

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. 52 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. 73.

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. 77.


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. 124.

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. 51.

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. 118 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.

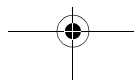
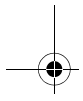
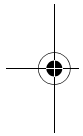
Select from the following:

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. 77.



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.

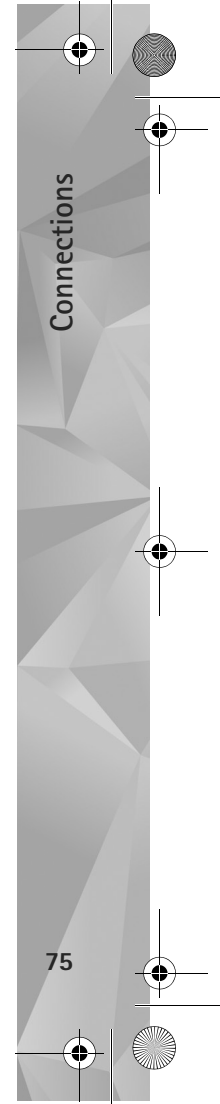
Send data using Bluetooth connectivity





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. 74.

 **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. 76.
- 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**.




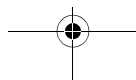
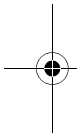
Receive data using Bluetooth connectivity

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. 75. 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. 76. 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. 51.

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.**.

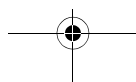
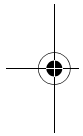
To check whether software updates are available, select **Options > Check for updates**. Select an internet access point when asked.

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**.

For more information, see the extended user guide at www.nseries.com/support or your local Nokia website.

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 **C**.

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 netw.> 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. 82.

 **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. 124.

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.

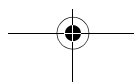
If you use wireless LAN in a network that does not have encryption, switch off sharing Nokia N81 files with other devices, or do not share any private media files. To change sharing settings, see 'Home media settings', p. 81.

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 netw. application. See 'Wireless LAN', p. 72 and the wireless LAN settings in 'Access points', p. 124.

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 netw.> 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 netw.**, 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. 124.

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 netw. > 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. 52 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 **fg**, 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.




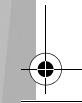
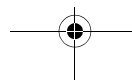
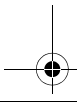
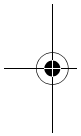
Synchronization

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**.



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


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 memory card.

 **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. 119.
- If you install a file that contains an update or repair to an existing application, you can only restore the original application if you have the original installation file or a full back-up copy of the removed software package. To restore the original application, remove the application, and install the application again from the original installation file or the back-up copy.

- The .jar file is required for installing Java applications. If it is missing, the device may ask you to download it. If there is no access point defined for the application, you are asked to select one. When you are downloading the .jar file, you may need to enter a user name and password to access the server. You obtain these from the supplier or manufacturer of the application.
- 1 To locate an installation file, press , and select **Tools > App. mgr.**. Alternatively, search the device memory or the memory card 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  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 . 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 memory card, 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. 70. 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 the entry type.

Press **⌘**, and select **Calendar**. To add a new calendar entry, scroll to the desired date, select **Options > New entry** and one of the following:

- 1 **Meeting**—to remind you of an appointment that has a specific date and time

Memo—to write a general entry for a day

Anniversary—to remind you of birthdays or special dates (entries are repeated every year)

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

- 2 Fill in the fields. To set an alarm, select **Alarm > On**, and enter the **Alarm time** and **Alarm date**.

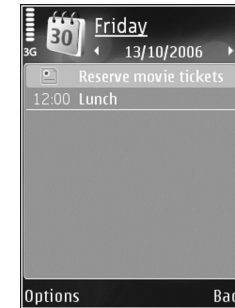
To add a description for an appointment, select **Options > Add description**.

- 3 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.



Select **Options** to add new entries, change settings, go to a specific date, send a calendar note to a compatible device, delete entries, and mark tasks as completed.

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

- 1 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
- 2 Scroll to a file, and press **▶ ||** 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. 92.

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. 92.
- 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 > IM settings** and from the following:

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

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.

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

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

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**.

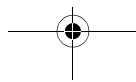
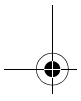
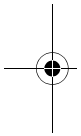
Join IM groups

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**.

