

User guide

NOKIA
Nseries

Nokia N81-1 8GB

Issue 1 EN

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

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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 following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Any changes or modifications not expressly approved by Nokia could void the user's authority to operate this equipment.

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Issue 1 EN



Hello

Model number: Nokia N81-1. Hereinafter referred to as Nokia N81.

The Nokia N81 8GB device is entertainment on the go!

Enjoy high-quality music and gaming wrapped in a sleek and stylish package, complete with a brilliant 2.4-inch display, dedicated media and game keys, outstanding audio quality, and 8 GB of memory.

With your Nokia N81 8GB you can enjoy your favorite music on the go. The Nokia Music Store* offers you over one million songs to browse and purchase—over the air using your N81 8GB and at home with your compatible PC. If you are tired of struggling with wires, connect to compatible stereo headphones with Bluetooth connectivity.

Experience high quality mobile gaming with dedicated game keys and enjoy stellar graphics that give you a new way to have fun.

The multimedia menu offers you direct access and helps to explore your content quickly and easily. Experience intelligent key illumination, which keeps keys hidden until you need them.

Let the fun begin!

*To check the Nokia Music Store availability in your country, visit music.nokia.com.

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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 positions as explained in the product documentation. Do not touch the antenna areas 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 stored in your device.



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 standby mode. 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 (E)GSM 850, 900, 1800, and 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 local customs, privacy and legitimate rights of others, including copyrights.

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

Your device supports internet connections and other methods of connectivity. Like computers, your device may

be exposed to viruses, malicious messages and applications, and other harmful content. Exercise caution and open messages, accept connectivity requests, download content, and accept installations only from trustworthy sources. To increase the security of your device, consider installing, using, and regularly updating antivirus software, firewall, and other related software on your device and any connected computer.



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.

The office applications support common features of Microsoft Word, PowerPoint, and Excel (Microsoft Office 2000, XP, and 2003). Not all file formats can be viewed or modified.

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

Your device may have preinstalled bookmarks and links for third-party internet sites. You may also access other third-party sites through your device. Third-party sites are not affiliated with Nokia, and Nokia does not endorse or

assume liability for them. If you choose to access such sites, you should take precautions for security or content.

The images in this guide may differ from your device display.

Network services

To use the phone you must have service from a network service provider. Many of the features require special network features. These features are not available on all networks; other networks may require that you make specific arrangements with your service provider before you can use the network services. Your service provider can give you instructions and explain what charges will apply. Some networks may have limitations that affect how you can use network services. For instance, some networks may not support all language-dependent characters and services.

Your service provider may have requested that certain features be disabled or not activated in your device. If so, these features will not appear on your device menu. Your device may also have a special configuration such as changes in menu names, menu order, and icons. Contact your service provider for more information.

This device supports WAP 2.0 protocols (HTTP and SSL) that run on TCP/IP protocols. Some features of this device, such

as MMS, browsing, and e-mail require network support for these technologies.

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 an AC-3, AC-4, or AC-5 charger and from an AC-1, ACP-8, ACP-9, ACP-12, or LCH-12 charger when used with the CA-44 charger adapter.

The battery intended for use with this device is BP-6MT.



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.

Support

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 > Utilities > Help**. Select the desired application to view its help topics.

Get started

See the get started guide for keys and parts information, instructions for setting up the device and for other essential information.

Additional applications

There are various applications provided by Nokia and different third-party software developers that help you do more with your Nokia N81. These applications are explained in the guides that are

available on the Nokia N81 product support pages on www.nseries.com/support or your local Nokia website.

Nokia support and contact information

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

If you need to contact customer service, check the list of local Nokia contact centers at www.nokia.com/customerservice. For maintenance services, check your nearest Nokia service center at www.nokia.com/repair.

Your Nokia N81

Welcome

When you switch on your device for the first time, Welcome is displayed. Select from the following:

Settings wizard—to configure various settings, such as e-mail

Switch—to transfer content, such as contacts and calendar entries, from a compatible Nokia device. See 'Transfer content from another device', p. 12.

Demo—to view a demonstration about your device

To access **Welcome** later, press **⌵**, and select **Tools > Utilities > Welcome**. You can also access the individual applications from their menu locations.

Settings

Your device normally has MMS, GPRS, streaming, and mobile internet settings automatically configured in the device, based upon your network service provider information. You may have settings from your service providers already installed in your device, or you may receive or request the settings from the network service providers as a special message.

To change the general settings in your device, such as language, standby mode, and display settings, see 'Phone', p. 117.

Transfer content from another device



With the **Switch** application, you can transfer content, such as contacts and calendar entries, between two compatible Nokia devices using Bluetooth connectivity.

When using the application for the first time, you can transfer content from a compatible Nokia device to your Nokia N81.

The type of content that can be transferred depends on the model of the device from which you want to transfer content. Your device notifies you if the other device is not compatible.

The **Switch** application can be used without the SIM card, too. If the other device cannot be powered on without a SIM card, you can insert your SIM card in it. When the Nokia N81 is switched on without a SIM card, the offline profile is automatically activated.

Transfer content

- 1 To retrieve data from your other device for the first time, on your Nokia N81, select **Phone switch** in the Welcome application, or press , and select **Tools > Utilities > Switch**.
- 2 To have the Nokia N81 search for devices with Bluetooth connectivity, select **Continue**. If you have not already defined a name for your Nokia N81, you are prompted for one. Accept the default name, or define a name of your own.
- 3 For some device models, the **Switch** application is sent to the other device as a message. To install **Switch** on the other device, open the message, and follow the instructions on the display.
- 4 Select the device from which you want to transfer content from the list. You are asked to enter a code on your Nokia N81. Enter a code of your choosing (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. 74.
- 5 Select the content you want to transfer. Once the transfer has started, you can cancel it and continue later.

Synchronize, retrieve, or send content

After the first transfer, you may select from the following to start a new transfer, depending on the model of the other device:

 to synchronize content between your Nokia N81 and the other device, if the other device supports synchronization. The synchronization is two-way. If an item is deleted in one device, it is deleted in both. You cannot restore deleted items with synchronization.

 to retrieve data from the other device to your Nokia N81. With retrieval, data is transferred from the other device to your Nokia N81. You may be asked to keep or delete the original data in the other device, depending on the device model.

 to send data from your Nokia N81 to your other device

If **Phone switch** cannot transfer an item, depending on the type of the other device, you can add the item to the **Nokia** folder to C:\Data\Nokia or E:\Data\Nokia and transfer it from there. When you select the folder to transfer, the items are synchronized in the corresponding folder in the other device, and vice versa.

Use shortcuts to repeat a transfer

After a data transfer, you can save a shortcut with the transfer settings to the main view to repeat the same transfer later.

To edit the shortcut, scroll to it, and select **Options > Shortcut settings**. You can, for example, create or change the name of the shortcut.

A transfer log is shown after every transfer. To view the log of a previous transfer, scroll to a shortcut in the main view, and select **Options > View log**.

Handle transfer conflicts

If an item to be transferred has been edited in both devices, the device attempts to merge the changes automatically. If this is not possible, there is a transfer conflict. Select **Check one by one**, **Priority to this phone**, or **Priority to other phone** to solve the conflict. For further instructions, select **Options > Help**.

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 Messaging.

 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 **Ringing type** is set to **Silent**, and **Message 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 diverted to another number. If you have two phone lines (network service), a number indicates the active line.

 A compatible headset is connected to the device.  indicates the connection has been lost.

 A compatible loopset is connected to the device.

 A compatible **Text phone** is connected to the device.

D A data call is active.

 A GPRS packet data connection is active.  indicates the connection is on hold and  that a connection is available.

 A packet data connection is active in a part of the network that supports EDGE.  indicates the connection is on hold and  that a connection is available. The icons indicate that EDGE is available in the network, but your device is not necessarily using EDGE in the data transfer.

3G A UMTS packet data connection is active.  indicates the connection is on hold and  that a connection is available.

 You have set the device to scan for wireless LANs, and a wireless LAN is available. See 'Wireless LAN', p. 70.

 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. When the indicator is blinking, your device is trying to connect with another device.

 A USB connection is active.

Navi™ scroll key

Hereinafter referred to as the scroll key.

Use the scroll key to move around the menus (, , , ) and to select items (). To activate the additional Navi™ wheel functionality, press , and select Tools > Settings > General > Navi wheel > Navi wheel > On.

Use Navi wheel to quickly browse through lists in the gallery and music player, and to navigate in the multimedia menu. Just slide your finger around the rim of the scroll key clockwise or counterclockwise.

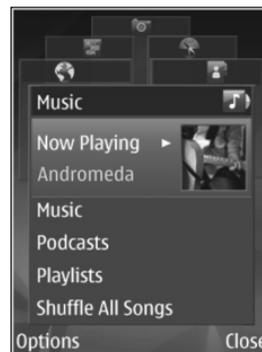
 **Tip!** When in the menus, instead of using the scroll key, you can use the number keys, #, and * to quickly access the applications. For example, in the main menu, press 2 to open Messaging.

Multimedia menu

With the multimedia menu, you have quick and easy access to multimedia content, games, your most important contacts, and most recent internet bookmarks and landmarks. Try it, for example, for images and music.

To open or close the multimedia menu, press . To browse the tiles, either use the scroll key or the Navi wheel functionality. To return to the multimedia menu from an open application, press .

To change the order of the tiles, select Options > Arrange tiles.



Power saver LED

The display is switched off to save battery power after the screen saver is activated. A LED blinks to indicate that the device is powered on, but in the sleep mode.

To switch off the LED, see 'Sleep mode', p. 114.

Volume and loudspeaker control

To increase or decrease the volume level when you have an active call or are listening to a sound, press the volume key.

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



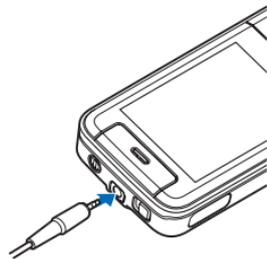
Warning: Do not hold the device near your ear when the loudspeaker is in use, because the volume may be extremely loud.

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

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

Headset

You can connect a compatible headset or compatible headphones to the Nokia AV Connector (3.5 mm) of your device. You may need to select the cable mode.



Do not connect products that create an output signal as this may cause damage to the device. Do not connect any voltage source to the Nokia AV Connector.

When connecting any external device or any headset, other than those approved by Nokia for use with this device, to the Nokia AV Connector, pay special attention to volume levels.



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.

To optimize audio performance, attach the supplied earpads to the headset.

To use a headset or headphones with a compatible remote control unit, for example, the Nokia Audio Adapter AD-54, connect the unit to the connector in the device, then connect the headset or headphones to the unit.

Some headsets do not include a microphone. For phone calls, use such a headset with a remote control unit or the microphone of the device.

The Nokia Audio Adapter AD-54 has multimedia volume controls that are used to adjust the volume only for music or video playback.

When using certain headset enhancements, for example, the Nokia Audio Adapter AD-54, to adjust the volume during a call, use the volume key in the device.

Prolong battery life

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

To prolong the operating time of your device, switch Bluetooth connectivity off when you do not need it. Also set **Packet data connection** to **When needed** for the device to use a packet data connection only if you start an application or action that needs it. See 'Packet data', p. 123.

To close the applications running in the background that you do not use, press and hold , select the applications from the list, and press .

Maps



Press , and select **Maps**. With an external Bluetooth GPS receiver and Maps, you can see your current location on the map, browse maps for different cities and countries, search for addresses and different points of interest, and plan routes from one location to another.

You can also purchase extra services, such as city guides and a navigation service with voice guidance.

For more information on the application, see www.nseries.com/support or your local Nokia website.

Download!



Download! (network service) is a mobile content shop available on your device. You can browse, download, and install items, such as applications and media files, to your device from the internet.

Press , and select **Download!**.

The items are categorized under catalogs and folders provided by different service providers. Some items may be chargeable, but you can usually preview them free of charge.

Software updates

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

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

If software updates over the air are supported by your network, you may also be able to request updates through the device. See 'Device manager' and 'Software updates', p. 76.

 **Tip!** To check the software version in your device, enter ***#0000#** in the standby mode.

Music

Music player

Music player supports file formats such as .aac, .aac+, .eac+, .mp3, .wav, and .wma. Music player does not necessarily support all features of a file format or all the variations of file formats.

You can also use Music player to listen to podcast episodes. Podcasting is the method for delivering audio or video content over the internet using either RSS or ATOM technologies for playback on mobile devices and PCs.

 **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 add songs to your device, see 'Transfer music', p. 21.

For more information about copyright protection, see 'Digital rights management', p. 109.

Play a song or a podcast episode

 **Tip!** To open the music player tile of the multimedia menu, press . See 'Multimedia menu', p. 15.

- 1 Press , and select Music > Music player.
- 2 Select Music or Podcasts.
- 3 Select categories to navigate to the song or podcast episode you want to hear.
- 4 To play the selected file or list of files, press .

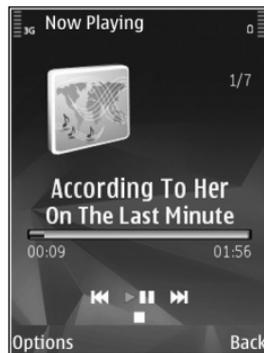
To pause playback, press , and to resume, press  again. To stop playback, press .

To fast forward or rewind, press and hold  or .

To go to the next item, press . To return to the beginning of the item, press . To skip to the previous item, press  again within 2 seconds after a song or podcast has started.

To switch random play () on or off, select Options > Shuffle.

To repeat the current item () or all items () or to switch repeat off, select Options > Repeat.



If you play podcasts, shuffle and repeat are automatically switched off.

To adjust the volume, use the volume key.

To modify the tone of the music playback, select **Options > Equaliser**.

To modify the balance and stereo image or to enhance bass, select **Options > Audio settings**.

To view a visualization during playback, select **Options > Show visualisation**.

To return to the standby mode and leave the player playing in the background, press the end key, or to switch to another open application, press and hold .

Music menu

To select more music to play in the **Now playing** view, select **Music**.

The music menu shows the music available in the device. **All songs** lists all music. To view sorted songs, select **Albums**, **Artists**, **Genres**, or **Composers**. To view playlists, select **Playlists**.

To refresh the library after you have updated your device outside Music player, select **Options > Refresh**.

Playlists

To view and manage playlists, in the music menu, select **Playlists**. The following playlists appear automatically: **Most played**, **Recently played**, and **Recently added**.

To view details of the playlist, select **Options > Playlist details**.

Create a playlist

- 1 Select **Options > Create playlist**.
- 2 Enter a name for the playlist, and select **OK**.
- 3 Select **Yes** to add songs now or **No** to add the songs later.
- 4 If you selected **Yes**, select artists to find the songs you want to include in the playlist. Press  to add items. To show the song list under an artist title, press . To hide the song list, press .
- 5 When you have made your selections, select **Done**.

To add more songs later, when viewing the playlist, select **Options > Add songs**.

To add songs, albums, artists, genres, and composers to a playlist from the different views of the music menu, select an item and **Options > Add to a playlist > Saved playlist** or **New playlist**.

To remove a song from a playlist, select **Options > Remove**. This does not delete the song from the device; it only removes it from the playlist.

To reorder songs in a playlist, scroll to the song you want to move, and select **Options > Reorder list**. To grab songs and drop them to a new position, use the scroll key.

Podcasts

The Podcast menu shows the podcasts available in the device.

