access

points can share a data connection. In the UMTS network, data connections remain active during voice calls.

You can also use a wireless LAN data connection. See 'Wireless LAN', p. 14. Only one connection in one wireless LAN can be active at a time.

To establish a data connection, an access point is required. You can define different kinds of access points, such as:

- MMS access point to send and receive multimedia messages
- Access point for the Web application to view WML or XHTML pages
- Internet access point (IAP) to send and receive e-mail and connect to the Internet

Check the type of access point you need with your service provider for the service you want to access. For availability and subscription to packet data connection services, contact your network operator or service provider.

Access points

You may receive access point settings in a message from a service provider. See 'Data and settings', p. 48. Some or all access points may be preset for your device by your service provider or network operator, and you may not be able to change, create, edit, or remove them.  indicates a protected access point.

 indicates a packet data access point, and  a wireless LAN access point.

 **Tip!** To create an Internet access point in a wireless LAN, press , and select **Connect.** > **Conn mgr** > **Availab. WLAN** > **Options** > **Define access point**.

To create a new access point, select **Options** > **New access point**. To edit the settings of an access point, select **Options** > **Edit**. Follow the instructions from your service provider.

Connection name—Enter a descriptive name for the connection.

Data bearer—Select the data connection type.

Depending on the data connection you select, only certain setting fields are available. Fill in all fields marked with **Must be defined** or with a red asterisk. Other fields can be left empty, unless you have been instructed otherwise by your service provider.

To be able to use a data connection, the network service provider must support this feature, and if necessary, activate it for your SIM card.

Packet data

Follow the instructions from your service provider.

Access point name—You obtain the access point name from your network operator or service provider.

User name—The user name may be needed to make a data connection, and is usually provided by the service provider.

Prompt password—If you must enter the password every time you log in to a server, or if you do not want to save your password in the device, select **Yes**.

Password—A password may be needed to make a data connection, and is usually provided by the service provider.

Authentication—Select **Normal** or **Secure**.

Homepage—Depending on the access point you are setting up, enter the Web address or the address of the multimedia messaging center.

Select **Options > Advanced settings** to change the following settings:

Network type—Select the Internet protocol type to use: **IPv4 settings** or **IPv6 settings**. The other settings depend on the selected network type.

Phone IP address (for IPv4 only)—Enter the IP address of your device.

DNS address—In **Primary name serv.:**, enter the IP address of the primary DNS server. In **Second. name server:**, enter the IP address of the secondary DNS server. Contact your Internet service provider to obtain these addresses.

Proxy serv. address—Define the address for the proxy server.

Proxy port number—Enter the proxy port number.

Wireless LAN

Follow the instructions from your service provider.

WLAN netw. name—Select **Enter manually** or **Search for netw.**. If you select an existing network, **WLAN netw. mode** and **WLAN security mode** are determined by the settings of its access point device.

Hide WLAN network—Select whether the network name is shown.

WLAN netw. mode—Select **Ad-hoc** to create an ad hoc network and to allow devices to send and receive data directly; a wireless LAN access point device is not needed.

WLAN security mode—Select the encryption used: **WEP**, **802.1x** (not for ad hoc networks), or **WPA/WPA2**. If you select **Open network**, no encryption is used. The WEP, 802.1x, and WPA functions can be used only if the network supports them.

WLAN security sett.—Enter the settings for the selected security mode:

Security settings for **WEP**:

Wep key in use—Select the WEP key number. You can create up to four WEP keys. The same settings must be entered on the wireless LAN access point device.

Authentication type—Select **Open** or **Shared** for the authentication type between your device and the wireless LAN access point device.

WEP key settings—Enter **WEP encryption** (length of the key), **WEP key format** (**ASCII** or **Hexadecimal**), and **WEP key** (the WEP key data in the selected format).

Security settings for **802.1x** and **WPA/WPA2**:

WPA mode—Select the means of authentication: **EAP** to use an extensible authentication protocol (EAP) plug-in, or **Pre-shared key** to use a password. Complete the appropriate settings:

EAP plug-in settings (only for **EAP**)—Enter the settings as your service provider instructs.