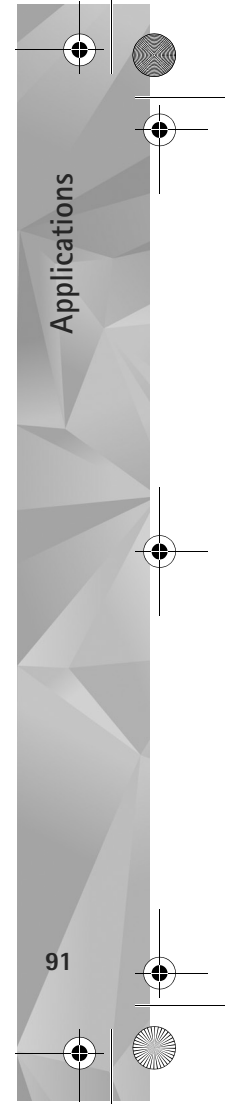
To prevent receiving messages from certain participants, select **Options > Blocking options**.

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



Applications

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 > Server 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



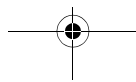
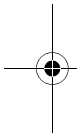
Nokia Lifeblog

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.

Lifeblog 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 Lifeblog 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 Lifeblog, visit www.nokia.com/lifeblog, or press **F1** in the Lifeblog PC application to open Nokia Lifeblog Help.

Installation on your PC

You must install Nokia Lifeblog PC (provided on the DVD-ROM) to a compatible PC before using it.

Before you install Nokia Lifeblog 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 Lifeblog 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 Lifeblog for PC.



If Microsoft DirectX 9.0 is not already installed on your PC, it is installed at the same time with Lifeblog 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 CD-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 Lifeblog 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 CD-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

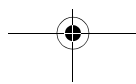
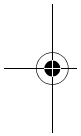
To share your best Lifeblog items, send them to your weblog on the internet for others to see.

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:

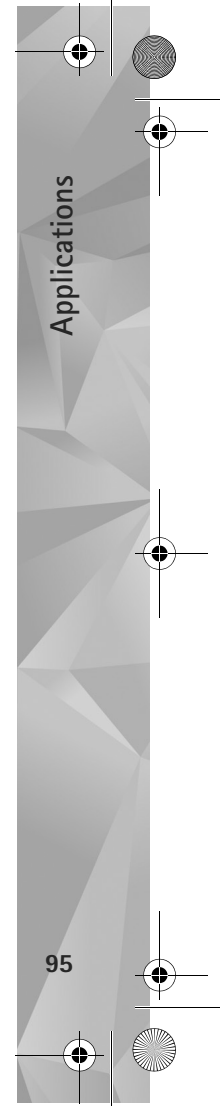
- 1 In **Timeline** or **Favourites**, select the items (a maximum of 50) that you want to post to the web.
- 2 Select **File > Post to the Web...** The **Post to the Web** window opens.
- 3 Enter a title and a caption for the post. You can also write a longer story or description in the body text field.
- 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.


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. 102.
- To change the standby mode background image, see 'Change the look of your device', p. 101.
- To customize the ringing tones, see 'Profiles—set tones', p. 99 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. 116.
- 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**.

For more information, see the extended user guide at www.nseries.com/support or your local Nokia website.

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 memory card 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. 72. You can also use Bluetooth connectivity while in the **Offline** profile. See 'Bluetooth connectivity', p. 74.

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 ringing tone, select **Ringing tone** and the desired ringing tone.

Try how the different effects under **Sound trajectory**, **Trajectory speed**, **Reverberation**, and **Doppler effect** change the tone. These settings may not be available for all ringing tones and sound trajectories.



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.

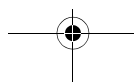
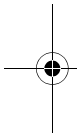
Reverberation—Select the type of echo.

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 **✓**.

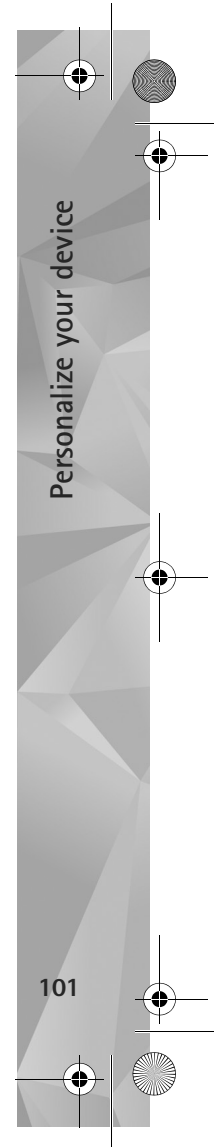
The themes on the memory card are indicated by **Ⓜ**.