To refresh the collection after you have updated your device outside Music player, select **Options > Refresh**.

Podcast episodes have three states: Never played, Partially played, and Completely played.

If an episode is partially played, it plays from the last playback position the next time it is played.

If an episode is never played or completely played, it plays from the beginning.

Home network with music player

With UPnP architecture and a wireless local area network (WLAN), you can create a home network of compatible devices. Home network enables you to play content stored in your Nokia N81 remotely on a compatible device. You can also copy files from your Nokia N81 to a compatible UPnP enabled device. For more information, see 'Home network', p. 77 and 'Home network with Gallery', p. 51.

Play a song or a podcast remotely

- 1 Press **⌘**, and select **Music > Music player**.
- 2 Select music or podcasts.
- 3 Select categories in the following menus to navigate to the song or podcast episode you want to hear.
- 4 Select the song or podcast you want to hear, and select **Options > Play > Play via home network**.
- 5 Select the device in which the file is played.

Copy songs or podcasts wirelessly

To copy or transfer media files from your device to another compatible device, such as a UPnP compatible PC, select a file and **Options > Copy to home network** or **Move to home net..** Content sharing does not have to be switched on.

Transfer music

You can transfer music from a compatible PC or other compatible devices using a compatible USB cable or Bluetooth connectivity. For details, see 'Bluetooth connectivity', p. 72.

PC requirements for music transfer:

- Microsoft Windows XP operating system (or later)
- A compatible version of the Windows Media Player application. You can get more detailed information

about Windows Media Player compatibility from the Nokia N81 section of the Nokia website.

- Nokia Nseries PC Suite 1.6 or later

Transfer music from PC

You can use three different methods to transfer music:

- To view your device on a PC as an external mass memory where you can transfer any data files, make the connection with a compatible USB cable or Bluetooth connectivity. If you are using the USB cable, select **Data transfer** as the connection mode.
- To synchronize music with Windows Media Player, connect the compatible USB cable and select **Media player** as the connection mode.
- To use Nokia Music Manager in Nokia Nseries PC Suite, connect the compatible USB cable and select **PC Suite** as the connection mode.

Mass storage and media player modes can only be used with files placed in the mass memory of your device.

To change the default USB connection mode, press **Ⓜ**, and select **Tools > Connectivity > USB > USB mode**.

If you transfer music using **Data transfer** or **PC Suite** transfer mode, you must refresh the library in your device after you have updated the song selection in your device. To refresh the library, in the **Music** menu, select **Options > Refresh**.

Both Windows Media Player and Nokia Music Manager in Nokia Nseries PC Suite have been optimized for transferring music files. For information about transferring music with Nokia Music Manager, see the Nokia Nseries PC Suite user guide.

Music transfer with Windows Media Player

Music synchronization functions may vary between different versions of the Windows Media Player application. For more information, see the corresponding Windows Media Player guides and help.

Manual synchronization

After connecting your device with a compatible PC, Windows Media Player selects manual synchronization if there is not enough free memory in your device. With manual synchronization, you can select the songs and playlists that you want to move, copy, or remove.

The first time you connect your device you must enter a name that is used as the name of your device in Windows Media Player.

To transfer manual selections:

- 1 After your device is connected with Windows Media Player, select your device in the navigation pane, if more than one device is connected.

- 2 Drag the songs or albums to the list pane for synchronization. To remove songs or albums, select an item in the list, and click **Remove from list**.
- 3 Check that the list pane contains the files you want to synchronize and that there is enough free memory on the device. Click **Start Sync** to start the synchronization.

Automatic synchronization

To change the default file transfer option in Windows Media Player, click the arrow under **Sync**, select your device, and click **Set up Sync**. Clear or select the **Sync this device automatically** check box.

If the **Sync this device automatically** check box is selected and you connect your device, the music library in your device is automatically updated based on playlists you have selected in Windows Media Player.

If no playlists have been selected, the whole PC music library is selected for synchronization. Note that your PC library may contain more files that can fit to the device. See the Windows Media Player help for more information.

The playlists on your device are not synchronized with the Windows Media Player playlists.

Nokia Music Store

In the Nokia Music Store (network service) you can search, browse, and purchase music to download to your device. To purchase music, you first need to register for the service.

To check the Nokia Music Store availability in your country, visit music.nokia.com.

To access the Nokia Music Store, you must have a valid internet access point in the device. For more details, see 'Access points', p. 121.

To open the Nokia Music Store, press , and select **Music > Music store**. In the main page, select **Help** for further instructions.

 **Tip!** To find more music in different categories of the music menu, select **Options > Find in Music store** in the music player.

Music store settings

You may be asked to enter the following settings:

Default acc. pt.—Select the access point to use when connecting to the music store.

In the music store, you may be able to edit the settings by selecting **Options > Settings**.

You can also access the Nokia Music Store from your compatible PC at music.nokia.com. In the main page, select **Help** for further instructions.

Radio



Press **Ⓜ**, and select **Music > Radio**.

When you open Visual Radio for the first time, a wizard helps you to save local stations.

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.

You can see the latest list of all the stations that offer Visual Radio service at <http://www.visualradio.com>.

If you do not have access to the Visual Radio service, the operators and radio stations in your area may not support Visual Radio.

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

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.

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 **Music > Radio**. To start a station search, select  or , or press and hold the media keys  or . To change the frequency manually, select **Options > Manual tuning**.

If you have previously saved radio stations, to go to the next or previous saved station, select  or , or press the media keys  or .

To adjust the volume, press the volume keys.

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 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.

Saved stations

To open the list of your saved stations, 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 Radio service.

Access point—Select the access point used for the Visual Radio 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.

Nokia Podcasting

With the Nokia Podcasting application, you can search, discover, subscribe to, and download podcasts over the air, and play, manage, and share audio and video podcasts with your device.

To open Nokia Podcasting, press , and select **Music > Podcasting**.

Settings

Before using Nokia Podcasting, set your connection and download settings.

The recommended connection method is wireless LAN (WLAN). Check with your service provider for terms and data service fees before using other connections. For example, a flat rate data plan can allow large data transfers for one monthly fee.

To search for wireless LANs available within range, press  and select **Tools > Connectivity > Conn. mgr. > Available WLAN networks**.

To create an internet access point in a network, select **Options > Define access point**.

Connection settings

To edit the connection settings, press  and select **Music > Podcasting > Options > Settings > Connection**. Define the following:

Default access point—Select the access point to define your connection to the internet.

Search service URL—Define the podcast search service to be used in **Search**.

Download settings

To edit the download settings, press , and select **Music > Podcasting > Options > Settings > Download**. Define the following:

Save to—Define the location where you want to save your podcasts. For optimal use of storage space, mass memory is recommended.

Update interval—Define how often podcasts are updated.

Next update date—Define the date of the next automatic update.

Next update time—Define the time of next automatic update.

Automatic updates only occur if a specific default access point is selected and Nokia Podcasting is running. If Nokia Podcasting is not running, the automatic updates are not activated.

Download limit (%)—Define the size of the memory that is used for podcast downloads.

If limit exceeds—Define what to do if the downloads exceed the download limit.

Setting the application to retrieve podcasts automatically may involve the transmission of large amounts of data through your service provider's network. Contact your

service provider for information about data transmission charges.

To restore the default settings, select **Options > Restore default** in the **Settings** view.

Search

Search helps you to find podcasts by keyword or title.

The search engine uses the podcast search service you set up in **Podcasting > Options > Settings > Connection > Search service URL**.

To search for podcasts, press , select **Music > Podcasting > Search**, and enter the desired keywords.



Tip! Search looks for podcast titles and keywords in descriptions, not specific episodes. General topics, such as football or hip-hop, usually give better results than a specific team or artist.

To subscribe to a marked channel or channels and add it to your **Podcasts**, select **Options > Subscribe**. You can also add a podcast to your **Podcasts** by selecting one.

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

To go the website of the podcast select **Options > Open web page** (network service).

To see the details of a podcast, select **Options > Description**.

To send a selected podcast or podcasts to another compatible device, select **Options > Send**.

The available options may vary.

Directories

Directories help you to find new podcast episodes to which to subscribe.

To open **Directories**, press , and select **Music > Podcasting > Directories**.

Contents of the **Directories** change. Select the desired directory folder to update it (network service). When the color of the folder changes, press the scroll key again to open it.

Directories can include top podcasts listed by popularity or themed folders.

To open the desired folder topic, press the scroll key. A list of podcasts is displayed.

To subscribe to a podcast, select the title, and press the scroll key. After you have subscribed to episodes of a podcast, you can download, manage, and play them in **Podcasts**.

To add a new directory or folder, select **Options > New > Web directory or Folder**. Enter a title, URL of the .opml (Outline Processor Markup Language), and select **Done**.

To edit the selected folder, web link, or web directory, select **Options > Edit**.

To import an .opml file stored on your device, select **Options > Import OPML file**. Select the location of the file, and import it.

To send a directory folder as a multimedia message or by Bluetooth connectivity, select the folder and **Options > Send**.

When you receive a message with an .opml file sent by Bluetooth connectivity, open the file to save the file into **Received in Directories**. Open **Received** to subscribe to any of the links to add to your **Podcasts**.

Download

After you have subscribed to a podcast, from **Directories**, **Search**, or by entering a URL, you can manage, download, and play episodes in **Podcasts**.

To see the podcasts you have subscribed to, select **Podcasting > Podcasts**. To see individual episode titles (an episode is a particular media file of a podcast), select the podcast title.

To start a download, select the episode title. To download, or continue downloading selected or marked episodes, select **Options > Download** or **Continue download**. You can download multiple episodes at the same time.

To play a portion of a podcast during download or after partial downloading, select **Podcasts > Options > Play preview**.

Fully downloaded podcasts can be found in **Podcasts** folder, but will not be shown until the music library is refreshed.

The available options may vary.

Play and manage podcasts

To display the available episodes from the selected podcast, select **Options > Open**. Under each episode, you will see the file format, the size of the file, and time of the upload.

When the podcast is fully downloaded, to play the full episode, select **Podcasts > Options > Play**, or press  and select **Music > Music player > Podcasts**.

To update the selected podcast, or marked podcasts, for a new episode, select **Options > Update**.

To stop the updating of the selected podcast or marked podcasts, select **Options > Stop update**.

To add a new podcast by entering the URL of the podcast, select **Options > New podcast**.

If you do not have an access point defined or if during packet data connection you are asked to enter a user name and password, contact your service provider.

To edit the URL of the selected podcast, select **Options > Edit**.

To delete a downloaded podcast or marked podcasts from your device, select **Options > Delete**.

To send the selected podcast or marked podcasts to another compatible device as .opml files as a multimedia message or by Bluetooth connectivity, select **Options > Send**.

To update, delete, and send a group of selected podcasts at once, select **Options > Mark/Unmark** mark the desired podcasts, and select **Options** to choose the desired action.

To open the website of the podcast (network service), select **Options > Open web page**.

Some podcasts provide the opportunity to interact with the creators by commenting and voting. To connect to the internet to do this, select **Options > View comments**.

Games

Your Nokia N81 is compatible with the N-Gage™ gaming experience. With N-Gage, you can download and play high-quality multiplayer games.

Your device includes either one of the following applications:

- Discover N-Gage application—With this preview application you can get information about the upcoming N-Gage gameplay experience, try out game demos, and download and install the full N-Gage application when it becomes available
- N-Gage application—The full featured application gives you access to the complete N-Gage experience replacing the Discover N-Gage application in the menu. You can find new games, try and buy games, find other players, and access scores, events, chat, and more. Some features may not be available at the time of software installation on your device, check www.n-gage.com for software updates.

Press , and select **Games** to get started.

For the full N-Gage experience, you need internet access on your device, either through the cellular network or wireless LAN. Contact your service provider for more information on data services.

For more information, visit www.n-gage.com.

Contacts (phonebook)

Press **☰**, and select **Contacts**. In **Contacts** you can save and update contact information. 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. Contact information can only be sent to or received from compatible devices.

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

Save and edit 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**. You can also search for the desired contact by entering the first letters of the name to the search field. A list of the contacts starting with the letters appear on the display.

 **Tip!** To add and edit contact cards, you can also use Nokia Contacts Editor available in Nokia Nseries 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.

To listen to the voice tag assigned to the contact, select a contact card and **Options > Play voice tag**. See 'Voice dialing', p. 90.

To send contact information, select the card you want to send and **Options > Send business card > Via text message, Via multimedia, Via e-mail, or Via Bluetooth**. See 'Messaging', p. 34 and 'Send data using Bluetooth connectivity', p. 73.

 **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 add a contact to a group, select **Options > Add to group** (shown only if you have created a group). See 'Create contact groups', p. 33.

To check to which groups a contact belongs, select the contact and **Options > Belongs to groups**.

To delete a contact card in **Contacts**, select a card, and press **C**.

Default numbers and addresses

You can assign default 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 default number is also used in voice dialing.

- 1 In **Contacts**, select a contact.
- 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 default 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**, the names you want to copy and **Options > Copy to Contacts**.

To copy contacts to your SIM card, in **Contacts**, select the names you want to copy and **Options > Copy to SIM directory**, 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 Nseries 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 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 dial contacts**. This setting is only shown if supported by your SIM card.

To restrict calls from your device to selected phone numbers, select **Options > Activate fixed dialling**. You need your PIN2 code to activate and deactivate fixed dialing or edit your fixed dialing contacts. Contact your service provider if you do not have the code. 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 dialling**, 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

To define a ringing tone for a contact or a contact group, do the following:

- 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 members of selected group. You can also use a video clip as a ringing tone.

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).

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 and select **OK**.
- 4 Select the group and **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, select 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.

Messaging

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

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

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

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

Messaging 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. You can also create and save your own templates.

 **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. 41.

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

 **Sent**—The last messages that have been sent, excluding messages sent using Bluetooth connectivity are stored here. To change the number of messages to be saved, see 'Other settings', p. 43.

 **Outbox**—Messages waiting to be sent are temporarily stored in the outbox, for example, when your device is outside network coverage.

 **Reports**—You can request the network to send you a delivery report of the text messages and multimedia messages you have sent (network service).

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 **Messaging**.

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**.

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.

To switch between the letter and number mode, press and hold #. To switch between the different character modes, press #.

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

☞ is displayed when you write text using traditional text input and ☞ when using predictive text input.

With predictive text, 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.

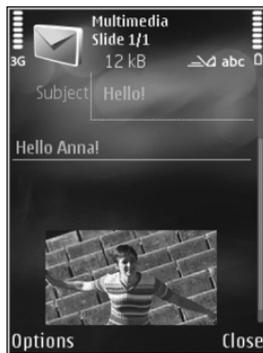
To turn predictive text input on or off, quickly press # twice.

Write and send messages

Before you can create a multimedia message or write an e-mail, you must have the correct connection settings in place. See 'E-mail settings', p. 37 and 'E-mail', p. 41.

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 message**—to send a text message
 - Multimedia message**—to send a multimedia message (MMS)
 - Audio message**—to send an audio message (a multimedia message that includes one sound clip)
 - E-mail**—to send an e-mail
- 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 the 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**.
- 6 To take a new picture or record sound or video for a multimedia message,



select **Options > 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, Note, or Other** for other file types. E-mail attachments are indicated by .

8 To send the message, select **Options > Send**, or press the call key.

 **Note:** Your device may indicate that your message was sent to the message center number programmed into your device. Your device may not indicate whether the message is received at the intended destination. For more details about messaging services, contact your service provider.