Pre-shared key (only for **Pre-shared key**)—Enter a password. The same password must be entered on the wireless LAN access point device.

TKIP encryption (only for **WPA/WPA2**)—Select whether Temporal Key Integrity Protocol (TKIP) is used.

Homepage—Define a home page.

Select **Options** > **Advanced settings** and from the following:

IPv4 settings: **Phone IP address** (the IP address of your device), **Subnet mask** (the subnet IP address), **Default gateway** (the gateway), and **DNS address**—enter the IP

addresses of the primary and secondary DNS server. Contact your Internet service provider for these addresses.

IPv6 settings > **DNS address**—Select **Automatic**, **Well-known**, or **User defined**.

Ad-hoc channel (only for **Ad-hoc**)—To enter a channel number (1–11) manually, select **User defined**.

Proxy serv. address—Enter the address for the proxy server.

Proxy port number—Enter the proxy port number.

Packet data

The packet data settings affect all access points using a packet data connection.

Packet data conn.—If you select **When available** and you are in a network that supports packet data, the device registers to the packet data network. Starting an active packet data connection (for example, to send and receive e-mail) is quicker. If there is no packet data coverage, the device periodically tries to establish a packet data connection. If you select **When needed**, the device uses a packet data connection only if you start an application or action that needs it.

Access point—The access point name is needed to use your device as a packet data modem to your computer.

Wireless LAN

Show availability—Select whether  is displayed when a wireless LAN is available.

Scan for networks—If you set **Show availability** to **Yes**, select how often the device searches for available wireless LANs and updates the indicator.

To view advanced settings, select **Options > Advanced settings**. Changing wireless LAN advanced settings is not recommended.

Configs.

You may receive trusted server settings from your network operator or service provider in a configuration message, or the settings may be stored on your (U)SIM card. You can save these settings to your device, view, or delete them in **Configs.**

SIP settings

SIP (Session Initiation Protocol) settings are needed for certain network services using SIP, such as video sharing. You may receive the settings in a special text message from your network operator or service provider. You can view, delete, or create these setting profiles in **SIP settings**.



Date and time

See 'Clock settings', p. 14, and language settings in 'General', p. 93.



Security

Phone and SIM

PIN code request—When active, the code is requested each time the device is switched on. Deactivating the personal identification number (PIN) code request may not be allowed by some SIM cards. See 'Glossary of PIN and lock codes', p. 100.

PIN code, PIN2 code, and Lock code—You can change the lock code, PIN code, and PIN2 code. These codes can only include the numbers from **0** to **9**. If you forget any of these codes, contact your service provider. See 'Glossary of PIN and lock codes', p. 100.

Avoid using access codes similar to the emergency numbers to prevent accidental dialing of the emergency number.

Autolock period—You can set an autolock period, a time-out after which the device automatically locks. To turn off the autolock period, select **None**.

To unlock the device, enter the lock code.

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

 **Tip!** To lock the device manually, press . A list of commands opens. Select **Lock phone**.

Lock if SIM changed—You can set the device to ask for the lock code when an unknown SIM card is inserted into your device. The device maintains a list of SIM cards that are recognized as the owner's cards.

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

When calls are limited to closed user groups, calls may be possible to the official emergency number programmed into your device.

Confirm SIM services—You can set the device to display confirmation messages when you are using a SIM card service (network service).

Glossary of PIN and lock codes

If you forget any of these codes, contact your service provider.

Personal identification number (PIN) code—This code protects your SIM card against unauthorized use. The PIN

code (4 to 8 digits) is usually supplied with the SIM card. After three consecutive incorrect PIN code entries, the code is blocked, and you need the PUK code to unblock it.

UPIN code—This code may be supplied with the USIM card. The USIM card is an enhanced version of the SIM card and is supported by UMTS mobile phones.

PIN2 code—This code (4 to 8 digits) is supplied with some SIM cards, and is required to access some functions in your device.

Lock code (also known as security code)—This code (5 digits) can be used to lock the device to avoid unauthorized use. The factory setting for the lock code is **12345**. To avoid unauthorized use of your device, change the lock code. Keep the new code secret and in a safe place separate from your device. If you forget the code, contact your service provider.