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. Closing the slide does not end an active voice call.

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.

Make calls

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 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

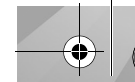
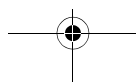
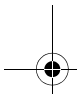
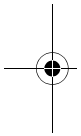
services, which use the same access point, your device may be connected to multiple services at the same time. The service used for outgoing internet calls is shown where the connection networks are listed; to change it, select **Change service**.

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**.




Make calls

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.

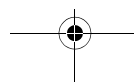
Voice and video mailboxes

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. 122, and 'Video calls', p. 108.

To change the phone number of your voice or video mailbox, press **Ⓜ**, and select **Tools > 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.

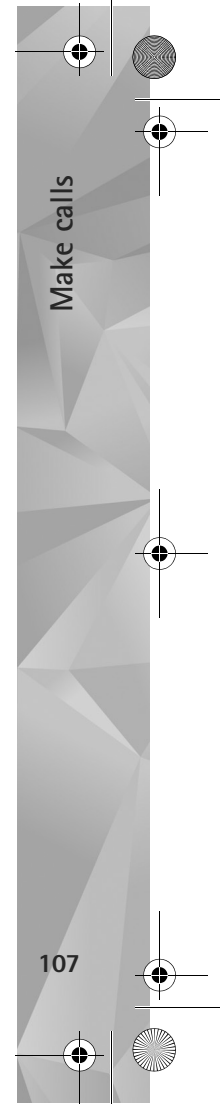


- 3 When the new call is answered, to join the first participant in the conference call, select **Options > Conference**.
To add a new person to the call, repeat step 2, and select **Options > Conference > Add to conference**. Your device supports conference calls between a maximum of six participants, 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 dialling > 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.

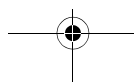
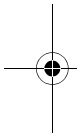
Even if you denied video sending during a video call, the call is still charged as a video call. Check the pricing with your service provider.


- 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 .

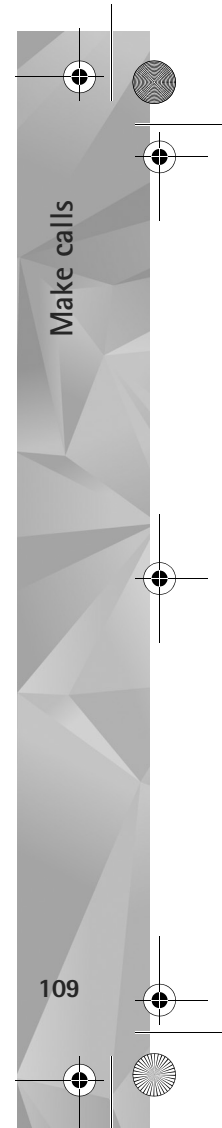
To switch the places of the sent video images on the display, select **Options > Change image order**.

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 handset**.

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**.

Select **Options > Enable or Disable** to enable or disable video or audio, **Change image order** to change the order of sent video images, **Activate handsfree** or **Activate handset** to activate handsfree with a compatible device



supporting Bluetooth connectivity or Use main camera / Use secondary camera to select a 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.

Video sharing requires a UMTS connection.

For more information, see the extended user guide at www.nseries.com/support or your local Nokia website.

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. 110.
- Ensure you have an active UMTS connection and are within UMTS network coverage. See 'Settings', p. 110. 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).

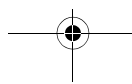
UMTS connection settings

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. 124.

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



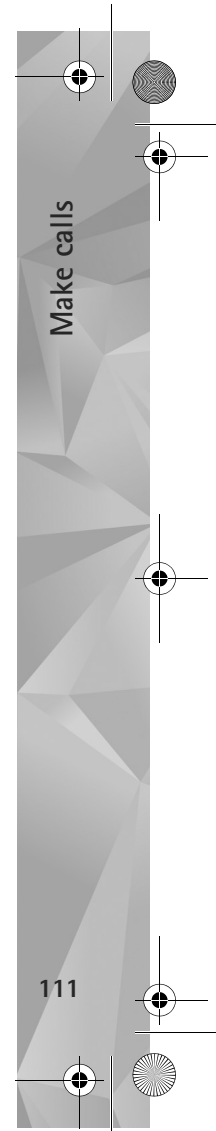
opens. Select a clip you want to share. To preview the clip, select **Options > Play**.