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, take up more space, limiting the number of characters that can be sent in a single message.

You may not be able to send video clips that are saved in the .mp4 format or that exceed the size limit of the wireless network in a multimedia message.

 **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. 40.

Inbox—receive messages

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

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, such as business cards, ringing tones, operator logos, calendar entries, and e-mail notifications. You may also receive settings from your service provider or company information management department in a configuration message.

To save the data from the message, select **Options** and the corresponding option.

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

E-mail settings

 **Tip!** Use **Settings wizard** to define your mailbox settings. Press  , and select **Tools > Utilities > Sett. wizard**.

To use e-mail, you must have a valid internet access point (IAP) in the device and define your e-mail settings correctly. See 'Access points', p. 121.

If you select **Mailbox** in the **Messaging** 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. 41.

You must have a separate e-mail account. Follow the instructions given by your remote mailbox and internet service provider (ISP).

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.

To view previously retrieved e-mail messages offline, select **No**.

To create a new e-mail message, select **New message > E-mail** in the messaging main view or **Options > Create message > E-mail** in your mailbox. See 'Write and send messages', p. 35.

Retrieve e-mail messages

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

Select **Options > Retrieve e-mail** and one of the options. To close the connection, select **Options > Disconnect**. To open an e-mail message, press the scroll key .

- 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 messages
Selected—to retrieve only the messages that have been marked
All—to retrieve all messages from the mailbox
 To stop retrieving messages, select **Cancel**.

- 2 If you want to close the connection and view the e-mail messages offline, select **Options > Disconnect**.
- 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 the message, and select the attachment field indicated by . If the attachment has a dimmed indicator, it has not been retrieved to the device; select **Options > Retrieve**.

Retrieve e-mail messages automatically

To retrieve messages automatically, select **Options > E-mail settings > Automatic retrieval**. For more information, see 'Automatic retrieval', p. 42.

Setting the device to retrieve e-mail automatically may involve the transmission of large amounts of data through your service provider's network. Contact your service provider for information about data transmission charges.

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 message 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 message from:**, select **Phone and server**.

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

Disconnect from the mailbox

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

Listen to messages

You can listen to audio, mail, multimedia, and text messages in the **Inbox**.

To listen to a message, select it and select **Options > Listen**.

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 **Messaging** 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, and you may not be able to change, create, edit, or remove them.

Text messages

Press **Ⓜ**, and select **Messaging > Options > Settings > Text message** and from the following:

Message centres—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**.

Message centre 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 message cannot be sent within the validity period, the message is deleted from the message center.

Message sent as—Contact your service provider to learn if your message center is able to convert text messages into these other formats.

Preferred connection—Select the connection to be used.

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

Multimedia messages

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

Image size—Define the size of the image in a multimedia message.

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. If you select **Restricted**, the device prevents you from sending messages that may not be supported. To include content in your messages without notifications, select **Free**.

Access point in use—Select which access point is used as the preferred connection.

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

Outside your home cellular 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 cellular network.

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

Receive adverts—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).

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

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

E-mail

Press **ⓘ**, and select **Messaging > Options > Settings > E-mail**.

To select which mailbox you want to use for sending e-mail, select **Mailbox in use** and a mailbox.

To remove a mailbox and its messages from your device, scroll to it, and press **⌫**.

To create a new mailbox, select **Options > New mailbox**.

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

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 server—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 'Access points', p. 121.

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 cannot be changed.

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.

Outgoing mail server—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 service provider. Contact your service provider for more information.

The settings for **User name**, **Password**, **Access point in use**, **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 send a copy of the e-mail to your own mailbox.

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, a note, and a mail indicator) when new mail is received.

Retrieval settings

E-mail to retrieve—Define which parts of the e-mail are retrieved: **Headers only**, **Size limit (POP3)**, or **Msgs. & attachs. (POP3)**.

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—To automatically retrieve the headings to your device when you receive new e-mail in your remote mailbox, select **Auto-update** or **Only in home netw..**

E-mail retrieval—To automatically retrieve the headings of new e-mail messages from your remote mailbox at defined times, select **Enabled** or **Only in home netw..** Define when and how often the messages are retrieved.

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

Setting the device to retrieve e-mail automatically may involve the transmission of large amounts of data through

your service provider's network. Contact your service provider for information about data transmission charges.

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.

Number of saved msgs.—Define how many sent messages are saved to the **Sent** folder at a time. When the limit is reached, the oldest message is deleted.

Memory in use—Select the memory where you want to save your messages: **Phone memory** or **Mass memory**.

Gallery

To store and organize your images, video clips, sound clips, playlists, and streaming links, or share your files with other compatible UPnP devices through wireless LAN, press , and select Gallery.

 **Tip!** To open the image tile of the multimedia menu, press . See 'Multimedia menu', p. 15.

View and browse files

Select Images & videos , Tracks, , Lifeblog , Sound clips , Streaming links , Presentations , or All files , and press  to open it. The content in the Images & videos folder is shown in the landscape mode.

You can browse and open folders; and mark, copy, and move items to folders. You can also create albums; and mark, copy, and add items to albums.

To open a file, press . Video clips, .ram files, and streaming links are opened and played in RealPlayer, and music and sound clips in Music player. See 'RealPlayer', p. 102, and 'Music player', p. 19.

To download images or videos, in the Images & videos folder, select the download icon. The browser opens, and

you can select a bookmark you want to use to download items.

Images and video clips

Pictures taken and video clips recorded with the camera are stored in the Images & videos folder in Gallery. Images and video clips can also be sent to you in a multimedia message, as an e-mail attachment, or through Bluetooth connectivity. To be able to view a received image or video clip in Gallery or in the Real player, you must first save it.

Select Gallery > Images & videos. The images and video clip files are in a loop, and ordered by date. The number of files is displayed.

When the image is opened, to zoom in an image, press the game keys next to the display. The zooming ratio is not stored permanently.

To rotate the selected image left or right, select Options > Rotate > Left or Right.

To edit a video clip or a photo, select Options > Edit. An image editor or a video editor opens. See 'Edit video clips', p. 47. See 'Edit images', p. 46.

To create custom video clips, select a video clip in the gallery, and select **Options > Edit**. See 'Edit video clips', p. 47.

To print your images on a compatible printer, or to store them for printing, select **Options > Print**. See 'Image print', p. 49. You can also tag images for later printing to the Print Basket in **Gallery**. See 'Print Basket', p. 45.

To add an image or a video clip to an album in the gallery, select **Options > Albums > Add to album**.

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

To delete an image or video clip, from the active toolbar, select **Delete**. See 'Active toolbar', p. 45.

To switch from **Gallery** to the camera, press the capture key.

Active toolbar

In the **Images & videos** folder, you can use the active toolbar as a shortcut to select different tasks. The active toolbar is available only when you have selected an image or a video clip.

In the active toolbar, scroll up or down to different items, and select them by pressing the scroll key. The available options vary depending on the view you are in and whether you have selected an image or a video clip. You can also

define whether the active toolbar is always visible on the display or activated by a keypress.

If you want the active toolbar to be visible on the display, select **Options > Show icons**.

If you want the active toolbar to be visible only when you need it, select **Options > Hide icons**. To activate the active toolbar, press .

Select from the following:

 to play the selected video clip

 to send the selected image or video clip

 /  to add or remove an image from the Print Basket. See 'Print Basket', p. 45.

 to view the images in the Print Basket

 to start a slide show of your images

 to delete the selected image or video clip

 to print the viewed image

The available options may vary depending on the view you are in.

Print Basket

You can tag images to the Print Basket, and print them later with a compatible printer or in a compatible printing

kiosk, if available. See 'Image print', p. 49. The tagged images are indicated with  in the Images & videos folder and albums.

To tag an image for later printing, select an image and **Add to Print Basket** from the active toolbar.

To view the images in the Print Basket, select **View Print Basket** from the active toolbar, or select  from the Images & videos folder (available only when you have added pictures to the Print Basket).

To remove an image from the Print Basket, select an image in the Images & videos folder or in an album, and **Remove from Print Basket** from the active toolbar.

Albums

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

To add a picture or a video clip to an album in the 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. You can also create a new album.

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

To create a new album, in the albums list view, select **Options > New album**.

Edit images

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

Select **Options > Apply effect** to open a grid where you can select different edit options indicated by small icons. You can crop and rotate the image; adjust the brightness, color, contrast, and resolution; and add effects, text, clip art, or a frame to the picture.

Crop image

To crop an image, select **Options > Apply effect > Crop**. To crop the image size manually, select **Manual** or a predefined aspect ratio from the list. If you select **Manual**, a cross is displayed in the upper left corner of the image. Use the scroll key to select the area to crop, and select **Set**. Another cross is displayed 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 that 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 **⏏**.

Reduce redness

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 is displayed on the display. To resize the loop to fit the size of the eye, use the scroll key. To reduce the redness, press **⏏**.

Useful shortcuts

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.

Edit video clips

To edit video clips in Gallery and create custom video clips, scroll to a video clip, and select **Options > Edit > Merge**, **Change sound**, **Add text**, or **Cut**. See 'Gallery', p. 44.

The video editor supports video file formats 3gp and .mp4, and sound file formats .aac, .amr, .mp3 and .wav. It does not necessarily support all features of a file format or all the variations of file formats.

The custom video clips are automatically saved in the **Images & videos** in Gallery. The clips are saved in the mass memory.

Add images, video, sound, and text

You can add images, video clips, and text to a video clip selected in Gallery to create custom video clips.

To combine an image or a video clip with the selected video clip, in the **Images & videos** folder, select **Options > Edit > Merge > Image or Video clip**. Select the desired file.

To add a new sound clip and replace the original sound clip in the video clip, select **Options > Edit > Change sound** and a sound clip.

To add text to the beginning or the end of the video clip, select **Options > Edit > Add text**, enter the text you want to add, and select **OK**. Then select where you want to add the text: **Beginning** or **End**.

Cut video clip

You can trim the video clip, and add start and end marks to exclude parts from the video clip. In the **Images & videos** folder, select **Options > Edit > Cut**.

To play the selected video clip from the start, select **Options > Play**.

To select which parts of the video clip are included in the custom video clip, and define the start and end points for them, scroll to the desired point on the video, and select **Options > Start mark** or **End mark**. To edit the start or end point of the selected part, scroll to the desired mark, and press the scroll key. You can then move the selected mark forwards or backwards on the timeline.

To remove all the marks, select **Options > Remove > All marks**.

To preview the video clip, select **Options > Play marked section**. To move on the timeline, scroll left or right.

To stop playing the video clip, select **Pause**. To continue playing the clip, select **Options > Play**. To return back to the cut video view, select **Back**.

To save the changes, and return to **Gallery**, select **Done**.

Edit video clips to send

To send a video clip, select **Options > Send > Via multimedia**, **Via e-mail**, **Via Bluetooth**, or **Post to web**. Contact your network service provider for details of the maximum multimedia message size that you can send.

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. 73. You can also transfer your videos to a compatible PC using Bluetooth connectivity, or a compatible USB data cable.

You can also cut the video clip for sending it in a multimedia message. In the video editor main view, select **Options > Movie > Edit for MMS**. The duration and size of the video clip is shown on the display. To edit the size of the clip, scroll left or right. When the clip is the proper size to send, select **Options > Send via MMS**.

If your video clip is in .mp4 format, you may not be able to send it in a multimedia message. To change the file format of the clip, scroll to it in **Gallery**, and select **Options > Edit > Options > Settings > Resolution > MMS compatible**. Return to the video editor main view, select **Options > Movie > Save**, and enter a name for the clip. The video clip is saved in .3gpp format and can be sent in a multimedia message. The file format of the original video clip does not change.

Slide show

In the active toolbar, select **Start slide show** (🖼️) to view a slide show of images in full screen. The slide show starts from the selected file. Select from the following:

Pause—to pause the slide show

Continue—to resume the slide show, if paused

End—to close the slide show

To browse the images, press ⏪ (previous) or ⏩ (next) (available only when **Zoom and pan** is off).

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

To make the slide show move smoothly from one slide to another, and let the gallery randomly zoom in and out in the images, select **Zoom and pan**.

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

Music—Select **On** or **Off**.

Song—Select a music file from the list.

To decrease or increase the volume, use the volume key in your device.

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 scalable vector graphics, select **Presentations**, scroll to an image, and select **Options > Play**. To pause playing, select **Options > Pause**.

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

To rotate the image 90 degrees clockwise or counter-clockwise, press **1** or **3**. To rotate the image 45 degrees, press **7** or **9**.

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

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 compatible USB data cable, wireless LAN, or Bluetooth connectivity.

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

To print to a printer compatible with PictBridge, connect the data cable before you select the print option, and check that the data cable mode is set to **Image print** or **Ask on connection**. See 'USB', p. 76.

Printer selection

When you use **Image print** for the first time, a list of available compatible 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 a compatible Nokia connectivity 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

After you select the printer, the selected images are displayed using predefined layouts. To change the layout, press  or  to browse through the available layouts

for the selected printer. If the images do not fit on a single page, press  or  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.

Print online

With **Print online**, you can order prints of images online directly to your home, or to a store where you can pick them up. You can also order different products with the selected image, such as mugs or mouse pads. The available products depend on the service provider.

To use **Print online**, you must have at least one printing service configuration file installed. The files can be obtained from printing service providers that support **Print online**.

For more information on the application, see www.nseries.com/support or your local Nokia website.

Share online

With **Share online**, you can share images and video clips in compatible online albums, weblogs, or in other compatible online sharing services on the web. You can upload content, save unfinished posts as drafts and continue later, and view the content of the albums. The supported content types may vary depending on the service provider.

To use **Share online**, you must subscribe to the service with an online image sharing service provider, and create a new account. You can usually subscribe to the service on the web page of the service provider. Contact your service provider for details on subscribing to the service. For more information on compatible service providers, see the product support pages at www.nseries.com/support or your local Nokia website.

For more information on the application, see www.nseries.com/support or your local Nokia website.

Home network with Gallery

With UPnP architecture and wireless local area network (WLAN) you can create a home network of compatible devices. Home network enables you to view content stored in your Nokia N81 remotely on a compatible device. You can also copy files between your Nokia N81 and a

compatible UPnP enabled device. For more information, see 'Home network', p.77 and 'Home network with music player', p. 21.

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 > Show via home network**.
- 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.

To print images saved in **Gallery** through **Home media** with a UPnP compatible printer, select the print option in **Gallery**. See 'Image print', p. 49. 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 > Move and copy > Copy to**

home network or Move to home net.. 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 memory or Mass memory. Content sharing does not have to be switched on.

Camera

Your Nokia N81 has two cameras, a high resolution camera on the back of the device (the main camera in landscape mode) and a lower resolution camera on the front (the secondary camera in portrait mode). You can use both cameras to take still pictures and record videos.

Your device supports an image capture resolution of 1600x1200 pixels using the main camera. The image resolution in this guide may appear different.

The images and video clips are automatically saved in the **Images & vids.** folder in **Gallery**. The cameras produce .jpeg images. Video clips are recorded in the MPEG-4 file format with the .mp4 file extension, or in the 3GPP file format with the .3gp file extension (sharing quality). See 'Video settings', p. 61.

You can send images and video clips in a multimedia message, as an e-mail attachment, or by using Bluetooth connectivity or wireless LAN connection. You can also upload them to your compatible online album. See 'Share online', p. 51.

Take pictures

When taking a picture, note the following:

- Use both hands to keep the camera still.
- The quality of a digitally 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 .