Personal unblocking key (PUK) code and PUK2 code—These codes (8 digits) are required to change a blocked PIN code or PIN2 code, respectively. If the codes are not supplied with the SIM card, contact the operator whose SIM card is in your device.

UPUK code—This code (8 digits) is required to change a blocked UPIN code. If the code is not supplied with the USIM card, contact the operator whose USIM card is in your device.

Certif. management

Digital certificates do not guarantee safety; they are used to verify the origin of software.

In the certificate management main view, you can see a list of authority certificates that are stored in your device. Press  to see a list of personal certificates, if available.

Digital certificates should be used if you want to connect to an online bank or another site or remote server for actions that involve transferring confidential information. They should also be used if you want to reduce the risk of viruses or other malicious software and be sure of the authenticity of software when downloading and installing software.

 **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.

View certificate details—check authenticity

You can only be sure of the correct identity of a server when the signature and the period of validity of a server certificate have been checked.

You are notified if the identity of the server is not authentic or if you do not have the correct security certificate in your device.

To check certificate details, scroll to a certificate, and select **Options > Certificate details**. When you open certificate details, the validity of the certificate is checked, and one of the following notes may be displayed:

- **Certificate not trusted**—You have not set any application to use the certificate. See 'Change the trust settings', p. 101.
- **Expired certificate**—The period of validity has ended for the selected certificate.
- **Certificate not valid yet**—The period of validity has not yet begun for the selected certificate.
- **Certificate corrupted**—The certificate cannot be used. Contact the certificate issuer.

Change the trust settings

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.

Scroll to an authority certificate, and select **Options > Trust settings**. Depending on the certificate, a list of the

applications that can use the selected certificate is shown. For example:

- **Symbian installation: Yes**—The certificate is able to certify the origin of a new Symbian operating system application.
- **Internet: Yes**—The certificate is able to certify servers.
- **App. installation: Yes**—The certificate is able to certify the origin of a new Java™ application.

Select **Options > Edit trust setting** to change the value.



Call forwarding

Call forwarding allows you to forward your incoming calls to your voice mailbox or another phone number. For details, contact your service provider.

Select which calls you want to forward and the desired forwarding option. To forward voice calls when your number is busy or when you decline incoming calls, select **If busy**. Set the option on **(Activate)** or off **(Cancel)**, or check whether the option is activated **(Check status)**.

Several forwarding options can be active at the same time. When all calls are forwarded,  is shown in the standby mode.

Call restriction and call forwarding cannot be active at the same time.



Call restriction

Call restriction (network service) allows you to restrict the calls that you make or receive with the device. To change the settings, you need the restriction password from your service provider.

Select the desired restriction option, and set it on **(Activate)** or off **(Cancel)**, or check whether the option is active **(Check status)**. **Call restriction** affects all calls, including data calls.

Call restriction and call forwarding cannot be active at the same time.

When calls are restricted, calls may be possible to the official emergency number programmed into your device.



Network

Your device can automatically switch between the GSM and UMTS networks. The GSM network is indicated with  in the standby mode. The UMTS network is indicated with **3G**.

Network mode (shown only if supported by the network operator)—Select which network to use. If you select **Dual mode**, the device uses the GSM or UMTS network

automatically, according to the network parameters and the roaming agreements between the network operators. Contact your network operator for more details.

Operator selection—Select **Automatic** to set the device to search for and select one of the available networks, or **Manual** to manually select the network from a list of networks. If the connection to the manually selected network is lost, the device sounds an error tone and asks you to reselect a network. The selected network must have a roaming agreement with your home network, that is, the operator whose SIM card is in your device.

 **Glossary:** A roaming agreement is an agreement between two or more network service providers to enable the users of one service provider to use the services of other service providers.

Cell info display—Select **On** to set the device to indicate when it is used in a cellular network based on microcellular network (MCN) technology and to activate cell info reception.