- 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. 102.

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. 122.

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. 121.

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. 121.

To end the video call, press the end key.


Call waiting

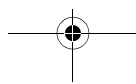
You can answer a call while you have another call in progress if you have activated Call waiting in Tools > Settings > Phone > Call > Call waiting (network service).

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

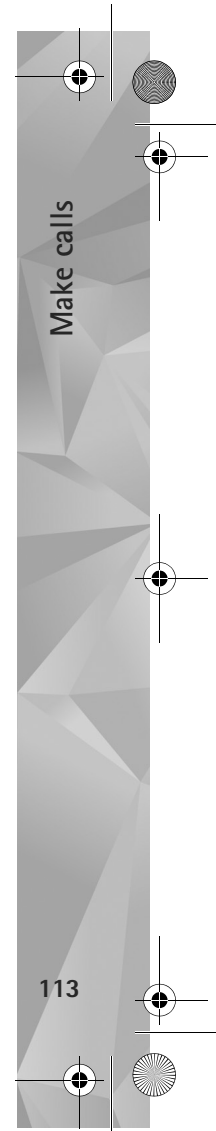
To monitor the approximate duration of your incoming and outgoing calls, press , and select Tools > Log > Call duration.

 **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. 118.

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








Make calls

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 .

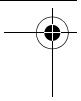
To set the log duration, select **Options > Settings > Log duration**.

Select **Options** to save an unknown phone number to **Contacts**, filter the log, clear the log contents, or set log duration in **Settings**.




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**.

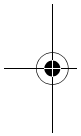


Settings


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.

For more information, see the extended user guide at www.nseries.com/support or your local Nokia website.




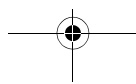
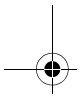
General

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**, **Sensor settings** or **Positioning**.


For **Date and time**, see 'Clock', p. 84.

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. 101.

Voice comms. opens the settings for the Voice comm. application. See 'Voice commands', p. 71.

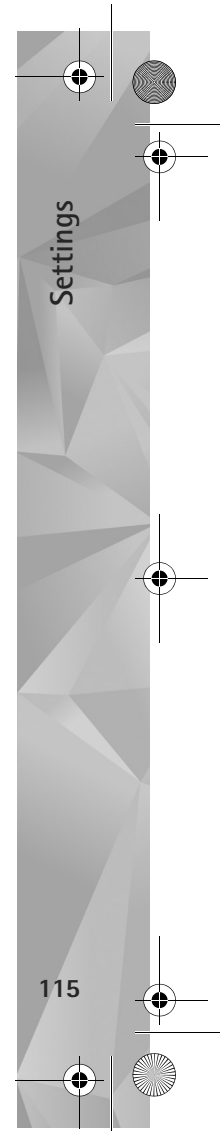
Display

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.




Settings

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. 102.

Press , and select **Tools > Settings > General > Personalisation > Standby mode** to use shortcuts in the standby mode, select the shortcut applications, assign shortcuts to selection keys and set off or on an operator logo, if available.

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.

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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.

You can change the language-related settings, such as phone and writing language, date and time format, separators, and predictive text input vocabulary.

Slide handling

Press , and select **Tools > Settings > General > Personalisation > Slide handling** to select whether calls are answered when opening the slide or ended when closing it.


Also, select whether the keypad is locked when closing the slide.

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 locked 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

Press , and select **Tools > Settings > General > Personalisation > Sleep mode** to enable or disable the blinking LED in the power saver mode.

Select **Off** to disable the power saver LED for the sleep mode.

Enhancement

Press , and select **Tools > Settings > General > Personalisation > Enhancement sett.** to enable or disable the blinking LED in the power saver mode.

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. 99.

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. 118.

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. 118.

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.

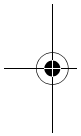
Personal identification number (PIN) code—This code protects your SIM card against unauthorized use. The PIN code (4 to 8 digits) is usually supplied with the SIM card. After three consecutive incorrect PIN code entries, the code is blocked, and you need the PUK code to unblock it.