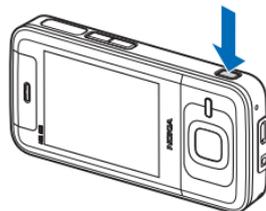
To take a picture, do the following:

- 1 To activate the main camera, press and hold . If the camera is in **Video mode**, select **Switch to image mode** from the active toolbar.
- 2 To take a picture, in the main camera, press .

Do not move the device before the image is saved.

To zoom in or out, use the volume key in your device.

To make lighting and color adjustments before taking a picture, use the scroll key to scroll through the active toolbar. See 'Adjust color and lighting', p. 56. Saving the captured image may take longer if you change the zoom, lighting, or color settings.



To activate the front camera, select **Options > Use secondary camera**. To take a picture, press . To zoom in or out, press or .

To leave the camera open in the background, and use other applications, press . To return to the camera, press and hold .



Still image camera indicators

The still image camera viewfinder displays the following:

- 1 The current capture mode indicator.
- 2 The active toolbar. See 'Active toolbar', p. 54.
- 3 Battery charge level indicator.
- 4 The image resolution indicator indicates whether the quality of the image is Print 2M – Large, Print 1M – Medium, or MMS 0.3M – Small.
- 5 The image counter displays the estimated number of images you can capture using the current image quality



setting and memory in use (the counter is not displayed during image capture).

- 6 The device memory () and mass memory () indicators shows where images are saved.

Active toolbar

The active toolbar provides you with shortcuts to different items and settings before and after taking a picture or recording a video. Scroll to items, and select them by pressing . You can also define when the active toolbar is visible on the display.

If you want the active toolbar to be visible before and after taking a picture or recording a video, select **Options > Show icons**. To view the active toolbar only when you need it, select **Options > Hide icons**. Only the capture mode and battery level indicators are shown on the display. To activate the active toolbar, press . The toolbar is visible for 5 seconds.

Before taking a picture or recording a video, in the active toolbar, select from the following:

- to select the scene
- to select the flash mode (images only)
- to activate the self-timer (images only). See 'You in the picture—self-timer', p. 58.

 to activate the sequence mode (images only). See 'Take pictures in a sequence', p. 57.

 to select a color effect

 to show or hide the viewfinder grid (images only)

 to adjust white balance

 to adjust the exposure compensation (images only)

 to adjust light sensitivity (images only)

 to switch between the video and image modes

The icons change to reflect the current status of the setting.

The available options vary depending on the capture mode and view you are in.

See also active toolbar options in 'After taking a picture', p. 55, 'After recording a video', p. 60, and 'Active toolbar', p. 45 in Gallery.

After taking a picture

After you take the picture, select the following from the active toolbar (available only if **Show captured image** is set to **On** in still image camera settings):

- If you do not want to keep the image, select **Delete**.
- To send the image, press the call key, or select **Send**. For more information, see 'Messaging', p. 34, 'Bluetooth

connectivity', p. 72, and 'Share online', p. 51. This option is not available during an active call. You can also send the image to a call recipient during an active call. Select **Send to caller** (only available during an active call).

- To tag images to the Print Basket for later printing, select **Add to Print Basket**.
- To send the picture to a compatible online album, select **Post to** (available only if you have set up an account for a compatible online album. See 'Share online', p. 51).

To use the picture as wallpaper in the active standby, select **Options > Set as wallpaper**.

To set the image as a call image for a contact, select **Options > Set as contact call img..**

Still image camera settings

There are two kinds of settings for the still image camera: active toolbar settings and main settings. To use active toolbar settings, see 'Adjust color and lighting', p. 56. The active toolbar 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 2M – Large** (1600x1200 resolution), **Print 1M – Medium** (1152x864 resolution) or **MMS 0.3M – Small** (640x480 resolution). If you want to print the image, select **Print 2M – Large** or **Print 1M – Medium**. To send the image through MMS, select **MMS 0.3M – Small**.

These resolutions are only available in the main camera.

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

Show captured image—Select **On** if you want to see the captured image after it is taken, or **Off** if you want to continue taking pictures immediately.

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

Extended digital zoom (main camera only)—**On (continuous)** allows the zoom increments to be smooth and continuous between digital and extended digital zoom, **On (paused)** allows the zoom increments to pause at the digital and extended digital step point, and **Off** allows a limited amount of zoom while retaining the image resolution.

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

Memory in use—Select where to store your images.

Restore camera settings—Select **Yes** to return the default values to the camera settings.

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 for the still image camera: **Automatic** (⚡), **R. eye redu.** (👁), **On** (🔦), and **Off** (🚫).

To change the flash mode, in the active toolbar, select the desired flash mode.

Adjust color and lighting

To enable the camera to reproduce colors and lighting more accurately, or to add effects to your pictures or videos, use the scroll key to scroll through the active toolbar, and select from the following options:

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

Exposure compensation (images only)—If you are shooting a dark subject against very light background such

as snow, adjust the exposure to +1 or even +2 to compensate the background brightness. For light subjects against dark background, use -1 or -2.

Flash mode—Select the desired flash mode. See 'Flash', p. 56.

Colour tone—Select a color effect from the list.

Light sensitivity (images only)—Increase the light sensitivity in low light to decrease the risk of getting unsharp or too dark images. Higher sensitivity may increase the graininess of the images.

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 return to the default settings when you close the camera.

If you select a new scene, the color and lighting settings are replaced by the selected scene. See 'Scenes', p. 57. You can change the setup settings after selecting a scene if needed.

Scenes

A scene helps you to find the right color and lighting settings for the current environment. The settings of each scene have been set according to a certain style or environment.

Scenes are only available in the main camera.

In the active toolbar, select from the following options:

Video scenes

Auto () (default) and Night ()

Image scenes

Auto () (default), User defined () , Portrait () , Landscape () , Night () , and Night portrait () .

When you take pictures, the default scene is Auto.

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

Take pictures in a sequence

The sequence mode is available only in the main camera.

To set the camera to take six pictures or more in a sequence (if enough memory is available), in the active toolbar, select **Sequence mode > Burst** to take six pictures, or the time interval for taking pictures. The number of pictures taken depends on the available memory.

To take six pictures, press . To stop taking pictures, press **Cancel**. To take more than six pictures, press and hold . To stop taking pictures, release it. The number of pictures taken depends on the available memory.

To use a time interval between taking pictures, select **Sequence mode** and a time interval. To start taking pictures, press . To stop taking pictures before the time ends, press  again.

After you take the pictures, they are shown in a grid on the display. To view a picture, press  to open it. If you used a time period for taking pictures, the last taken picture is shown on the display.

You can also use the sequence mode with the self-timer. When using the self-timer, the maximum number of pictures is six pictures.

To return to the sequence mode viewfinder, press .

To switch off the sequence mode, in the active toolbar, select **Sequence mode > Single shot**.

You in the picture—self-timer

The 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, in the active toolbar, select **Self timer > 2 seconds, 10 seconds, or 20 seconds**. To activate the self-timer, select **Activate**. The device beeps when the timer is running. The camera takes the picture after the selected delay elapses.

To switch off **Self timer**, in the active toolbar, select **Self timer > Off**.

 **Tip!** In the active toolbar, select **Self timer > 2 seconds** to keep your hand steady when taking a picture.

Tips on taking good photographs

Picture quality

Use the appropriate picture quality. The camera has three picture quality modes (**Print 2M – Large, Print 1M – Medium, or MMS 0.3M – Small**). Use the **High** setting to make sure that the camera produces the best picture quality available. Note however, that better picture quality requires more storage space. For MMS and e-mail attachments it may be necessary to use **MMS 0.3M –**

Small setting. You can define the quality in **Options > Settings**.

Background

Use a simple background. For portraits and other pictures with people, avoid having your subject in front of a cluttered, complex background that may distract attention from the subject. Move the camera, or the subject, when these conditions cannot be met. Move the camera closer to the object to take clearer portraits.

Depth

When shooting landscapes and sceneries, add depth to your pictures by placing objects in the foreground. If the foreground object is too close to the camera, it may be blurred.

Lighting conditions

Changing the source, amount, and direction of light can change photographs dramatically. Here are some typical lighting conditions:

- **Light source behind the subject.** Avoid placing your subject in front of a strong light source. If the light source is behind the subject or visible in the display, the resulting picture may have weak contrast, may be too dark, and may contain unwanted light effects.

- **Sidelit subject.** Strong side light gives a dramatic effect but may be too harsh, resulting in too much contrast.
- **Light source in front of the subject.** Harsh sunlight may cause the subjects to squint their eyes. The contrast may also be too high.
- **Optimal lighting** is found in situations where there is plenty of diffused, soft light available, for example, on a bright, partially cloudy day or on a sunny day in the shadow of trees.

Record videos

- 1 To activate the main camera, press and hold . If the camera is in the **Image mode**, select **Switch to video mode** from the active toolbar.
- 2 Press  to start recording. In the portrait mode, use the scroll key for recording. The record icon  is shown and a tone sounds, indicating that recording has started.
- 3 Select **Stop** to stop recording. The video clip is automatically saved to the **Images & vids.** folder of **Gallery**. See 'Gallery', p. 44. The maximum length of the video clip depends on the available memory.

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. Select **Continue** to resume recording.

To zoom in or out of the subject, press the volume key on the side of the device. In the portrait mode, to zoom in or out, press  or .

To make lighting and color adjustments before recording a video, use the scroll key to scroll through the active toolbar. See 'Adjust color and lighting', p. 56 and 'Scenes', p. 57.

To activate the front camera, select **Options > Use secondary camera**.

Video capture indicators

The video viewfinder displays the following:

- 1 The current capture mode indicator.
- 2 The audio mute on indicator.
- 3 The active toolbar, which you can scroll through before recording to select different items and settings (the toolbar is not displayed during recording). See 'Active toolbar', p. 54.



- 4 Battery charge level indicator.
- 5 The video quality indicator indicates whether the quality of the video is **High**, **Normal**, or **Sharing**.
- 6 The video clip file type.
- 7 The total available video recording time. When you are recording, the current video length indicator also shows the elapsed time and time remaining.
- 8 The device memory () and mass memory () indicators show where videos are saved.

To display all viewfinder indicators, select **Options > Show icons**. Select **Hide icons** to display only the video status indicators, and during the recording, the available record time, zoom bar when zooming, and the selection keys.

After recording a video

After you record a video clip, select the following from the active toolbar (available only if **Show captured video** is set to **On** in Video settings):

- To immediately play the video clip you just recorded, select **Play**.
- If you do not want to keep the video, select **Delete**.
- To send the video clip using multimedia message, e-mail, or Bluetooth connectivity, press the call key, or select **Send**. For more information, see 'Messaging', p. 34, 'Bluetooth connectivity', p. 72, and 'Share online', p. 51. This option is not available during an active call. You may not be able to send video clips

saved in the .mp4 file format in a multimedia message. You can also send the video clip to a call recipient during an active call. Select **Send to caller**.

- To upload the video clip to a compatible online album, select **Post** to (available only if you have set up an account for a compatible online album. See 'Share online', p. 51).

Video settings

There are two kinds of settings for the video recorder: **Video setup** and **main settings**. To adjust **Video setup** settings, see 'Adjust color and lighting', p. 56. 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:

Video quality—Set the quality of the video clip to **High** (best quality for long term usage and playback on a compatible TV or PC and handset), **Normal** (standard quality for playback through your handset), or **Sharing** (limited video clip size to send using a multimedia message). If you want to view the video on a compatible TV or PC, select **High**, which has QVGA resolution (320x240) and the .mp4 file format. To send the video clip through MMS, select **Sharing** (QCIF resolution, .3gp file format). The size of the video clip recorded with **Sharing** 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.

Audio recording—Select **Mute** if you do not want to record sound.

Add to album—Select whether you want to add 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 **Play** from the active toolbar (main camera) or **Options > Play** (secondary camera) to view the video clip.

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

Memory in use—Define the default memory store.

Restore camera settings—Select **Yes** to return the default values to the camera settings.

Web

Press **⌘**, and select **Web** (network service).

 **Shortcut:** To start the **Web** browser, press and hold **0** in the standby mode.

With the **Web** browser, you can view hypertext markup language (HTML) web pages on the internet as originally designed. You can also browse web pages that use extensible hypertext markup language (XHTML), or the wireless markup language (WML), and that are designed specifically for mobile devices.

With **Web**, you can zoom in and out on a page, use **Mini Map** and **Page Overview** to navigate on pages, read web feeds and blogs, bookmark web pages, and download content.

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

To use the **Web** browser, you need an access point to connect to the internet. See 'Access points', p. 121.

Browse the web

To browse a web page, in the bookmarks view, select a bookmark, or enter the address in the field (). Then press **0**.

To open links and make selections, press **0**.

To enter a new web page address you want to visit, select **Options > Go to web address**.

 **Tip!** To visit a web page saved as a bookmark in the bookmarks view, while browsing, press **1** and select a bookmark.

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

To save the web address of the current page as a bookmark, select **Options > Save as bookmark**.

To use visual history to view snapshots of the pages you have visited during the current browsing session, select **Back** (available if **History list** is set on in the browser settings and the current page is not the first page you visit). To go to a previously visited page, select the page.

To save a page while browsing, select **Options > Tools > Save page**.

You can save pages and browse them later, when offline. You can also group these saved pages into folders. To access the pages you have saved, select **Options > Bookmarks> Saved pages**.

To open a sublist of commands or actions for the currently open page, select **Options > Service options** (if supported by the web page).

Shortcuts while browsing

- Press **1** to open your bookmarks.
- Press **2** to search for keywords in the current page.
- Press **3** to return to the previous page.
- Press **5** to list all open windows.
- Press **C** to close the current window if two or more windows are open.
- Press **8** to show the page overview of the current page. Press **8** again to zoom in and view the desired section of the page.
- Press **9** to enter a new web address.
- Press **0** to go to the start page.
- Press ***** or **#** to zoom the page in or out.

Text search

To search for keywords within the current web page, select **Options > Find > Text**, and enter a keyword. To go to the previous match, press . To go to the next match, press .

 **Tip!** You can also search for keywords within the page by pressing **2** ..

Toolbar in the browser

With the toolbar, you can select the most frequently used features in the browser. To open the toolbar, press and hold  on an empty spot on a web page. To move within the toolbar, press  or . To select a feature, press .

In the toolbar, select from the following:

- **Frequently used links** to view a list of the web addresses you visit frequently
- **Page overview** to view the overview of the current web page
- **Find** to search for keywords within the current page
- **Reload** to refresh the page
- **Subscribe to web feeds** (if available) to view a list of available web feeds on the current web page, and subscribe to a web feed

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 of charge, 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 trusted sources, such as applications that are Symbian Signed or have passed the Java Verified™ testing.

- 1 To download the item, select the link.
- 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**.

When you start a download, a list of ongoing and completed downloads from the current browsing session is displayed. To view the list, select **Options > Downloads**. In the list, scroll to an item, and select **Options** to cancel ongoing downloads, or open, save, or delete completed downloads.

Mini Map

Mini Map helps you to navigate on web pages that contain a large amount of information. When **Mini Map** is set on in the browser settings and you scroll through a large web page, **Mini Map** opens and shows an overview of the web page you browse. To move on **Mini Map**, press , , , or . When you find the desired location, stop scrolling; **Mini Map** disappears, leaving you to the selected spot.