Enhancement

In the standby mode,  indicates a headset is connected, and  that the headset is unavailable, or a Bluetooth connection to a headset is lost.  indicates a loopset is connected and  that a **TTY** is connected.

Select **Headset**, **Loopset**, **TTY**, **Bluetooth handsfree**, or **Music stand** and from the following:

Default profile—Set the profile that you want activated each time you connect a certain enhancement to your device. See 'Profiles—set tones', p. 90.

Automatic answer—Set if you want the device to answer an incoming call automatically after 5 seconds. If the Ringing type is set to **Beep once** or **Silent**, automatic answer is disabled. Automatic answer is not available for **TTY**.

Lights—Set whether lights remain on, or are switched off after the time-out. This setting is not available for all enhancements.

If you are using a **TTY**, you must activate it on your device. Press , and select **Tools > Settings > Enhancement > TTY > Use TTY > Yes**.



Voice commands

You can use voice commands to control your device. For more information about the enhanced voice commands supported by your device, see 'Voice dialing', p. 60.

To activate enhanced voice commands for starting applications and profiles, you must open the **Voice cm.**

application and its **Profiles** folder. Press , and select **Tools > Voice cm. > Profiles**; the device creates voice tags for the applications and profiles. To use enhanced voice commands, press and hold  in the standby mode, and say a voice command. The voice command is the name of the application or profile displayed in the list.

To add more applications to the list, select **Options > New application**. To add a second voice command that can be used to start the application, select **Options > Change command**, and enter the new voice command as text. Avoid very short names, abbreviations, and acronyms.

To listen to the synthesized voice tag, select **Options > Playback**.

To change voice command settings, select **Options > Settings**. To switch off the synthesizer that plays recognized voice tags and commands in the selected device language, select **Synthesizer > Off**. To reset voice recognition learning, for example, when the main user of the device has changed, select **Reset voice adapts..**



Application manager

Press , and select **Tools > App. mgr..** You can install two types of applications and software to your device:

- J2ME™ applications based on Java technology with the extension .jad or .jar ().
- Other applications and software suitable for the Symbian operating system (). The installation files have the .sis extension. Only install software specifically designed for your Nokia N80. Software providers will often refer to the official model number of this product: the Nokia N80-1.

Installation files may be transferred to your device from a compatible computer, downloaded during browsing, or sent to you in a multimedia message, as an e-mail attachment, or using Bluetooth connectivity or infrared. You can use Nokia Application Installer in Nokia PC Suite to install an application to your device. If you use Microsoft Windows Explorer to transfer a file, save the file to a compatible memory card (local disk).

Install applications and software

 indicates a .sis application,  a Java application,  that the application is not fully installed, and  that the application is installed on the memory card.

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

Before installation, note the following:

- To view the application type, version number, and the supplier or manufacturer of the application, select **Options > View details**.
 - To display the security certificate details of the application, select **Options > View certificate**. See 'Certif. management', p. 101.
 - If you install a file that contains an update or repair to an existing application, you can only restore the original application if you have the original installation file or a full back-up copy of the removed software package. To restore the original application, remove the application, and install the application again from the original installation file or the back-up copy.
 - The .jar file is required for installing Java applications. If it is missing, the device may ask you to download it. If there is no access point defined for the application, you are asked to select one. When you are downloading the .jar file, you may need to enter a user name and password to access the server. You obtain these from the supplier or manufacturer of the application.
- 1 To locate an installation file, press **Ⓜ**, and select **Tools > App. mgr.**. Alternatively, search the device memory or a memory card (if inserted) in **File mgr.**, or open a message in **Message > Inbox** that contains an installation file.
 - 2 In **App. mgr.**, select **Options > Install**. In other applications, scroll to the installation file, and press **Ⓜ** to start the installation.

During installation, the device shows information about the progress of the installation. If you are installing an application without a digital signature or certification, the device displays a warning. Continue installation only if you are sure of the origin and contents of the application.

To start an installed application, locate it in the menu, and press **Ⓜ**.

To start a network connection and to view extra information about the application, select **Options > Go to web address**, if available.

To see what software packages are installed or removed and when, select **Options > View log**.