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.

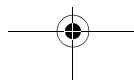
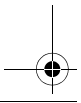



Personal unblocking key (PUK) code and PUK2 code—These codes (8 digits) are required to change a blocked PIN code or PIN2 code, respectively. If the codes are not supplied with the SIM card, contact the service provider whose SIM card is in your device.

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.



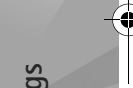
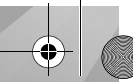
In the certificate management main view, you can see a list of authority certificates that are stored in your device. Press  to see a list of personal certificates, if available.

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



Settings

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. 120.
- **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. 118. After resetting, the device may take a longer time to power on. Documents and files are unaffected.



Sensor settings


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**.

Press , and select **Tools > Settings > Phone > Call** to show your phone number or internet id to the person to

whom you are calling, notify you of a waiting call, sound alert for incoming internet calls, set default call type, reject calls with SMS and enter the text used in the reply, show image in video calls, redial automatically, show call duration and summary, activate speed dial and answering by pressing any key, and choosing the line when using two telephone lines.

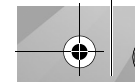
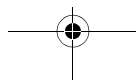
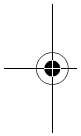
Call

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.



Settings

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. 112.

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. 107.

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.

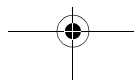
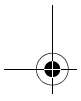
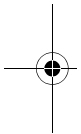
Call barring

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

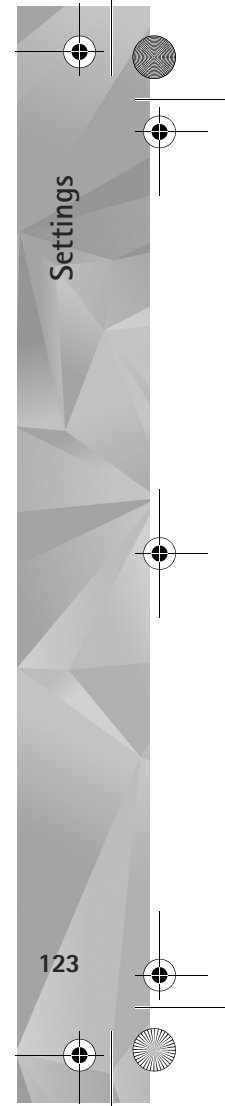
Your device can automatically switch between the GSM and UMTS networks. The GSM network is indicated with  in the standby mode. The UMTS network is indicated with **3G**.

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. 78.

For settings for Bluetooth connectivity, see 'Bluetooth connectivity', 'Settings', p. 75.

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. 72. 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, 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. 73.

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

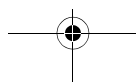
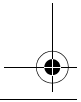
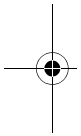
Follow the instructions from your service provider.

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.

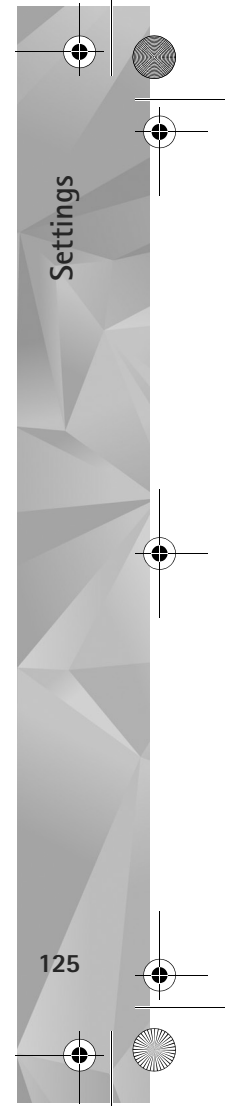
Proxy server address—Define the address for the proxy server.

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**



Settings

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

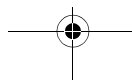
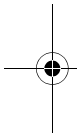
The packet data settings affect all access points using a packet data connection.