To set **Mini Map** on, select **Options > Settings > General > Mini Map > On**.

Page overview

When you are browsing a web page that contains a large amount of information, you can use **Page Overview** to view what kind of information the page contains.

To show the page overview of the current page, press **8**. To find the desired spot on the page, press , , , or . Press **8** again to zoom in and view the desired section of the page.

Web feeds and blogs

Web feeds are xml files on web pages that are used by the weblog community and news organizations to share the latest headlines or text, for example, news feeds. Blogs or weblogs are web diaries. Most of the web feeds use RSS and ATOM technologies. It is common to find web feeds on web, blog, and wiki pages.

The **Web** browser automatically detects if a web page contains web feeds. To subscribe to a web feed, select **Options > Subscribe**. To view the web feeds you have subscribed to, in the bookmarks view, select **Web feeds**.

To update a web feed, select it, and select **Options > Refresh**.

To define how the web feeds are updated, select **Options > Settings > Web feeds**. See 'Settings', p. 66.

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.

Security certificates may be required for some services, such as banking services. 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. For more information, contact your service provider. See also 'Certificate management', p. 116 for more information on the certificates and certificate details.

Bookmarks view

The bookmarks view allows you to select web addresses from a list, or from a collection of bookmarks in the **Auto. Bookmarks** folder. You can also enter the URL address of the web page you want to visit directly into the field (.

 indicates the starting page defined for the default access point.

You can save URL addresses as bookmarks while browsing on the internet. You can also save addresses received in messages to your bookmarks, and send saved bookmarks.

To open the bookmarks view while browsing, press **1** , or select **Options > Bookmarks**.

To edit the details of a bookmark, such as the title, select **Options > Bookmark manager > Edit**.

In the bookmarks view, you can also enter other browser folders. The **Web** browser allows you to save web pages during browsing. In the **Saved pages** folder, you can view the content of the pages you have saved offline.

The **Web** browser also keeps track of the web pages you visit during browsing. In the **Auto. Bookmarks** folder, you can view the list of visited web pages.

In **Web Feeds**, you can view saved links to web feeds and blogs you have subscribed to. Web feeds are commonly found on major news organization web pages, personal weblogs, online communities that offer latest headlines, and article summaries. Web feeds use RSS and ATOM technologies.

End connection

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

Pressing the end key does not end the connection but takes the browser to the background.

To delete the information the network server collects about your visits to various web pages, select **Options > Clear privacy data > Delete cookies**.

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 > Clear privacy data > Clear cache**.

Settings

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

General settings

Access point—Change the default access point. See 'Connection', p. 120. Some or all access points may be preset for your device by your service provider, and you may not be able to change, create, edit, or remove them.

Homepage—Define the home page.

Mini Map—Set **Mini Map** on or off. See 'Mini Map', p. 64.

History list—While browsing, to select **Back** to see a list of the pages you have visited during the current browsing session, set **History list** on.

Security warnings—Hide or show security notifications.

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

Page settings

Load content—Select whether you want to load images and other objects while browsing. If you select **Text only**, to load images or objects later during browsing, select **Options > Tools > Load images**.

Screen size—Select between the **Full screen view** and the normal view with the **Options** list.

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

Font size—Define the font size that is used for web pages.

Block pop-ups—Allow or block automatic opening of different pop-ups while browsing.

Automatic reload—If you want the web pages to be refreshed automatically while browsing, select **On**.

Privacy settings

Auto. bookmarks—Enable or disable automatic bookmark collecting. If you want to continue saving the addresses of the visited web pages into the **Auto. Bookmarks** folder, but hide the folder from the bookmarks view, select **Hide folder**.

Form data saving—If you do not want the data you enter into different forms on a web page to be saved and used the next time you open the page, select **Off**.

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

Web feeds settings

Automatic updates—Define whether you want the web feeds to be updated automatically or not, how often you want to update them and which connection to use. Setting the application to retrieve web feeds automatically may involve the transmission of large amounts of data through your service provider's network. Contact your service provider for information about data transmission charges.

Acc. point for auto-update (only available when **Automatic updates** is on)—Change the access point for auto-update.

Tools

File manager

To browse files and folders, press , and select **Tools > File mgr.** The device memory view () opens. Press ) to open the mass memory view ()

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

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

Many features of the device use memory to store data. The device notifies you if the memory is low.

To free device memory, transfer data to a compatible PC.

To remove data to free memory, use **File manager** to delete files you no longer need, or go to the respective application. For example, you can remove the following:

- Messages in the folders in **Messaging** and retrieved e-mail messages from the mailbox

- Saved web pages
- Contact information
- Calendar notes
- Applications shown in **App. manager** that you do not need

Mass memory tool

To monitor the amount of used and free space in the device mass memory, press , and select **Tools > Utilities > Memory**. To see how much disc space the different applications and data types use, select **Options > Memory details**.

To change the name of the mass memory, select **Options > Mass memory name**.

To back up information from the device memory to the mass memory, select **Options > Back up phone memory**.

To restore information from the mass memory to the device memory, select **Options > Rest. from mass mem.**

Format mass memory

When mass memory is reformatted, all data in the memory is permanently lost. Back up data you want to keep before

formatting the mass memory. You can use Nokia Nseries PC Suite to back up data to a compatible PC. Digital rights management technologies (DRM) may prevent some back-up data from being restored. Contact your service provider for more information about DRM used for your content. See also 'Digital rights management', p. 109.

To format mass memory, select **Options > Format mass memory**. Select **Yes** to confirm.

Formatting does not guarantee that all confidential data stored in the device mass memory is permanently destroyed. Standard formatting only marks the formatted area as available space and deletes the address to find the files again. The recovery of formatted or even overwritten data may still be possible with special recovery tools and software.

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. 90.

To activate enhanced voice commands for starting applications and profiles, you must open the **Voice comm.** application and its **Profiles** folder. Press , and select **Tools > Utilities > Voice comm. > Profiles**; the device creates voice tags for the applications and profiles. To use enhanced voice commands, press and hold the right

selection key 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 **Synthesiser > Off**. To reset voice recognition learning, for example, when the main user of the device has changed, select **Remove voice adapts..**

Connections

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 with other compatible UPnP devices through wireless LAN, see 'Home network with Gallery', p. 51 and 'Home network with music player', p. 21.

To use wireless LAN, a wireless LAN must be available in the location and your device must be connected to the wireless LAN.

Some places, like France, have restrictions on the use of wireless LAN. Check with your local authorities for more information.

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
- Wired equivalent privacy (WEP) with keys up to 128 bits, Wi-Fi protected access (WPA), and 802.1x

encryption methods. These functions can be used only if they are supported by the network.

Wireless LAN connections

To use wireless LAN, you must create an internet access point (IAP) in a wireless LAN. Use the access point for applications that need to connect to the internet. See 'Wireless LAN access points', p. 71.

 **Important:** Always enable one of the available encryption methods to increase the security of your wireless LAN connection. Using encryption reduces the risk of unauthorized access to your data.

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 close the last application using the connection. To end all the connections simultaneously, see 'Connection manager', p. 75.

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 internet access point.

When the device is in 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.

 **Tip!** To check the unique media access control (MAC) address that identifies your device, enter ***#62209526#** in the standby mode.

WLAN wizard

The WLAN wizard helps you to connect to a wireless LAN and manage your wireless LAN connections.

The WLAN wizard shows the status of your wireless LAN connections in the active standby mode. To view the available options, scroll to the row showing the status, and press .

If the search finds wireless LANs, and for example, **WLAN network found** is displayed, to automatically create an IAP and start the web browser using this IAP, select the status, **Start Web browsing**, and the network.

If you select a secured wireless LAN network, you are asked to enter the relevant passcodes. To connect to a hidden network, you must enter the correct network name (service set identifier, SSID). To create a new access point for a hidden WLAN, select **New WLAN**. After entering the required data, the connection is automatically tested.

If you are connected to a wireless LAN, the IAP name is displayed. To start the web browser using this IAP, select the status and **Continue Web browsing**. To end the connection in the wireless LAN, select the status and **Disconnect WLAN**.

If wireless LAN scanning is off and you are not connected to any wireless LAN, **WLAN scanning off** is displayed. To set scanning on and search for available wireless LANs, scroll to the row showing the status, and press .

To start a search for available wireless LANs, select a status and **Search for WLAN**. To set wireless LAN scanning off, select a status and **WLAN scanning off**.

To access the WLAN wizard in the menu, press , and select **Tools > WLAN wiz..**

Wireless LAN access points

To search for wireless LANs available within range, press , and select **Tools > WLAN wiz..**

Select **Options** and from the following:

Filter WLAN networks—to filter out wireless LANs in the list of found networks. The selected networks are filtered out the next time the application searches for wireless LANs.

Details—to view the details of a network shown in the list. If you select an active connection, the connection details are displayed.

Define access point—to create an IAP in a wireless LAN

Edit access point—to edit the details of an existing IAP

You can also use **Conn. mgr.** to create IAPs.

Operating modes

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

The infrastructure operating mode allows two kinds of communication: wireless devices are connected to each other through a wireless LAN access point device, or wireless devices are connected to a wired LAN through a wireless LAN access point device.

In the ad hoc operating mode, devices can send and receive data directly with each other. To create an internet access point for an ad hoc network, see 'Access points', p. 121.

Bluetooth connectivity

You can connect wirelessly to other compatible devices with Bluetooth connectivity. 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. 49.

The two devices 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 2.0 supporting the following profiles: Advanced Audio Distribution Profile, Basic Imaging Profile, Dial-up Networking Profile, File Transfer Profile, Generic Object Exchange Profile, Generic Access Profile, Hands-Free Profile, Headset Profile, Object Push Profile, and Serial Port Profile. To ensure interoperability between other devices supporting Bluetooth connectivity, use Nokia approved enhancements for this model. Check with the manufacturers of other devices to determine their compatibility with this device.

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

Features using Bluetooth connectivity, 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 'Phone and SIM card', p. 114 for more information on locking the device.

Settings

Press , and select **Tools > Bluetooth**. When you open the application for the first time, you are asked to define a name for your device.

Select from the following:

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

My phone's visibility—To allow your device to be found by other devices with Bluetooth connectivity, select **Shown to all**. To set a time after which the visibility is set from shown to hidden, select **Define period**. To hide your device from other devices, select **Hidden**.

My phone's name—Edit the name shown to other devices using Bluetooth wireless technology.

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**. For more information, see 'Remote SIM mode', p. 75.

Security tips

When you are not using Bluetooth connectivity, select **Bluetooth > Off** or **My phone's visibility > Hidden**. In this way, you can better control who can find your device with Bluetooth connectivity, and connect to it.

Do not pair with or accept connection requests from an unknown device. In this way, you can better protect your device from harmful content.

Send data using Bluetooth connectivity

Several Bluetooth connections can be active at a time. For example, if you are connected to a compatible headset, you can also transfer files to another compatible device at the same time.

For Bluetooth connectivity indicators, see 'Essential indicators', p. 72.

 **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 connectivity 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. 74.
- 5 When the connection has been established, **Sending data** is shown.

 **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 pair with compatible devices and view your paired devices, 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.

- 1 To pair with a device, select **Options > New paired device**. Devices with Bluetooth connectivity within range start to appear on the display.
- 2 Select the device, and enter the passcode. The same passcode must be entered on the other device as well.

Some audio enhancements connect automatically to your device after pairing. Otherwise, scroll to the enhancement, and select **Options > Connect to audio device**.

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 authorised—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 unauthorised—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**.

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 **Messaging**. Messages

received through Bluetooth connectivity are indicated by . See 'Inbox—receive messages', p. 36.

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. See 'Settings', p. 73. 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. 74. Activate the remote SIM mode from the other device.

When remote SIM mode is on in your device, **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.

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 lock code to unlock it first.

To leave the remote SIM mode, press the power key, and select **Exit remote SIM mode**.

Connection manager

Data connections

Press , and select **Tools > Connectivity > Conn. mgr. > Active data connections**. In the active connections view, you can see the open data connections: data calls () , high-speed data calls () , packet data connections () , 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

To search for wireless LANs available within range, press , and select **Tools > Connectivity > Conn. mgr. > Available WLAN networks**.

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**.

USB

Press , and select **Tools > Connectivity > USB**.

To have the device ask the purpose of the USB cable connection each time the cable is connected, select **Ask on connection > Yes**.

If **Ask on connection** is set to off or you want to change the mode during an active connection, select **USB mode** and from the following:

Media player—to synchronize music with Windows Media Player. See 'Music transfer with Windows Media Player', p. 22.

PC Suite—to use Nokia PC applications such as Nokia Nseries PC Suite, Nokia Lifeblog, and Nokia Software Updater

Data transfer—to transfer data between your device and a compatible PC

Image print—to print images on a compatible printer. See 'Image print', p. 49.

PC connections

You can use your device with a variety of compatible PC connectivity and data communications applications. With Nokia Nseries 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.

Device manager

Software updates

You may view and update the current software version of your device, and check the date of a possible previous update (network service).

Press , and select **Tools > Utilities > Device mgr..**

To check whether software updates are available, select **Options > Check for updates**. Select an internet access point when asked.

If an update is available, information about it is displayed. Select **Accept** to accept to download the update or **Cancel** to cancel the download. The download may take several minutes. You can use your device during the download.

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

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



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

When the download is complete, select **Yes** and then **Accept** to install the update, or **No** to install it later by using **Options > Install update**. The installation may take several minutes.

The device updates the software and restarts. To complete the update, select **OK**. When asked, select an internet access point. Your device sends the software update status to the server.

To view the server profile settings used for software updates, select **Options > Settings**.

Server profiles

Press , select **Tools > Utilities > Device mgr.**, and press . You may receive server profiles and different configuration settings from your service providers and company information management department. These configuration settings may include connection and other settings used by different applications in your device.

Scroll to a server profile, and select **Options** and from the following:

Start configuration—to connect to the server and receive configuration settings for your device

New server profile—to create a server profile

To delete a server profile, scroll to it, and press .

Home network

Your device is compatible with UPnP architecture. 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 N81, a compatible PC, a compatible printer, and a compatible sound system or TV, or a sound system or TV equipped with a compatible wireless multimedia receiver.

Using the wireless LAN function of the Nokia N81 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.

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 and encryption enabled.

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 Tools > Connectivity > Home media > Settings. You can also use the home network to view, play, copy, or print compatible media files from Gallery. See 'View and share media files', p. 79.

 **Important:** Always enable one of the available encryption methods to increase the security of your wireless LAN connection. Using encryption reduces the risk of unauthorized access to your data.

Your device is connected to the home network only if you accept a connection request from another compatible device, or in Gallery, select the option to view, play, print, or copy media files on your Nokia N81.

Important security information

When you configure your wireless LAN home network, enable an encryption method on your access point device, then on the other 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 device, see 'Access points', p. 121.

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 N81 files with other devices, or do not share any private media files. To change sharing settings, see 'Home media settings', p. 78.

Home media settings

To share media files with other compatible UPnP devices through wireless LAN, you must create and configure your

wireless LAN home internet access point, then configure the **Home media** application. See 'Wireless LAN', p. 70 and the wireless LAN settings in 'Access points', p. 121.

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

When you access the home media application for the first time, the setup wizard opens, and helps you to define the home media settings for your device. To use the setup wizard later, in the home network main view, select **Options > Run wizard**, and follow the instructions on the display.

To connect a compatible PC to the home network, on the PC, you must install the related software from the DVD-ROM supplied with your device.