To send your installation log to a help desk so that they can see what is installed or removed, select **Options > Send log > Via text message** or **Via e-mail** (available only if the correct e-mail settings are in place).

 **Important:** Your device can only support one antivirus application. Having more than one application with antivirus functionality could affect performance and operation or cause the device to stop functioning.

Remove applications and software

Scroll to a software package, and select **Options > Remove**. Select **Yes** to confirm.

If you remove software, you can only reinstall it if you have the original software package or a full backup of the removed software package. If you remove a software package, you may no longer be able to open documents created with that software.



Note: If another software package depends on the software package that you removed, the other software package may stop working. Refer to the documentation of the installed software package for details.

Settings

Select **Options > Settings** and from the following:

Online certif. check—Select to check the online certificates before installing an application.

Default web address—Set the default address used when checking online certificates.

Some Java applications may require a phone call, a message to be sent, or a network connection to a specific access point for downloading extra data or components. In the **App. mgr.** main view, scroll to an application, and select **Options > Suite settings** to change settings related to that specific application.



Activation keys for copyright-protected files

To view the digital rights activation keys stored in your device, press **⌘**, and select **Tools > Actv. keys** and from the following:

Valid keys—View keys that are connected to one or more media files and keys whose validity period has not started yet.

Invalid keys—View keys that are not valid; the time period for using the media file is exceeded or there is a protected media file in the device but no connected activation key.

Not in use—View keys that have no media files connected to them in the device.

To buy more usage time or extend the usage period for a media file, select an invalid activation key and **Options > Activate content**. Activation keys cannot be updated if Web service message reception is disabled. See 'Web service messages', p. 49.

To view detailed information, such as the validity status and ability to send the file, scroll to an activation key, and press **ⓘ**.

Troubleshooting: Q&A

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 device dealer.

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

For information about passwords, contact your access point provider, for example, a commercial Internet service provider (ISP), service provider, or network operator.

Application not responding

Q: How do I close an application that is not responding?

A: To open the application switching window, press and hold . Scroll to the application, and press  to close the application.

Bluetooth connectivity

Q: Why can't I find my friend's device?

A: 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 hidden mode.

Check that both devices are compatible.

Q: Why can't I end a Bluetooth connection?

A: If another device is connected to your device, you can either end the connection using the other device or by deactivating Bluetooth connectivity. Select **Connect.** > **Bluetooth** > **Off**.

Browser services

Q: What do I do if the following message is displayed: **No valid access point defined. Define one in Services settings.?**

A: Insert the correct browser settings. Contact your service provider for instructions.

Camera

Q: Why do images look smudgy?

A: Remove the protective plastic films covering the display and camera. Ensure that the camera lens protection window is clean.

Display

Q: Why do missing, discolored, or bright dots appear on the screen every time I turn on my device?

A: This is a characteristic of this type of display. Some displays may contain pixels or dots that remain on or off. This is normal, not a fault.

Home network (UPnP)

Q: Why can't the other device see the files stored on my device?

A: Make sure that you have configured the home network settings, **Content sharing** is turned on in your device, and the other device is UPnP compatible.

Log

Q: Why does the log appear empty?

A: You may have activated a filter, and no communication events fitting that filter have been logged. To see all events, select **My own** > **Log** > **Options** > **Filter** > **All communication**.

Memory low

Q: What can I do if my device memory is low?

A: You can delete the following items regularly to avoid memory getting low:

- Messages from **Inbox**, **Drafts**, and **Sent** folders in **Message**.
- Retrieved e-mail messages from the device memory
- Saved browser pages
- Images and photos in **Gallery**

To delete contact information, calendar notes, call timers, call cost timers, game scores, or any other data, go to the respective application to remove the data. If you are deleting multiple items and one of the following notes are shown: **Not enough mem-ory to perform operation. Delete some data first.** or **Memory low. Delete some data.**, try deleting items one by one (starting from the smallest item).

Q: How can I save my data before deleting it?

A: Save your data using one of the following methods:

- Use Nokia PC Suite to make a backup copy of all data to a compatible computer.
- Send images to your e-mail address, then save the images to your computer.
- Send data using Bluetooth connectivity to a compatible device.
- Store data on a compatible memory card.