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

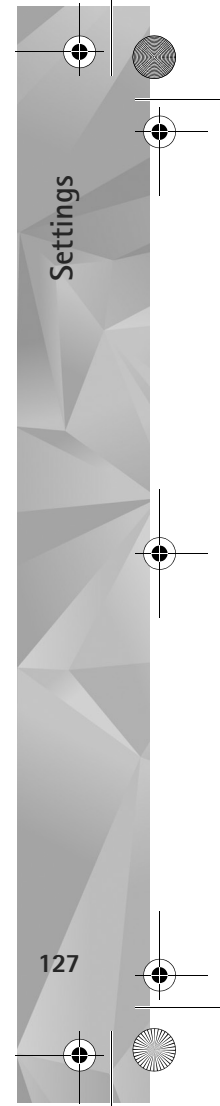
Select **User defined** or **Unlimited** to define the time-out period after which data call connections automatically end if no data has been transferred. If you select **Unlimited**, the connection stays active until you disconnect it.

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.



Settings

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

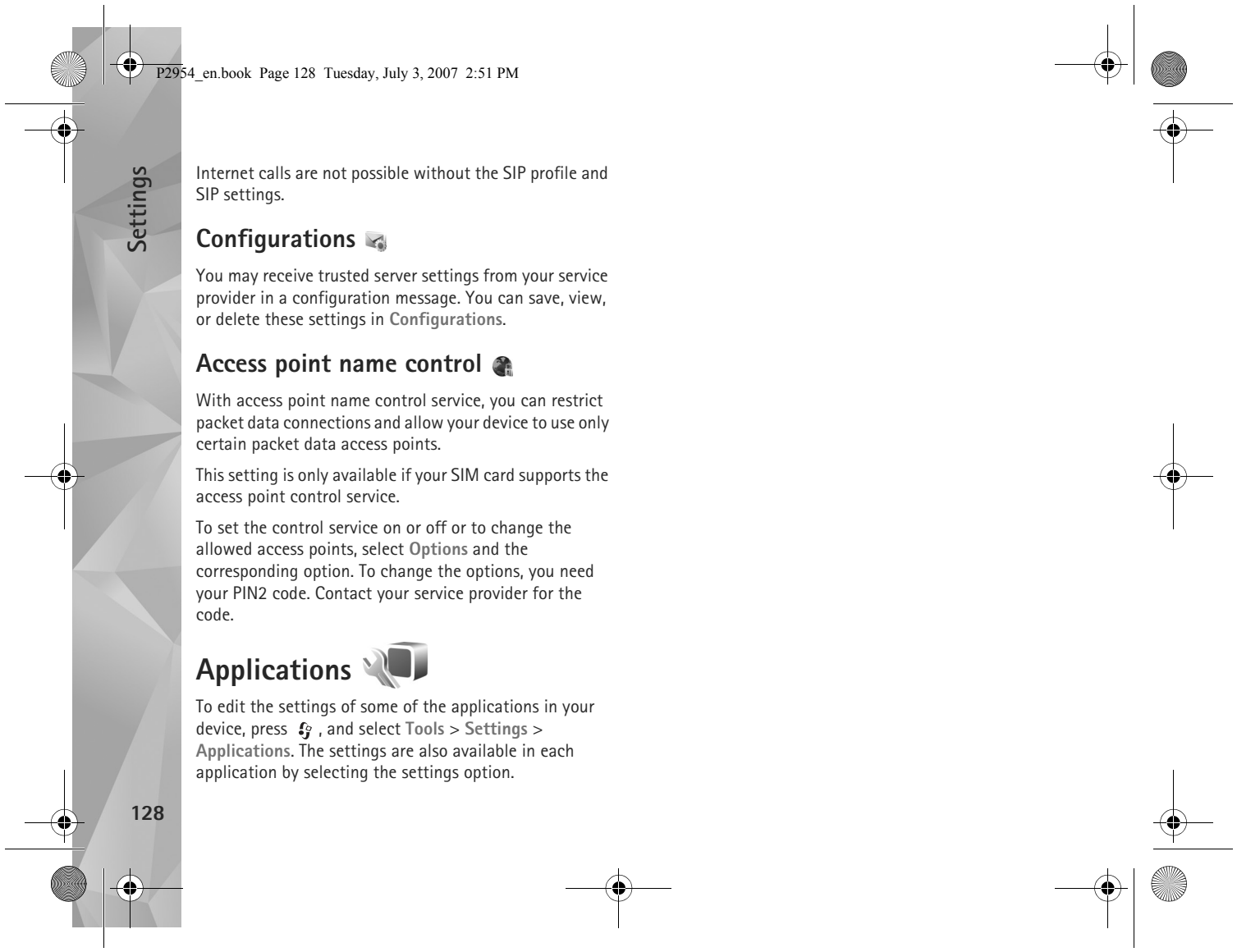
With access point name control service, you can restrict packet data connections and allow your device to use only certain packet data access points.