Configure settings

To configure the home media application, select **Tools > Connectivity > Home media > Settings** and from the following:

Home access point—Select **Always ask** if you want the device to ask for the home access point every time you connect to the home network, **Create new** to define a new access point that is used automatically when you use **Home media**, or **None**. If your home network does not have wireless LAN security settings enabled, you 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. 121.

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

Set sharing on and define content

Select **Tools > Connectivity > Home media > Share content**.

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 you have selected for sharing in the **Images & video** and **Music** folders.

Images & video and **Music**—Select media files for sharing with other devices, or view the sharing status of **Images & video** and **Music**. To update the content of the folders, select **Options > Refresh content**.

View and share media files

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.

For more information, see 'Home network with Gallery', p. 51 and 'Home network with music player', p. 21.

Wireless Keyboard

To set up a Nokia Wireless Keyboard or other compatible wireless keyboard supporting the Bluetooth Human Interface Devices (HID) profile for use with your device, use the **Wireless keybd.** application. The keyboard enables you to enter text in comfort, using the full QWERTY layout, for text messages, e-mail, and calendar entries.

- 1 Activate Bluetooth connectivity on your device.
- 2 Switch on the keyboard.
- 3 Press , and select **Tools > Connectivity > Wireless keybd.**
- 4 Select **Options > Find keyboard** to start searching for devices with Bluetooth connectivity.
- 5 Select the keyboard from the list, and press  to start the connection.
- 6 To pair the keyboard with your device, enter a passcode of your choice (1 to 9 digits) on the device and the same passcode on your keyboard.

To enter the digits of the passcode, you may need to press the **Fn** key first.

- 7 If you are asked for a keyboard layout, select it from a list on your device.
- 8 When the name of the keyboard appears, its status changes to **Keyboard connected**, and the green indicator of your keyboard blinks slowly; the keyboard is ready for use.

For details on the operation and maintenance of your keyboard, see its user guide.

Synchronization

Sync enables you to synchronize your notes, calendar, text messages, or contacts with various compatible applications on a compatible computer or on the internet.

You may receive synchronization settings in a special message. See 'Data and settings', p. 37.

In the **Sync** main view, you can see the different synchronization profiles. A synchronization profile contains the necessary settings to synchronize data in your device with a remote database on a server or compatible device.

- 1 Press , and select **Tools > Sync**.

- 2 Select a synchronization profile and **Options > Synchronise**. To cancel synchronization before it finishes, select **Cancel**.

Personalize your device

To personalize your device, select from the following:

- To use the standby display for fast access to your most frequently used applications, see 'Active standby', p. 84.
- To change the standby mode background image, see 'Change the look of your device', p. 84.
- To customize the ringing tones, see 'Profiles—set tones', p. 82 and 'Add ringing tones for contacts', p. 33.
- 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. 113.
- To change the clock shown in the standby mode, press , and select **Applications > Clock > Options > Settings > Clock type > Analogue or Digital**.
- To change the welcome note to an image or animation, press , and select **Tools > Settings > General > Personalisation > Display > Welcome note / logo**.
- To change the look of the menu display, in the main menu, select **Options > Change Menu view**.
- 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.

- To arrange the tiles in the multimedia menu, press , and select **Options > Arrange tiles**.

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, select **Tools > Profiles**, a profile, and **Options > Activate**. You can also change the profile by pressing  in the standby mode. Scroll to the profile you want to activate, and select **OK**.

 **Tip!** To switch between the general and silent profiles, press and hold **#**.

To modify a profile, press , and select **Tools > Profiles**. Scroll to the profile, and select **Options > Personalise**. Scroll to the setting you want to change, and press  to open the choices. Tones stored on the mass memory are indicated with .

When you choose a tone from a list, the **Download sounds** link (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 spoken when your device rings, select **Options > Personalise**, 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 **X** 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.

When the **Offline** profile is active, you can use your device without a (U)SIM card.

 **Important:** In the offline profile you cannot make or receive any calls, or use other features that require cellular network coverage. Calls may still be possible to the official emergency number programmed into your device. 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, 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. 70. You can also use Bluetooth connectivity while in the **Offline** profile. See 'Bluetooth connectivity', p. 72.

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).

3-D tones

Press , and select **Tools > Utilities > 3-D tones**. With **3-D tones** you can enable three-dimensional sound effects for ringing tones. Not all ringing tones support 3-D effects.

To enable the 3-D effects, select **3-D ringing tone effects > On**.

To change the 3-D effect that is applied to the ringing tone, select **Sound trajectory** and the desired effect. To modify the effect, select from the following settings:

Trajectory speed—Scroll left or right to adjust the speed at which sound moves from one direction to another. This setting is not available for all ringing tones.

Reverberation—Select the type of echo.

Doppler effect—Select **On** to have the ringing tone sound higher when you are closer to your device, and lower when you are farther away. When you get closer to the device, the ringing tone seems to become higher, and lower when you move away from it. The Doppler effect is not available for all sound trajectories.

To listen to the ringing tone with the 3-D effect, select **Options > Play tone**.

If you enable the 3-D tones but do not select any 3-D effect, stereo widening is applied to the ringing tone.

To adjust the ringing tone volume, select **Tools > Profiles > Options > Personalise > Ringing volume**.

Change the look of your device



To change the look of the display, such as the wallpaper and icons, press , and select **Tools > Settings > General > Personalisation > Themes**.

To change the theme that is used for all the applications in your device, select **Themes > General**.

To preview a theme before activating it, select **Options > Preview**. To activate the theme, select **Options > Set**. The active theme is indicated by .

The themes on the mass memory are indicated by .

To change the layout of the main menu, select **Themes > Menu view**.

To open a browser connection and download more themes, in **General** or **Menu view**, select **Download themes** (network service).

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

To edit the wallpaper, select **Themes > Wallpaper** to change the background image on the display for the active standby mode.

Active standby

The active standby display shows status indicators, widgets, the now playing view, and search.

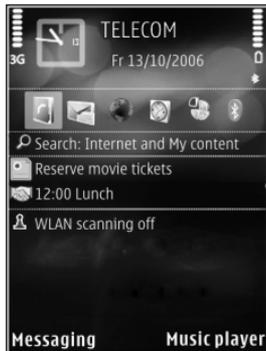
To switch the active standby on or off, press , and select **Tools > Settings > General > Personalisation > Standby mode > Active standby**.

Scroll to an application or event, and press .

The standard scroll key shortcuts available in the standby mode cannot be used when active standby is on.

To change the default applications' shortcuts, press , and select Tools > Settings > General > Personalisation > Standby mode > Active standby apps..

Some shortcuts may be fixed, and you cannot change them.



Make calls

Voice calls

- 1 In the standby mode, enter the phone number, including the area code. To remove a number, press **C**. 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 the call key to call the number.
- 3 Press the end key to end the call (or to cancel the call attempt). Pressing the end key always ends a call, even if another application is active.

To adjust the volume during a call, use the volume key on the side of your device. You can also use the scroll key. If you have set the volume to **Mute**, select **Unmute** first.

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 the call key.

You must copy the contacts from your SIM card to **Contacts** before you can make a call from **Contacts**. See 'Copy contacts', p. 32.

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

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

To send DTMF tone strings (for example, a password), select **Options > Send DTMF**. Enter the DTMF 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. You can add DTMF tones to the **Phone number** or **DTMF** fields in a contact card.

To put an active voice call on hold while answering another incoming call, select **Options > Hold**. To switch between the active and the held call, select **Options > Swap**. To connect the active and held calls and drop yourself from the line, select **Options > Transfer**.

 **Tip!** When you have only one active voice call, to put the call on hold, press the call key. To activate the call, press the call key again.

During an active call, to route the sound from the handset to the loudspeaker, select **Options > Activate**

loudspeaker. If you have attached a compatible headset with Bluetooth connectivity, to route the sound to the headset, select **Options > Activate handsfree**. To switch back to the handset, select **Options > Activate handset**.

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

To end an active call and replace it by answering the waiting call, select **Options > Replace**.

If you have several calls active, to end them all, select **Options > End all calls**.

Many of the options that you can use during a voice call are network services.

For information on conference calls and voice dialling, see the extended user guide at www.nokia.com/support or your local Nokia web site.

Internet calls

With the internet call service (network service), you can make and receive calls over the internet.

To make or receive an internet call, your device must be connected to an internet call service.

Press , and select **Tools > Connectivity > Internet tel.**

To connect to an internet call service, your device must be in the coverage of a connection network, such as a wireless LAN access point.

 **Important:** Always enable one of the available encryption methods to increase the security of your wireless LAN connection. Using encryption reduces the risk of unauthorized access to your data.

Some places, like France, have restrictions on the use of wireless LAN. Check with your local authorities for more information.

Available access points vary according to the service provider.

To connect to the internet call service, select an available connection network from the list, and press . The saved networks, which are marked with , are shown first on the list. To stop making the connection, select **Cancel**.

After you have successfully connected to a service, you can save the used wireless LAN network as a known access point.

Select **Options** and from the following:

Connect to service—to establish a connection to a service, when there is an internet call service and suitable connection network available.

Disconnect from serv.—to end to the connection to the internet call service.

Change service—to select the internet call service for outgoing calls, if the device is connected to more than one service. This option is shown only if there is more than one configured service available.

Configure service—to configure new services. This option is shown only if there are services that have not been configured.

Save network—to save the network you are currently connected to. The previously saved networks are marked with ★ on the list of networks. This option is shown only if you are connected to an unsaved wireless LAN network.

Use hidden network—to connect to an internet call service using a hidden wireless LAN network.

Refresh—to manually refresh the list of connection networks. Use this option if your wireless LAN network is not shown on the list. The list is also refreshed automatically every 15 seconds.

Settings—to change the settings.

Exit—to close the application.

The available options may vary.

Your device can be connected only to one wireless LAN access point at a time. If you use two or more internet call services, which use the same access point, your device may be connected to multiple services at the same time. The service used for outgoing internet calls is shown where the

connection networks are listed; to change it, select **Change service**.

When you are connected to an internet call service,  is shown in the standby mode.

You may have a shortcut for **Internet tel.** in the active standby, or you can add it there. By using the shortcut, you can register manually, if an internet call service and access point are available. If you are already connected to an internet call service, the device asks if you want to disconnect from the service.

To make an internet call in the standby mode, enter the phone number or internet address and press the call key. To switch between the number and letter mode, press and hold #. To end the call, press the end key.

You can also make an internet call from **Contacts** and **Log**. To make a call from **Contacts**, press  and select **Contacts**, scroll to the desired contact, and select **Options > Internet call**. To make a call from **Log**, press  and select **Tools > Log > Recent calls and Missed calls, Received calls or Dialed numbers**, scroll to the desired contact and select **Options > Internet call**.

If **Internet call** is set as the preferred call type, and your device is connected to an internet call service, calls are made as internet calls as default.

Your device supports voice calls over the internet (net calls). Your device attempts emergency calls primarily over

cellular networks. If an emergency call using cellular networks is not successful, your device attempts an emergency call through your internet call provider. Due to the established nature of cellular telephony, you should use cellular networks for emergency calls, if possible. If you have cellular network coverage available, make sure that your cellular phone is switched on and ready to make calls before you attempt an emergency call. The capability for an emergency call using internet telephony depends on the availability of a WLAN network and your internet call provider's implementation of emergency call capabilities. Contact your internet call provider to check the internet telephony emergency call capability.

Settings

To see the settings for the internet call services, press , and select **Tools > Connectivity > Internet tel. > Settings**.

To view or choose the preferred call type for outgoing calls, select **Options > Change > Default call type > Cellular or Internet call**.

To open the service settings view of the selected service, select **Options > Open**.

The available options may vary.

Service settings

Press  and select **Tools > Connectivity > Internet tel. > Options > Settings > Settings**.

To see the settings of the service, select **Login type** and from the following:

Automatic—To automatically log in to the internet call service. When a known network is found, the device connects to the internet call service automatically.

Manual—To manually log in to the internet call service.

If you use the automatic login type for wireless LAN networks, the device periodically scans for wireless LAN networks, which increases the demand on battery power and reduces the battery life.

Select **Saved conn. networks** to see the connection networks that are recognized by the internet call service. These networks are used for automatic login and are marked with  on the list of connection networks.

Select **Edit service settings** to open service-specific settings. This option is only available if a service-specific software plug-in has been installed in the device.

Saved connection networks

To view or remove the connection networks you have saved for an internet call service, press , and select **Tools > Connectivity > Internet tel. > Settings > Settings: > Saved conn. networks. > Options > Open**.

Select **Options > Remove** to remove a connection network from the service.

Voice and video mailboxes

To call your voice or video mailbox (network services, video mailbox available only in the UMTS network), press and hold **1** in the standby mode, and select **Voice mailbox** or **Video mailbox**. See also 'Call divert', p. 119, and 'Video calls', p. 91.

To change the phone number of your voice or video mailbox, press **Ⓜ**, and select **Tools > Utilities > Call mailbox**, a mailbox, and **Options > Change number**. Enter the number (obtained from your network service provider), and select **OK**.

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 **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 the end key.

Speed dial a phone number

To activate speed dialing, press **Ⓜ**, and select **Tools > Settings > Phone > Call > Speed dialing > On**.

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

To call in the standby mode, press the speed dial key and the send key.

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 a compatible headset with the headset key is attached, 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 default number if it has been set. Otherwise the device selects the first available number of the following: **Mobile**, **Mobile (home)**, **Mobile (business)**, **Telephone**, **Tel. (home)**, and **Tel. (business)**.

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 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.

Even if you denied video sending during a video call, the call is still charged as a video call. Check the pricing with your 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**.

The secondary camera on the front is used by default for video calls. 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 or multimedia 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 **Options > Enable or Disable > Sending video, Sending audio, or Sending aud. & video**.

To zoom in or out your own image, press  or .

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

To route the audio to a compatible headset with Bluetooth connectivity attached to your device, select **Options > Activate handsfree**. To route the audio back to the loudspeaker of your device, select **Options > Activate headset**.

To adjust the volume during a video call, use the volume key on the side of the device.

To use the main camera for sending video, select **Options > Use main camera**. To switch back to the secondary camera, select **Options > Use secondary camera**.

To end the video call, press the end key.

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.

The loudspeaker is active when you activate **Video sharing**. If you do not want to use the loudspeaker for the voice call while you share video, you can also use a compatible headset.

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 do the following:

- Ensure that your device is set up for person-to-person connections. See 'Settings', p. 93.
- Ensure you have an active UMTS connection and are within UMTS network coverage. See 'Settings', p. 93. 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. You cannot start **Video sharing** if you are not within UMTS network coverage.
- 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 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. 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**.

Ask your service provider for the SIP profile settings, and save them in your device.

Your 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. Press , select **Contacts**, and open the contact card (or start a new card for that person). Select **Options > Add detail > SIP or Share view**. 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 phone number of the recipient including the country code, for example +358, to share video (if supported by the network service provider).

UMTS 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 UMTS access point connection settings are configured properly. For help, see 'Connection', p. 120.