Messaging

Q: Why can't I select a contact?

A: The contact card does not have a phone number or an e-mail address. Add the missing information to the contact card in **Contacts**.

Multimedia messaging

Q: What should I do when the device cannot receive a multimedia message because memory is full?

A: The amount of memory needed is indicated in the error message: **Not enough memory to retrieve message. Delete some data first.** To view what kind of data you have and how much memory the different data groups consume, select **File manager** > **Options** > **Memory details**.

Q: The note **Retrieving message** is shown briefly. What is happening?

A: The device is trying to retrieve a multimedia message from the multimedia messaging center.
Check that the settings for multimedia messaging are defined correctly and that there are no mistakes in phone numbers or addresses. Select **Messaging > Options > Settings > Multim. msg.**

Q: How can I end the data connection when the device starts a data connection again and again?

A: To stop the device from making a data connection, select **Messaging** and one of the following:
On receiving msg. > Defer retrieval—To have the multimedia messaging center save the message to be retrieved later, for example, after you have checked the settings. After this change, the device still needs to send information notes to the network. To retrieve the message now, select **Retr. immediately**.
On receiving msg. > Reject message—To reject all incoming multimedia messages. After this change, the device needs to send information notes to the network, and the multimedia messaging center deletes multimedia messages that are waiting to be sent to you.
Multimedia recept. > Off—To ignore all incoming multimedia messages. After this change, the device does not make any network connections related to multimedia messaging.

PC connectivity

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

A: Make sure that Nokia PC Suite is installed and running on your PC. See the user guide for Nokia PC Suite on the

CD-ROM. For further information on how to use Nokia PC Suite, see the help function on Nokia PC Suite or visit the support pages at www.nokia.com.

Q: Can I use my device as a fax modem with a compatible PC?

A: You cannot use your device as a fax modem. However, with call forwarding (network service), you can forward incoming fax calls to another phone number.

Wireless LAN

Q: Why can't I see a wireless LAN (WLAN) access point even though I know I'm within its range?

A: It may be that the WLAN access point uses a hidden service set identifier (SSID). You can only access networks that use a hidden SSID if you know the correct SSID and have created a WLAN Internet access point for the network on your Nokia device.

Q: How do I switch wireless LAN (WLAN) off on my Nokia device?

A: You cannot switch off WLAN on your Nokia device. To reduce battery consumption, you can specify that your Nokia device does not scan for available networks.

To turn off the background scan:

- 1 Press , and select **Tools > Settings > Connection > Wireless LAN**.
- 2 Change the value of **Scan for networks** to **Never**.
- 3 To save your changes, press **Done**.

When **Scan for networks** is set to **Never**, your Nokia device still listens to available networks, and you can use available WLAN networks as usual.

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Enhancements

If you want to enhance phone functionality, a range of enhancements is available for you. You can select any of these items to help accommodate your specific communication needs. For availability of these and other enhancements, contact your dealer.



Check the model number of any charger before use with this device. This device is intended for use when supplied with power from a DC-4, AC-3, or AC-4 charger, and from an AC-1, ACP-8, ACP-9, ACP-12, ACH-8, ACH-9, or ACH-12 charger when used with the CA-44 charger adapter.

 **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.

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

A few practical rules about accessories and enhancements.

- Keep all accessories and enhancements out of the reach of small children.
- When you disconnect the power cord of any accessory or enhancement, grasp and pull the plug, not the cord.
- Check regularly that enhancements installed in a vehicle are mounted and are operating properly.
- Installation of any complex car enhancements must be made by qualified personnel only.