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. 72, and 'Connection', p. 124.

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. 70.

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.

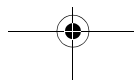
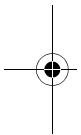
Q: How do I switch wireless LAN (WLAN) off on my Nokia device?

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

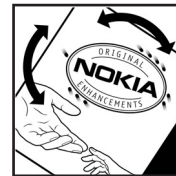
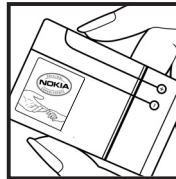


an authorized Nokia dealer, look for the Nokia Original Enhancements logo on the packaging, and inspect the hologram label using the following steps:

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

Authenticate hologram

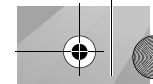
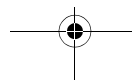
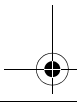
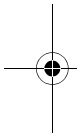
- 1 When looking at the hologram on the label, you should see the Nokia connecting hands symbol from one angle and the Nokia Original Enhancements logo when looking from another angle.
- 2 When you angle the hologram left, right, down, and up, you should see 1, 2, 3, and 4 dots on each side respectively.



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

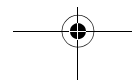
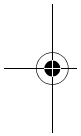
Your device and its enhancements may contain small parts. Keep them out of the reach of small children.

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.



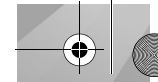
Medical devices

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.



Additional safety information

- 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

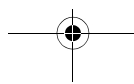
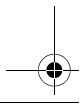
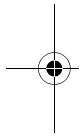
 **Important:** Wireless phones, including this device, operate using radio signals, wireless networks, landline networks, and user-programmed functions. Because of this, connections in all conditions cannot be guaranteed. You should never rely solely on any wireless device for essential communications 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.



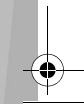
Certification information (SAR)

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.

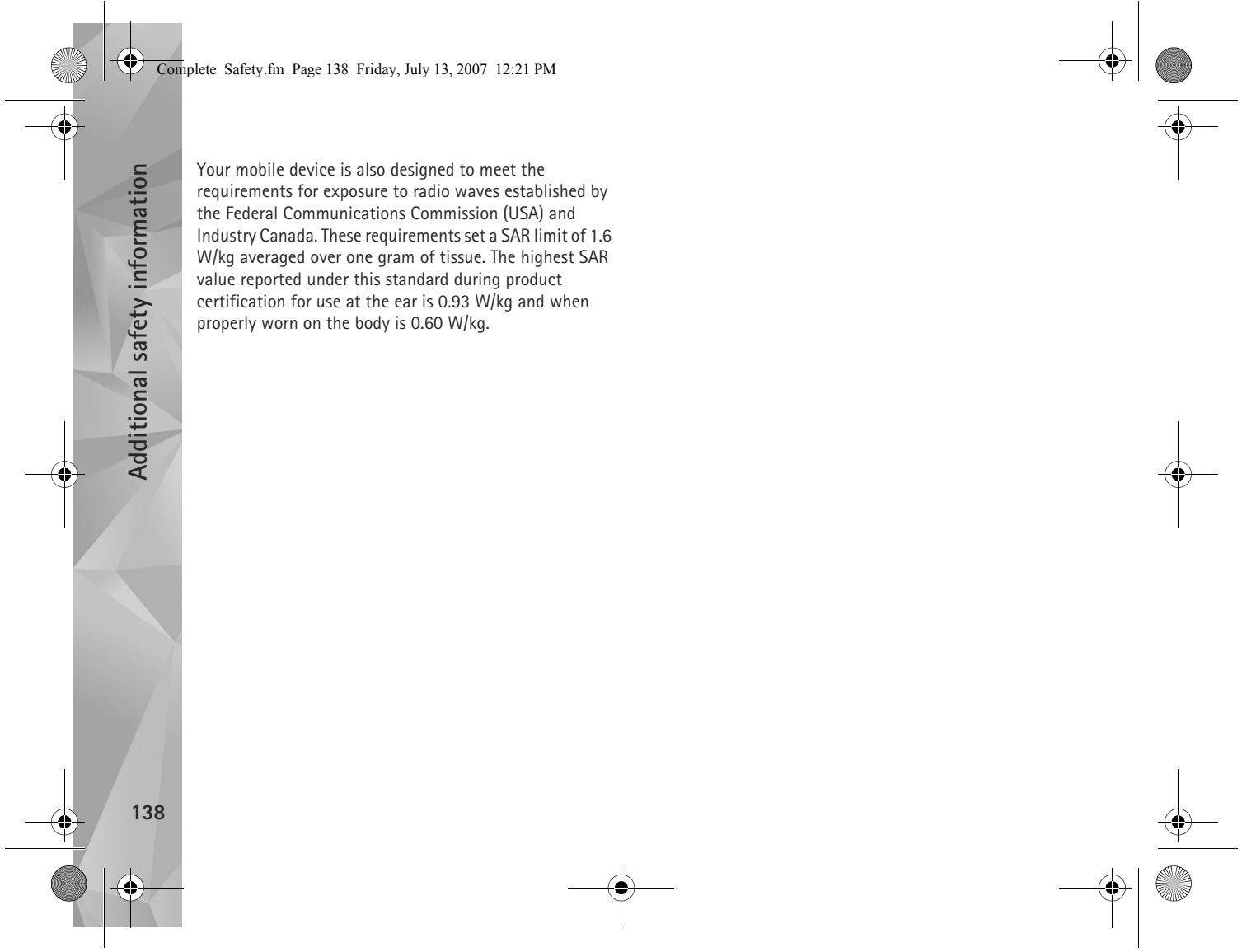
The exposure guidelines for mobile devices employ a unit of measurement known as the Specific Absorption Rate or SAR. The SAR limit stated in the ICNIRP guidelines is 2.0 watts/kilogram (W/kg) averaged over 10 grams of tissue. Tests for SAR are conducted using standard operating positions with the device 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 1.15 W/kg.