Share live video or video clip

- 1 When a voice call is active, select **Options > Share video > Live video**, and open the lens cover in the back. To share a video clip, select **Options > Share video > Recorded clip**. A list of video clips saved in the device opens. Select a clip you want to share. To preview the clip, select **Options > Play**.
- 2 If you share live video, your device sends the invitation to the SIP address you have added to the contact card of the recipient.
If you share a video clip, select **Options > Invite**. You may need to convert the video clip into a suitable format to be able to share it. **Clip must be converted for sharing. Continue?** is displayed. Select **OK**.
If the contact information of the recipient is saved in **Contacts**, and the contact has several SIP addresses or phone numbers including the country code, select the desired address or number. If the SIP address or phone number of the recipient is not available, enter the SIP address or the phone number of the recipient including the country code, and select **OK** to send the invitation.
- 3 Sharing begins automatically when the recipient accepts the invitation.

- 4 Select **Pause** to pause the sharing session. Select **Continue** to resume sharing. To fast forward or rewind the video clip, press  or . To play the clip again, select **Play**.
- 5 To end the sharing session, select **Stop**. To end the voice call, press the end key. Video sharing also ends if the active voice call ends.

To save the live video you shared, select **Save** to accept the **Save shared video clip?** query. The shared video is saved in the **Images & videos** folder in **Gallery**.

If you access other applications while you are sharing a video clip, the sharing is paused. To return to the video sharing view and continue sharing, in the active standby mode, select **Options > Continue**. See 'Active standby', p. 84.

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 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.

When you are receiving a video clip, to mute the sound of the clip, select **Mute**.

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 the call key, or open the slide.

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

If you do not want to answer a call, press the end key. If you have activated the **Call divert > If busy** function to divert calls, declining an incoming call also diverts the call. See 'Call divert', p. 119.

When you select **Reject** to reject an incoming call, you can send a text message informing the caller that you cannot answer the call. Select **Options > Send text message**. To set up this option and write a standard text message, see 'Call', p. 118.

Answer or reject a video call

When a video call arrives,  is displayed.

Press the call key to answer the video call. **Allow video image to be sent to caller?** is displayed. To start sending a 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 replaces the video image.

To replace the grey screen with a still image captured by the camera in your device, see 'Call', **Image in video call**, p. 118.

To end the video call, press the end key.

Call waiting

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

To answer the waiting call, press the call key. 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 the end key. To end both calls, select **Options > End all calls**.

Log

To monitor the phone numbers of missed, received, and dialed voice calls, press , and select **Tools > 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 registers, 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 duration

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

 **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 card', p. 114.

Packet data

To check the amount of data sent and received during packet data connections, press , and select **Tools > 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 are as follows:

-  Incoming
-  Outgoing
-  Missed communication events

To monitor all voice calls, text messages, or data and wireless LAN connections registered by the device, press , select **Tools > Log**, and press  to open the general log.

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 > Save 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 **C**.

To set the log duration, select **Options > Settings > Log duration**.

If you select **No log**, all the log contents, recent calls register, and messaging delivery reports are permanently deleted.

 **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**.

To view from the packet data counter how much data 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**.

Applications

Clock

Press , and select **Applications > Clock**. To view your active and inactive alarms, press . To set a new quick alarm, select **Options > New quick alarm**. When an alarm is active,  is shown.

Quick alarms are set for the next 24 hours and they cannot be repeated.

To turn off the sounding alarm, select **Stop**. 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 the next alarm, select **Applications > Clock > Options > Remove alarm**.

To set a new alarm, select **Applications > Clock**, press , and select **Options > New alarm**. Define the repetition, if needed.

To change clock settings, select **Applications > Clock > Options > Settings**. Set time and date, define time and date formats, clock type, or the alarm tone. In **Workdays** select weekdays for repetition options.

To allow the mobile phone network to update the time, date, and time zone information to your device (network service), select **Applications > Clock > Options > Settings > Network operator time > Auto-update**.

World clock

To open the world clock view, select **Clock**, and press  twice. 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 > Set as 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.

Calculator

Press , and select **Applications > Calculator**.

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

Notes

To write notes in .txt format, press , and select Applications > Notes.

Application manager

Press , and select Applications > 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 N81. Software providers will often refer to the official model number of this product: the Nokia N81-1.

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. You can use Nokia Application Installer in Nokia Nseries PC Suite to install an application to your device.

Install applications and software

 indicates a .sis application,  a Java application,  that the application is not fully installed, and  that the application is installed in the mass memory.

 **Important:** Only install and use applications and other software from trusted sources, such as applications that are Symbian Signed or have passed the Java Verified™ testing.

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, in Certificates, select View details. See 'Certificate management', p. 116.
- 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 **F9**, and select **Applications > App. mgr.**. Alternatively, search the device memory or the mass memory in **File mgr.**, or open a message in **Messaging > Inbox** that contains an installation file.
- 2 In **App. mgr.**, select **Options > Install**. In other applications, scroll to the installation file, and press **OK** 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 **OK**. If the application does not have a default folder defined, it is installed in the **Applications** folder.

To see which software packages are installed or removed and when, select **Options > View log**.

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.

After you install applications to mass memory, installation files (.sis) remain in the device memory. The files may use large amounts of memory and prevent you from storing other files. To maintain sufficient memory, use Nokia Nseries PC Suite to back up installation files to a compatible PC, then use the file manager to remove the installation files from the device memory. See 'File manager', p. 68. If the .sis file is a message attachment, delete the message from the Messaging inbox.

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.

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:

Software installation—Select whether Symbian software that has no verified digital signature can be installed.

Online certificate 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 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 > Open** to change settings related to that specific application.

Calendar

Press **☰**, and select **Applications > Calendar**. To add a new calendar entry, scroll to the desired date, select **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

- 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, select **Options > Add description**.

- To save the entry, select **Done**.

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 **Subject**. In the to-do view, a to-do note entry opens.

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**.

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



Calendar views

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

To go to a certain date, select **Options > Go to date**.

To jump to today, press **#**.

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

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

If the other device is not compatible with Coordinated Universal Time (UTC), the time information of received calendar entries may not be displayed correctly.

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

Manage your calendar entries

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**.

Recorder



To record voice memos, press **Ⓜ**, and select **Applications > Media > Recorder**. To record a telephone conversation, open **Recorder** during a voice call. Both parties hear a tone every 5 seconds during recording.

RealPlayer



Press **Ⓜ**, and select **Applications > Media > RealPlayer**. With **RealPlayer**, you can stream media files over the air without saving them to the device first or play video clips saved in the device.

RealPlayer supports files with extensions such as .3gp, .mp4, or .rm. However, **RealPlayer** does not necessarily support all file formats or all the variations of file formats.

In the landscape view, use the media keys to control the player.

Play video clips

- To play a saved media file, select **Options > Open** and from the following:
 - Most recent clips**—to play one of the last six files played in **RealPlayer**.
 - Saved clip**—to play a file saved in **Gallery**
- Scroll to a file, and press the scroll key to play the file.

To adjust the volume, use the volume key.

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.

In **RealPlayer**, you can only open an `rtsp://` URL address. However, **RealPlayer** will play a `.ram` file if you open an `http` link to it in **Browser**.

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. Only the link to the content is saved in your device.

RealPlayer settings

You may receive **RealPlayer** settings in a special message from the service provider. See 'Data and settings', p. 37. For more information, contact your service provider.

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

Video—to adjust the contrast of the video or have **RealPlayer** automatically repeat video clips after they finish playing.

Streaming—Contact your service provider for the correct settings.

Adobe Flash Player

To view, play, and interact with compatible flash files made for mobile devices, press , and select **Applications > Media > Flash Player**. Scroll to a flash file, and press .



IM—instant messaging

Press , and select **Applications > Media > 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 **Recorded 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. 37. You can also enter the settings manually. See 'Chat server settings', p. 106.

Connect to an IM server

- 1 To connect to the IM server in use, open **IM**, and select **Options > Log in**. To change the IM server in use and save new IM servers, see 'Chat server settings', p. 106.
- 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 > Log out**.

Modify your IM settings

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

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

Show my availability—To allow others to see if you are online, select **To everyone**.

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

Allow invitations 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.

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

Availability 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 colour—Select the color of the instant messages you send.

Received msg colour—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 join an IM group that is not on the list, but for which you know the group ID, select **Options > Join new group**.

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

Chat

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 message**.

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 **Recorded 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 chat contact lists from the server, or add a new chat contact to a contact list. When you log in to the server, the previously used chat contact list is retrieved from the server automatically.

Chat server settings

Select **Options > Settings**. You may receive the settings in a special text message from the network operator or service provider that offers the chat 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 chat 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

Nokia Lifeblog

To start Nokia Lifeblog on your device, press , and select **Applications > Media > Lifeblog > Options > Open**.

Lifeblog is a combination of software for mobile device and PC that keeps a multimedia diary of the items that you collect with your device. Lifeblog organizes your photos, videos, sounds, text messages, multimedia messages, and weblog posts into a chronology that you can browse, search, share, publish, and back up. Both Nokia Lifeblog PC and Nokia Lifeblog mobile let you send or blog your items for others to see.

Lifeblog mobile automatically keeps track of your multimedia items. Use Lifeblog on your device to browse

your items, send them to others, or publish them on the web. Connect your device to a compatible PC using a compatible USB data cable or Bluetooth connectivity to transfer and synchronize the items on the device with your compatible PC.

Lifelog PC provides easy browsing and searching of the items that you collected with your device. With one-button transfer using a USB data cable or Bluetooth connectivity, your favorite photos, videos, text, and multimedia messages are transferred back to your device.

For safekeeping, you can back up your Nokia Lifelog database using your hard disk, compatible CDs, compatible DVDs, compatible removable drive, or compatible network drive. Additionally, you can post items to your weblog (blog).

For more information on weblog services and their compatibility with Nokia Lifelog, visit www.nokia.com/lifelog, or press **F1** in the Lifelog PC application to open Nokia Lifelog Help.

Installation on your PC

You must install Nokia Lifelog PC (provided on the DVD-ROM) to a compatible PC before using it.

Before you install Nokia Lifelog on a compatible PC, you need the following:

- 1 GHz Intel Pentium or equivalent, 128 MB RAM
- 400 MB of available hard disk space (if Microsoft DirectX and Nokia Nseries PC Suite must be installed)
- Graphics capability of 1024x768 and 24-bit color
- 32 MB graphics card
- Microsoft Windows 2000 or Windows XP

To install Lifelog on your PC:

- 1 Insert the DVD-ROM supplied with your device.
- 2 Install Nokia Nseries PC Suite (includes Nokia Connectivity Cable drivers for USB connection).
- 3 Install Lifelog for PC.

If Microsoft DirectX 9.0 is not already installed on your PC, it is installed at the same time with Lifelog for PC.

Connect your device and PC

To connect your device and a compatible PC using a compatible USB data cable:

- 1 Ensure that you have installed Nokia Nseries PC Suite (available on the DVD-ROM).
- 2 Connect the USB data cable to the device and the PC. The USB mode should be PC Suite. When you connect your device to the PC for the first time after you have installed Nokia Nseries PC Suite, the PC installs the specific driver for your device. This may take a while.
- 3 Start the Lifelog PC application.

To connect your device and a compatible PC using Bluetooth wireless technology:

- 1 Ensure that you have installed Nokia Nseries PC Suite on your PC.
- 2 Ensure that you have paired your device and the PC through Bluetooth wireless technology with **Get Connected** in Nokia Nseries PC Suite (available on the DVD-ROM). For more information on Nokia Nseries PC Suite, see the guides available at the Nokia N81 product support pages at www.nokia.com/support or your local Nokia website. For more information on Bluetooth connectivity, see the user guide for your device.
- 3 Activate Bluetooth connectivity on your device and on your PC.

Copy items

To copy new or edited items from your device to your PC, and copy the selected items from your PC to your device:

- 1 Connect your device to the PC.
- 2 Start the Lifeblog application on your PC.
- 3 In the Lifeblog PC application, select **File > Copy from phone and to Phone**.

The new items from your device are copied to your PC. The items on the **To phone** view on your PC are copied to your device.

Browse timeline and favorites

When you start Lifeblog on your device, the Timeline view opens and shows your multimedia items. To open your saved favorites, select **Options > View favourites**.

When you start Lifeblog on your PC, you have several ways to move around in the Timeline and Favourites views. The fastest way is to move the slider handle forward or backward, fast or slow. Alternatively, click the time bar to select a date, use the **Go to date** feature, or use the arrow keys.

Post to the web

To share your best Lifeblog items, send them to your weblog on the internet for others to see.

You must first create an account with a compatible weblog service, create one or more weblogs that you use as the destination of your posts, and add the weblog account to Lifeblog. The recommended weblog service for Nokia Lifeblog is TypePad from Six Apart, www.typepad.com.

On your device, to add the weblog account in Lifeblog, select **Options > Settings > Blog**. On your PC, edit accounts in the **Blog account manager** window.

To post items to the web from your device, do the following:

- 1 In **Timeline** or **Favourites**, select the items that you want to post to the web.
- 2 Select **Options > Post to Web**.
- 3 If you use the feature for the first time, Lifeblog retrieves a weblog list from the weblog server.
- 4 The weblog post dialog opens. Select the weblog you want to use from the **Post to:** list. If you have created new weblogs, to update the weblog list, select **Options > Refresh blog list**.
- 5 Enter a title and a caption for the post. You can also write a longer story or description in the body text field.
- 6 When everything is ready, select **Options > Send**.

To post items to the web from your PC, do the following:

- 1 In **Timeline** or **Favourites**, select the items (a maximum of 50) that you want to post to the web.
- 2 Select **File > Post to the Web....** The **Post to the Web** window opens.
- 3 Enter a title and a caption for the post. You can also write a longer story or description in the body text field.
- 4 Select the weblog that you want to use from the **Post to:** list.
- 5 When everything is ready, click the **Send** button.

Import items from other sources

In addition to the .jpeg images of your device, you can also import .jpeg images and .3gp and .mp4 video clips, .amr

sound files, and .txt text files from other sources (such as a CD, DVD, or folders on your hard disk) into Lifeblog.

To import items from a compatible PC to Lifeblog for PC, do the following:

- 1 In **Timeline** or **Favourites**, select **File > Import from PC....** The **Import** window opens.
- 2 Browse the list to find the image or video file, or sound or text file from the list, or navigate to other folders to find the file that you want to import. Use the **Look in** list to browse other drives or appliances.
- 3 Select a folder, file, or several files. You can view their content in the **Preview:** pane.
- 4 Click **Open** to import the folder (including subfolders) or selected files.

Digital rights management

Content owners may use different types of digital rights management (DRM) technologies to protect their intellectual property, including copyrights. This device uses various types of DRM software to access DRM-protected content. With this device you can access content protected with WMDRM 10, OMA DRM 1.0, and OMA DRM 2.0. If certain DRM software fails to protect the content, content owners may ask that such DRM software's ability to access new DRM-protected content be revoked. Revocation may also prevent renewal of such DRM-protected content

already in your device. Revocation of such DRM software does not affect the use of content protected with other types of DRM or the use of non-DRM-protected content.

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

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

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

Some activation keys may be connected to a specific SIM card, and the protected content can be accessed only if the SIM card is inserted in the device.

To view the digital rights activation keys stored in your device, press **Ⓜ**, and select **Applications > Media > 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 **Options > Get new key**.

To view detailed information, such as the validity status and ability to send the file, scroll to an activation key, and press **Ⓜ**.

Adobe Reader

With Adobe Reader, you can read .pdf documents on the display of your device.

This application has been optimized for .pdf document content on handsets and other mobile devices, and provides only a limited set of features compared with PC versions.

To open documents, press **⌘**, and select **Applications > Office > Adobe PDF**. Your recent files are listed in the file view. To open a document, scroll to it, and press **⏏**.