Power

- Battery, 820 mAh, Li-Ion (BL-5B)
- Travel Charger (AC-4)
- Compact Charger (AC-3)
- Mobile Charger (DC-4)
- Charger Adapter (CA-44)

Data

- Connectivity Cable (CA-53)
- Wireless GPS Module (LD-1W)
- Wireless Keyboard (SU-8W)
- Digital Pen (SU-1B)
- 128 MB miniSD Card (MU-17)

Audio

- Fashion Stereo Headset (HS-3)
- Headset (HS-5)
- Boom Headset (HDB-4)
- Classic Stereo Headset (HS-23)
- Activity Headset (HS-8)
- Wireless Clip-on Headset (HS-21W)
- Wireless Boom Headset (HS-4W)
- Wireless Headset (HDW-3)
- Wireless Headset (HS-11W)
- Wireless Image Headset (HS-13W)
- Basic Wireless Headset (HS-26W)
- Music Stand (MD-1)
- Audio Adapter (AD-15)

Accessibility

- Inductive Loopset (LPS-4)
- TTY Adapter (HDA-10)

Car

- Headrest Handsfree (BHF-3)
- Plug-in Car Handsfree (HF-3)
- Plug-in Wireless Car Handsfree (HF-6W)
- Advanced Car Kit (CK-7W)
- Car Kit (CK-10U)
- Universal Mobile Holder (CR-39)

Battery information

Charging and discharging

Your device is powered by a rechargeable battery. The full performance of a new battery is achieved only after two or three complete charge and discharge cycles. The battery can be charged and discharged hundreds of times but it will eventually wear out. When the talk and standby times are noticeably shorter than normal, replace the battery. Use only Nokia approved batteries, and recharge your battery only with Nokia approved chargers designated for this device.

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

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

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

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

Leaving the battery in hot or cold places, such as in a closed car in summer or winter conditions, will reduce the capacity and lifetime of the battery. Always try to keep the battery between 15°C and 25°C (59°F and 77°F). A device with a hot or cold battery may not work temporarily, even when the battery is fully charged. Battery performance is particularly limited in temperatures well below freezing.

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

The BL-5B battery provides up to X hours of talk time and up to X hours of standby time. Battery talk and standby times are estimates only and depend on signal strength, network conditions, features used, battery age and condition, temperatures to which battery is exposed, and many other factors. The amount of time a phone is used for calls will affect its standby time. Likewise, the amount of time that the

phone is turned on and in standby mode will affect its talk time.

Nokia battery authentication guidelines

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

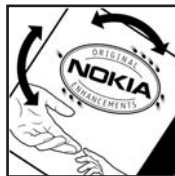
Successful completion of the four steps is not a total assurance of the authenticity of the battery. If you have any reason to believe that your battery is not an authentic original Nokia battery, you should refrain from using it, and take it to the nearest authorized Nokia service point or dealer for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

Authenticate hologram

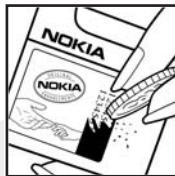
- 1 When looking at the hologram on the label, you should see the Nokia connecting hands symbol from one angle and the Nokia Original Enhancements logo when looking from another angle.



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



- 3 Scratch the side of the label to reveal a 20-digit code, for example 12345678919876543210. Turn the battery so that the numbers are facing upwards. The 20-digit code reads starting from the number at the top row followed by the bottom row.



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



What if your battery is not authentic?

If you cannot confirm that your Nokia battery with the hologram on the label is an authentic Nokia battery, please do not use the battery. Take it to the nearest authorized Nokia service point or dealer for assistance. The use of a battery that

is not approved by the manufacturer may be dangerous and may result in poor performance and damage to your device and its enhancements. It may also invalidate any approval or warranty applying to the device.

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

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Care and maintenance

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

- Keep the device dry. Precipitation, humidity, and all types of liquids or moisture can contain minerals that will corrode electronic circuits. If your device does get wet, remove the battery, and allow the device to dry completely before replacing it.
- Do not use or store the device in dusty, dirty areas. Its moving parts and electronic components can be damaged.
- Do not store the device in hot areas. High temperatures can shorten the life of electronic devices, damage batteries, and warp or melt certain plastics.
- Do not store the device in cold areas. When the device returns to its normal temperature, moisture can form inside the device and damage electronic circuit boards.
- Do not attempt to open the device other than as instructed in this guide.
- Do not drop, knock, or shake the device. Rough handling can break internal circuit boards and fine mechanics.
- Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the device.
- Do not paint the device. Paint can clog the moving parts and prevent proper operation.
- Use a soft, clean, dry cloth to clean any lenses, such as camera, proximity sensor, and light sensor lenses.
- Use only the supplied or an approved replacement antenna. Unauthorized antennas, modifications, or

attachments could damage the device and may violate regulations governing radio devices.