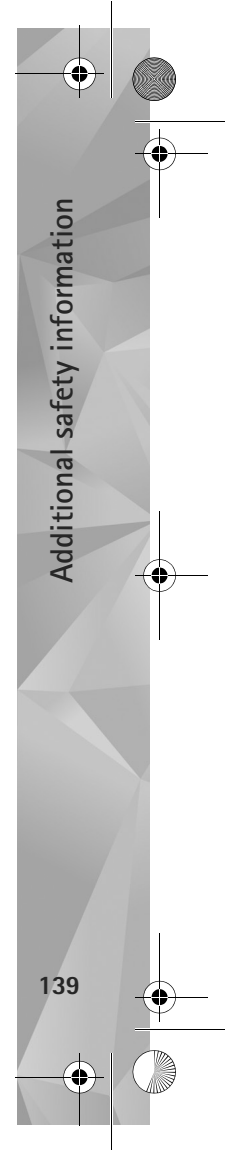
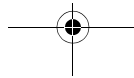
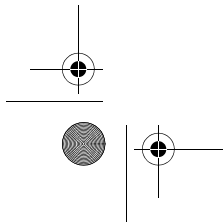
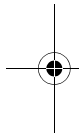
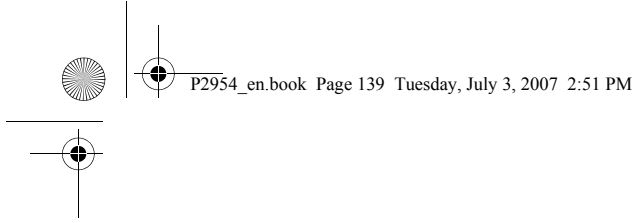
Use of device accessories and enhancements may result in different SAR values. SAR values may vary depending on national reporting and testing requirements and the network band. Additional SAR information may be provided under product information at www.nokia.com.



Additional safety information

Your mobile device is also designed to meet the requirements for exposure to radio waves established by the Federal Communications Commission (USA) and Industry Canada. These requirements set a SAR limit of 1.6 W/kg averaged over one gram of tissue. The highest SAR value reported under this standard during product certification for use at the ear is 0.93 W/kg and when properly worn on the body is 0.60 W/kg.





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