Use **File mgr.** to browse and open documents stored in the device.

More information

For more information, visit www.adobe.com.

To share questions, suggestions, and information about the application, visit the Adobe Reader for Symbian OS user forum at <http://adobe.com/support/forums/main.html>.

Converter

To convert measures from one unit to another, press **⌘**, and select **Applications > 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 the 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.

Settings

To change settings, press , and select **Tools > Settings**. Scroll to **General**, **Phone**, **Connection**, or **Applications**, and press . Scroll to a setting or setting group you want to change, and press .

Some settings may be preset for the device by your service provider, and you may not be able to change them.

General

To edit the general settings of your device or restore the original default device settings, press , and select **Tools > Settings > General > Personalisation**, **Date and time**, **Slide handling**, **Sleep mode**, **Enhancement**, **Security**, **Factory settings**, **Navi wheel** or **Positioning**.

For **Date and time**, see 'Clock', p. 98.

Personalisation

Press , and select **Tools > Settings > General > Personalisation > Display** to adjust display brightness, select font and icon size, adjust power saver time-out, select the welcome screen and select the backlight time-out.

To edit settings related to the display, standby mode, and general functionality of your device, press , and select **Tools > Settings > General > Personalisation**.

Tones allows you to change the tones of calendar, clock, and the currently active profile.

Themes opens the Themes application. See 'Change the look of your device', p. 84.

Voice comms. opens the settings for the **Voice comm.** application. See 'Voice commands', p. 69.

Display

Brightness—Press  or  to adjust the brightness of the display.

Font size—Adjust the size of the text and icons on the display.

Power saver time-out—Select the time-out period after which the power saver is activated.

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.

Light time-out—Select a time-out after which the backlight of the display is switched off.

Standby mode

Active standby—Use shortcuts to applications in the standby mode. See 'Active standby', p. 84.

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.

Shortcuts > Left selection key and Right selection key—Assign a shortcut to the selection keys in the standby mode.

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.

Language

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.

Slide handling

Opening the slide—To select whether incoming calls are answered when opening the slide, select **Answer incoming call** or **Call not answered**.

Closing the slide—To select whether active calls are ended when closing the slide, select **End active call** or **Continue active call**.

Keypad activation—To select whether the keypad is locking when closing the slide, select **On when closing slide** or **Off when closing slide**. To receive a query every time when closing the slide, select **Always ask**.

Sleep mode

Select **Off** to disable the power saver LED for the sleep mode.

Enhancement

Enhancement sett.

For enhancement indicators, see 'Essential indicators', p. 14.

The available settings depend on the type of enhancement. Select an enhancement and from the following:

Default profile—Set the profile that you want activated each time you connect a certain compatible enhancement to your device. See 'Profiles—set tones', p. 82.

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.

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 **Text phone** or a **Loopset**, you must activate it on your device. To activate **Text phone**, select

Text phone > **Use text phone** > **Yes**. To activate the loopset, select **Loopset** > **Use loopset** > **Yes**.

Security

To edit settings related to the security, press , and select **Tools** > **Settings** > **General** > **Security** > **Phone and SIM card**, **Certificate management**, or **Security module**.

Phone and SIM card

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.

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. 115.

Avoid using access codes similar to the emergency numbers to prevent accidental dialing of the emergency number.

Keypad autolock period—Select whether the keypad is locked when your device has been idle for a certain period of time.

 **Tip!** To lock or unlock the keypad manually, pull the lock switch.

Phone autolock period—To avoid unauthorized use, you can set a time-out after which the device automatically locks. A locked device cannot be used until the correct lock code is entered. To turn off the autolock period, select **None**.

See 'Glossary of PIN and lock codes', p. 115.

When the device is locked, calls 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 card 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 service provider 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 service provider whose USIM card is in your device.

Certificate 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.

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.

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. 117.
- **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.

Security module

To view or edit a security module (if available) in **Security module**, scroll to it, and press the scroll key. To view detailed information about a security module, scroll to it, and select **Options > Security details**.

Factory settings

To reset some of the settings to their original values, select **Factory settings**. To do this, you need the lock code. See 'Phone and SIM card', p. 114. After resetting, the device

may take a longer time to power on. Documents and files are unaffected.

Navi wheel

Select **On** to perform certain actions (for example, browse through lists in some applications) by sliding your finger around the rim of the scroll key.

Positioning

Positioning methods—Select the positioning methods used to detect the location of your device: **Bluetooth GPS** to use a compatible external GPS receiver with Bluetooth connectivity, and **Network based** to use information from the cellular network (network service). The location information can be used by compatible applications in your device.

Positioning server—Define an access point and a positioning server for secure positioning. The positioning server may be preset by your service provider, and you may not be able to edit the settings.

Phone

To edit the settings related to making and receiving calls, press , and select **Tools > Settings > Phone > Call, Call divert, Call barring, or Network**.

Call

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 service provider when you make a subscription (Set by network) (network service).

Send my internet call ID—You can set your internet call ID to be displayed to (Yes) or hidden from (No) the person to whom you are calling.

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).

Internet call waiting—Select **Activated** to be notified of a new incoming internet call while you have a call in progress.

Internet call alert—Select **On** to be alerted for incoming internet calls. If you select **Off**, you are not alerted, but a notification about missed calls appears.

Default call type—To set internet calls as default calls when starting the call with the call key, select **Internet call**. If internet telephone service is not available, a regular voice call is started instead.

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. 95.

Message text—Write a text to be sent in a text message when you reject 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 the end key.

Show call duration—Activate this setting if you want the length of a call to be displayed during the call.

Summary after call—Activate this setting if you want the duration of the call briefly displayed after the call.

Speed dialling—Select **On**, and the numbers assigned to the speed dialling keys (**2 - 9**) can be dialed by pressing and holding the key. See also 'Speed dial a phone number', p. 90.

Anykey answer—Select **On**, and you can answer an incoming call by briefly pressing any keypad key, except the left selection key, right selection key, power key, and end key.

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.

Call divert

Call divert allows you to divert your incoming calls to your voice mailbox or another phone number. For details, contact your service provider.

Select which calls you want to divert and the desired diverting option. To divert voice calls when your number is busy or when you reject incoming calls, select **If busy**. Set the option on **(Activate)** or off **(Cancel)**, or check whether the option is activated **(Check status)**.

Several diverting options can be active at the same time. When all calls are diverted,  is shown in the standby mode.

Call barring and call diverting cannot be active at the same time.

Call barring

Call barring (network service) allows you to restrict the calls that you make or receive with the device. To change the settings, you need the barring password from your service provider.

Select the desired barring option, and set it on **(Activate)** or off **(Cancel)**, or check whether the option is active **(Check status)**. **Call barring** affects all calls, including data calls.

Call barring and call diverting cannot be active at the same time.

When calls are barred, calls may be possible to certain official emergency numbers.

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 service provider)—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 service providers. Contact your service provider 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 cellular network.

 **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.

Connection



To edit access point and other connection settings, press , and select **Tools > Settings > Connection > Bluetooth, USB, Access points, Packet data, Wireless LAN, Data call, SIP settings, Internet telephone settings, Configurations, or APN control.**

For USB settings, see 'USB', p. 76.

For settings for Bluetooth connectivity, see 'Bluetooth connectivity', 'Settings', p. 73.

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. 70. Only one connection in one wireless LAN can be active at a time, but several applications can use the same internet access point.

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
- 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 service provider.

Access points

You may receive access point settings in a message from a service provider. See 'Data and settings', p. 37. Some or all access points may be preset for your device by your service provider, 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!** You can create internet access points in a wireless LAN with the WLAN wizard. See 'WLAN wizard', p. 71.

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 access points

Follow the instructions from your service provider.

Access point name—You obtain the access point name from your 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** or **IPv6**. 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 DNS address**, enter the IP address of the primary DNS server. In **Secondary DNS address**, enter the IP address of the secondary DNS server. Contact your internet service provider to obtain these addresses.

Proxy server address—Define the address for the proxy server.

Proxy port number—Enter the proxy port number.

Wireless LAN access points

Follow the instructions from the wireless LAN service provider.

WLAN network name—Select **Enter manually** or **Search for networks**. If you select an existing network, **WLAN network mode** and **WLAN security mode** are determined by the settings of its access point device.

Network status—Defines whether the target network is hidden or not.

WLAN network 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. In an ad-hoc network, all devices must use the same **WLAN network name**.

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 settings—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/WPA2**—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.
- **WPA2 only mode (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 server 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 connection—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 register to the packet data network. 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 WLAN availability—Select whether  is displayed when a wireless LAN is available.

Scan for networks—If you set **Show WLAN 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.

Data call

Select **User defined** or **Unlimited** to define the time-out period after which data call connections automatically end

if no data has been transferred. If you select **Unlimited**, the connection stays active until you disconnect it.

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 service provider. You can view, delete, or create these setting profiles in **SIP settings**.

Internet telephony

To create or edit an internet call profile to make internet calls, select **Options > New profile** or **Edit**. Select **SIP profiles** and the profile you want to use for internet calls. Internet calls are not possible without the SIP profile and SIP settings.

Configurations

You may receive trusted server settings from your service provider in a configuration message. You can save, view, or delete these settings in **Configurations**.

Access point name control

With access point name control service, you can restrict packet data connections and allow your device to use only certain packet data access points.

This setting is only available if your SIM card supports the access point control service.

To set the control service on or off or to change the allowed access points, select **Options** and the corresponding option. To change the options, you need your PIN2 code. Contact your service provider for the code.

Applications

To edit the settings of some of the applications in your device, press  , and select **Tools > Settings > Applications**. The settings are also available in each application by selecting the settings option.

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 service provider.

For information about passwords, contact your access point provider, for example, a commercial internet service provider (ISP) or network service provider.

Application not responding

Q: How do I close an application that is not responding?

A: 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 are compatible, have activated Bluetooth connectivity, and are not in hidden mode. Check also 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.

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 **Tools > Bluetooth > Bluetooth > Off**.

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.

Q: What can I do if my home network connection stops working?

A: Switch off the wireless LAN connection from your compatible PC and your device, and switch it on again. If this does not help, restart your compatible PC and your device. If the connection still does not work, reconfigure the WLAN settings in both your compatible PC and device. See 'Wireless LAN', p. 70, and 'Connection', p. 120.

Q: Why can't I see my compatible PC in my device in the home network?

A: If you are using a firewall application in your compatible PC, check that it allows home media server to use the external connection (you can add Home media server to the firewall application's exceptions list). Check from the firewall settings that the firewall application allows traffic to the following ports: 1900, 49152, 49153, and 49154. Some WLAN access point devices have a built-in firewall. In such cases, check that the firewall in the access point device does not block traffic to the following ports: 1900, 49152, 49153, and 49154. Check that the WLAN settings are the same in your device and compatible PC.

Memory low

Q: What can I do if my device memory is low?

A: You can delete unused items saved in your device regularly to avoid memory getting low. See 'Memory low—free memory', p. 68.

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 memory to perform operation.**

Delete some data first. or **Memory low.** Delete some data from phone memory., try deleting items one by one (starting from the smallest item).

To view what kind of data you have and how much memory

the different data groups consume, press , and select **Tools > File manager > Options > Memory details.**

Q: How can I save my data before deleting it?

A: Save your data using one of the following methods:

- Use Nokia Nseries 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.

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: 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. Press , and select **Messaging > Options > Settings > Multimedia 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, press , and select **Messaging > Options > Settings > Multimedia message > Multimedia retrieval** and one of the following:

Manual—to have the multimedia messaging center save messages to be retrieved later. You receive a notification when there is a new multimedia message that you can retrieve in the multimedia message center.

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 Nseries PC Suite is installed and running on your PC. See the user guide for Nokia Nseries PC Suite on the DVD-ROM. For further information on how to use Nokia Nseries PC Suite, see the help function on Nokia Nseries 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 diverting (network service), you can divert 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: The WLAN access point may use 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: The WLAN on your Nokia device will switch off when you are not trying to connect, or are not connected to another access point, or scanning for available networks. To further reduce battery consumption, you can specify that your Nokia device does not scan, or scans less often, for available networks in the background. WLAN will switch off in between background scans.

To change the background scan settings:

- 1 Press , and select **Tools > Settings > Connection > Wireless LAN**.
- 2 Change the value of **Show WLAN availability** to **Never** to stop background scans, or increase the background scan time interval in **Scan for networks**.
- 3 To save your changes, select **Back**.

When **Scan for networks** is set to **Never**, the WLAN availability icon will not be shown in the standby mode. However, you can still manually scan for available WLAN networks, and connect to WLAN networks as usual.

Battery information

Charging and discharging

Your device is powered by a rechargeable battery. 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 several 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.

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

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, and inspect the hologram label using the following steps:

Successful completion of the steps is not a total assurance of the authenticity of the battery. If you have any reason to believe that your battery is not an authentic, original Nokia battery, you should refrain from using it, and take it to the nearest 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 you look at the hologram on the label, you should see the Nokia connecting hands symbol from one angle and the Nokia Original Enhancements logo when looking from another angle.
- 2 When you angle the hologram left, right, down, and up, you should see 1, 2, 3, and 4 dots on each side respectively.



What if your battery is not authentic?

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

Care and maintenance

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

- Keep the device dry. Precipitation, humidity, and all types of liquids or moisture can contain minerals that will corrode electronic circuits. If your device does get wet, remove the battery, and allow the device to dry completely before replacing it.
- Do not use or store the device in dusty, dirty areas. Its moving parts and electronic components can be damaged.
- Do not store the device in hot areas. High temperatures can shorten the life of electronic devices, damage batteries, and warp or melt certain plastics.
- Do not store the device in cold areas. When the device returns to its normal temperature, moisture can form inside the device and damage electronic circuit boards.
- Do not attempt to open the device other than as instructed in this guide.
- Do not drop, knock, or shake the device. Rough handling can break internal circuit boards and fine mechanics.
- Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the device.
- Do not paint the device. Paint can clog the moving parts and prevent proper operation.
- Use a soft, clean, dry cloth to clean any lenses, such as camera, proximity sensor, and light sensor lenses.
- Use only the supplied or an approved replacement antenna. 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.
- To reset the device from time to time for optimum performance, power off the device and remove the battery.

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

Disposal



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

Return the products to collection to prevent possible harm to the environment or human health from uncontrolled waste disposal and to promote the sustainable reuse of material resources. Collection information is available from the product retailer, local waste authorities, national producer responsibility organizations, or your local Nokia representative. For more information, see product Eco-Declaration or country-specific information at www.nokia.com.

Additional safety information

Small children

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

Operating environment

This device meets RF exposure guidelines when used either in the normal use position against the ear or when positioned at least 2.2 centimeters (7/8 inches) away from the body. When a carry case, belt clip, or holder is used for body-worn operation, it should not contain metal and should position the device the above-stated distance from your body.

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

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

Medical devices

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

Implanted medical devices

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

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

- Read and follow the directions from the manufacturer of their implanted medical device.

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

Hearing aids

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

Vehicles

RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles such as electronic fuel injection systems, electronic antiskid (antilock) braking systems, electronic speed control systems, and air bag systems. For more information, check with the manufacturer, or its representative, of your vehicle or any equipment that has been added.

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

equipment is improperly installed and the air bag inflates, serious injury could result.

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

Potentially explosive environments

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

Emergency calls

 **Important:** 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. If the device is in the offline or flight profile mode, you may need to change the profile to activate the phone function 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 0.96 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.

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