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

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

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Additional safety information

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

Operating environment

Remember to follow any special regulations in force in any area, and always switch off your device when its use is prohibited or when it may cause interference or danger. Use the device only in its normal operating positions. This device meets RF exposure guidelines when used either in the normal use position against the ear or when positioned at least 2.2 centimeters (7/8 inches) from the body. When a carry case, belt clip, or holder is used for body-worn operation, it should not contain metal and should position the device the above-stated distance from your body.

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

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

Medical devices

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

Pacemakers Pacemaker manufacturers recommend that a minimum separation of 15.3 centimeters (6 inches) be maintained between a wireless phone and a pacemaker to avoid potential interference with the pacemaker. These recommendations are consistent with the independent research by and recommendations of Wireless Technology Research. Persons with pacemakers should do the following:

- Always keep the device more than 15.3 centimeters (6 inches) from their pacemaker
- Not carry the device in a breast pocket
- Hold the device to the ear opposite the pacemaker to minimize the potential for interference.

If you suspect interference, switch off your device, and move the device away.

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

Vehicles

RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles such as electronic fuel injection systems, electronic antiskid (antilock) braking systems, electronic speed control systems, and air bag systems. For more information, check with the manufacturer, or its representative, of your vehicle or any equipment that has been added.

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

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

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

Potentially explosive environments

Switch off your device when in any area with a potentially explosive atmosphere, and obey all signs and instructions. Potentially explosive atmospheres include areas where you would normally be advised to turn off your vehicle engine. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death. Switch off the device at refueling points such as near gas pumps at service stations. Observe restrictions on the use of radio equipment in fuel depots, storage, and distribution areas; chemical plants; or where blasting operations are in progress. Areas with a potentially explosive atmosphere are often, but not always, clearly marked. They include below deck on boats, chemical transfer or storage facilities, vehicles using liquefied petroleum gas (such as propane or butane), and areas where the air contains chemicals or particles such as grain, dust or metal powders.

Emergency calls



Important: Wireless phones, including this device, operate using radio signals, wireless networks, landline networks, and user-programmed functions. Because of this, connections in all conditions cannot be guaranteed. You should never rely solely on any wireless device for essential communications like medical emergencies.

To make an emergency call:

- 1 If the device is not on, switch it on. Check for adequate signal strength.
Some networks may require that a valid SIM card is properly inserted in the device.
- 2 Press the end key as many times as needed to clear the display and ready the device for calls.
- 3 Enter the official emergency number for your present location. Emergency numbers vary by location.
- 4 Press the call key.

If certain features are in use, you may first need to turn those features off before you can make an emergency call. Consult this guide or your service provider for more information.

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

Certification information (SAR)

This mobile device meets guidelines for exposure to radio waves.

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

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 ????? 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 0.86 W/kg and when properly worn on the body is 1.05 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: QFXRM-92.

Technical information

Feature	Specification
Weight	4.7 oz (134 g) with BL-5B Li-Ion Battery
Size	Volume: 5.94 in ³ (97.4 cm ³) Length: 3.76 in (95.4 mm) Width: 1.97 in (50 mm) Thickness: 1.02 in (26 mm) with camera
Frequency range	GSM 850: 824–849 MHz (TX), 869–894 MHz (RX) GSM 900: 880–915 MHz (TX), 925–960 MHz (RX) GSM 1800: 1710–1785 MHz (TX), 1805–1880 MHz (RX) GSM 1900: 1850–1910 MHz (TX), 1930–1990 MHz (RX) UMTS 2100: 1920–1980 MHz (TX), 2110–2170 MHz (RX)
Transmitter output power	Up to 2 W
Battery voltage	3.7 V dc
Operating temperature	59°F to + 77°F (15°C to + 25°C)

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